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Régions des Centre et de l'Arctique, du Québec,  
de Terre-Neuve-et-Labrador, du Golfe et des  
Maritimes

### Relative Risk Assessment for ship-mediated introductions of aquatic nonindigenous species to the Atlantic Region of Canada

### Évaluation des risques relatifs concernant l'introduction d'espèces aquatiques non indigènes par des navires dans la région du Canada atlantique

J.K. Adams<sup>1</sup>, S.M. Ellis<sup>1</sup>, F.T. Chan<sup>2</sup>, J.E. Bronnenhuber<sup>2</sup>, A.G. Doolittle<sup>1</sup>, N. Simard<sup>3</sup>,  
C.H. McKenzie<sup>4</sup>, J.L. Martin<sup>5</sup>, S.A. Bailey<sup>1</sup>

<sup>1</sup>Great Lakes Laboratory for Fisheries and Aquatic Sciences, Fisheries and Oceans Canada,  
867 Lakeshore Road, Burlington, ON L7R 4A6

<sup>2</sup>Great Lakes Institute for Environmental Research, University of Windsor,  
401 Sunset Ave., Windsor, ON N9B 3P4

<sup>3</sup>Institut Maurice-Lamontagne, Fisheries and Oceans Canada,  
850, route de la Mer, P.O. Box 1000, Mont-Joli, QC G5H 3Z4

<sup>4</sup>Northwest Atlantic Fisheries Centre, Fisheries and Oceans Canada,  
P.O. Box 5667, St. John's, NL A1C 5X1

<sup>5</sup>St. Andrews Biological Station, Fisheries and Oceans Canada,  
531 Brandy Cove Road, St. Andrews, NB E5B 2L9

This series documents the scientific basis for the evaluation of aquatic resources and ecosystems in Canada. As such, it addresses the issues of the day in the time frames required and the documents it contains are not intended as definitive statements on the subjects addressed but rather as progress reports on ongoing investigations.

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**ABSTRACT**

Ballast water has historically been the predominant ship-mediated vector for aquatic nonindigenous species (NIS) introductions to Canada, while hull fouling is recognized as a leading sub-vector for the introduction of marine aquatic NIS worldwide. A number of high impact NIS have established in the Atlantic region of Canada during the past two decades, with the coastal waters around Prince Edward Island now being one of the most heavily invaded marine ecosystems in Canada. A series of regulatory changes enacted by Canada in the past decade may have slowed the rate of ship-mediated invasions and facilitated changes in invader characteristics. The objective of this report was to conduct a relative risk assessment of shipping vectors (hull fouling and ballast water) to commercial ports in Atlantic Canada and the Gulf/Estuary of St. Lawrence; a subsequent national risk assessment will utilize data from the regional risk assessments to examine risk from a 'pathway' perspective. The risk posed by a NIS is the product of the probability of introduction and the consequences of introduction. First, the probability of introduction was estimated by combining the individual probabilities of successful transition through each stage of the invasion process (i.e., arrival, survival and establishment) based on ship arrival/ballast water discharge data and environmental conditions at Atlantic ports and potential source ports. Second, the potential magnitude of consequences of introduction was estimated based on the number of high impact ship-mediated NIS recorded for eco-regions of ports directly connected to Atlantic ports through shipping activities. The probability of introduction and potential magnitude of consequences were then combined for a final invasion risk rating. Finally, we identify priorities and make recommendations for future management needs.

A transit analysis shows that Atlantic ports are connected with international and domestic ports, resulting in potential for species transfers *via* hull fouling and ballast water discharge from foreign ports as well as through secondary spread. The final relative invasion risk for nonindigenous species *via* hull fouling was higher for Dartmouth-Halifax (Nova Scotia), intermediate for Canso-Mulgrave – Point Tupper (Nova Scotia), Saint John (New Brunswick), Blacks Harbour (New Brunswick), North Head (New Brunswick), Saint-Siméon (Québec), Rivière-du-Loup (Québec), Isle-aux-Grues (Québec), and Matane (Québec), and lower for all remaining top Atlantic ports. The final relative invasion risk for nonindigenous species *via* ballast water was higher for Sept-Îles (Québec), intermediate for Come By Chance-Whiffen Head (Newfoundland), Port-Cartier (Québec), Saint John (New Brunswick), and lower for all remaining top Atlantic ports. It is important to note that estimated invasion probabilities and risk ratings presented in this document are relative, and that rankings of "lower" or "lowest" do not indicate zero risk.

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## RÉSUMÉ

Au Canada, l'introduction d'espèces aquatiques non indigènes par les navires se produit surtout par les eaux de ballast, alors qu'à l'échelle mondiale, ce sont les salissures biologiques de la coque des navires qui sont reconnues comme le principal sous-vecteur d'introduction. Un nombre élevé d'espèces non indigènes à fort impact s'est établi dans la région du Canada atlantique au cours des deux dernières décennies, avec les eaux côtières qui entourent l'Île-du-Prince-Édouard figurant parmi les écosystèmes marins les plus envahis au Canada. Au cours des dix dernières années, une série de modifications réglementaires par le gouvernement du Canada pourraient avoir ralenti le rythme des introductions des espèces non-indigènes par les navires et avoir entraîné des changements dans les caractéristiques des espèces envahissantes. Ce rapport a pour objectif d'évaluer les risques relatifs des vecteurs d'introduction par les navires (salissures de la coque et les eaux de ballast) dans les ports du Canada atlantique et du golfe et de l'estuaire du Saint-Laurent. Ultérieurement, une évaluation nationale du risque utilisera des données en provenance des évaluations régionales afin d'examiner le risque sous une perspective de « voies d'introduction ». Le risque que représentent les espèces non indigènes est le produit de la probabilité de leur introduction et des conséquences de celle-ci. Tout d'abord, la probabilité d'introduction a été estimée en combinant les probabilités de réussite de transition à chaque étape du processus d'invasion (c.-à-d. l'arrivée, la survie et l'établissement), selon les données sur l'arrivée des navires et le déversement des eaux de ballast, les conditions environnementales dans les ports de l'Atlantique et les ports potentiels d'origine. Deuxièmement, l'ampleur potentielle des conséquences de l'introduction a été estimée selon le nombre d'espèces non-indigènes à fort impact introduites par des navires et relevées dans les écorégions des ports directement reliés aux ports de l'Atlantique par des activités de navigation. La probabilité d'introduction et l'ampleur des répercussions potentielles ont ensuite été combinées pour déterminer le risque final d'invasion. Enfin, des priorités ont été déterminées et des recommandations ont été formulées pour les futurs besoins de gestion.

Une analyse des déplacements montre que les ports de l'Atlantique sont reliés à d'autres ports nationaux et étrangers, ce qui entraîne l'introduction potentielle d'espèces non-indigènes via les salissures de coque des navires et le déversement des eaux de ballast provenant de ports étrangers, mais également une propagation secondaire potentielle. Le risque relatif final pour les espèces non-indigènes via les salissures de coque des navires a été plus élevé pour Dartmouth-Halifax (Nouvelle-Ecosse), modéré pour Canso-Mulgrave-Point Tupper (Nouvelle-Écosse), Saint John (Nouveau-Brunswick), Blacks Harbour (Nouveau-Brunswick), North Head (Nouveau-Brunswick), Saint Simeon (Québec), Rivière du Loup (Québec), Isle aux Grues (Québec) et Montane (Québec), et faible pour le restant des principaux ports de l'Atlantique. Le risque relatif final d'invasion pour les espèces non-indigènes via les eaux de ballast a été plus élevé pour Sept-Îles (Québec), modéré pour Come By Chance-Whiffen Head (Terre-Neuve), Port-Cartier (Québec), Saint John (Nouveau-Brunswick), et faible pour le restant des principaux ports de l'Atlantique. Il est important de noter que l'estimation des probabilités d'invasion et le taux de risque présentés dans le présent document sont relatifs, et les taux « faibles » et « très faibles » ne représentent pas une absence de risque.

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## INTRODUCTION

Species that have established populations outside of their native range are known as nonindigenous species (NIS). The impact of NIS invasions has become increasingly problematic as globalization has increased both intentional and unintentional species transfers, allowing the establishment of NIS worldwide. NIS may impact recipient ecosystems by competing with native species for limited resources and disrupting the natural food web (Shea and Chesson 2002; Molnar et al. 2008). In fact, NIS introductions are the second greatest cause of extinction globally and the greatest threat to biodiversity in freshwater and marine ecosystems (Sala et al. 2000; MEA 2005; Lawler et al. 2006). NIS have caused irreparable damage to ecosystem function and natural resources in many terrestrial and aquatic systems (Carlton and Geller 1993; Allen and Humble 2002; Crooks 2005; Pimentel et al. 2005). Resultant long-term economic consequences have impacted industry and society both directly and indirectly amounting to costs between \$13.3 and \$34.5 billion/year in Canada alone (Mack et al. 2000; MEA 2005; Colautti et al. 2006a). Examples of aquatic NIS impacts include the depletion of commercially important fisheries, increased industrial maintenance costs from NIS-fouled equipment, and the need for ongoing, costly mitigation programs. All ecosystems are vulnerable to, and may suffer severe impacts from NIS, unless comprehensive prevention and management programs are introduced (United States Congressional Office 1993).

The objective of this report is to conduct a semi-quantitative, relative risk assessment of two shipping vectors (hull fouling and ballast water) to Canadian Atlantic ports, as a sub-component of a national risk assessment for the four coasts of Canada (including also the Arctic, Pacific Coast and the Great Lakes-St. Lawrence River). Relative risk assessment does not assign a fixed numerical value to the probability of an invasion, however, it is a useful tool to identify and prioritize research needs, resource allocation and policy decisions. It should be noted that it was not possible to calibrate the relative risk ratings against a set of known invasion data; therefore, rankings of “lower” or “lowest” should not be considered zero risk.

Once all regional documents are completed, a national risk assessment will be completed which re-evaluates the relative risks on a national scale and addresses the following questions posed to the authors by formal science advice request in advance of the project:

1. What is the level of risk posed by ships transiting to, or from, Arctic ports for the introduction of AIS to Canadian waters;
2. What is the level of risk posed by ships operating within the ballast water exchange exemption zones on the East and West Coasts;
3. What is the level of risk posed by domestic shipping activities; and
4. Do current ballast water management regulations provide sufficient protection against ship-mediated AIS introductions?

In general, each regional report will provide a synopsis of biological invasion theory, the role of shipping vectors in species introductions, the history and concerns of AIS in the region, and the port-based risk assessment. This particular document provides guidance on the relative risks of ship-mediated introductions to ports in the Atlantic coast of Canada, as measured by the product of the probability of introduction and the magnitude of consequences of introduction; a subsequent national risk assessment will utilize data from the regional risk assessments to examine risk from a ‘pathway’ perspective. This risk assessment is based upon the best available information and methodology, and was peer-reviewed at a workshop attended by international aquatic invasive species, shipping and risk assessment experts overseen by DFO's Centre of Expertise for Aquatic Risk Assessment.

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## **THE BIOLOGICAL INVASION PROCESS**

Founding individuals, known as propagules, must pass through multiple stages of the invasion process to be successfully introduced to a new location (Figure 1). First, the propagules must be taken up by, and survive conditions within, a transport vector to be moved from the source region to a new environment. Once released, the propagules must survive in the new environment. If enough propagules successfully arrive, survive and form a reproductive population (Establishment), the recipient habitat can then act as a new source of propagules for secondary spread, making the process cyclical. The successful transition between any two stages of the invasion process is dependent on at least three factors: propagule pressure, physical-chemical requirements and biological requirements. Propagule pressure is a measure of the number of propagules released per event coupled with the number of release events over a given time period and is positively related to the probability of introduction (Wonham et al. 2000; Kolar and Lodge 2001; Colautti et al. 2006b). Physical-chemical and biological requirements directly affect transition between invasion stages, with inhospitable environmental conditions (e.g., intolerable temperature, salinity, or substrate type) or community interactions (e.g., severe predation or limited food supply) decreasing the probability of introduction (Lockwood et al. 2006, 2009). Efforts to manage NIS introductions can target any or all stages of the invasion process, although preventative efforts focused at reducing propagule pressure at the transportation stage are regarded as most effective and cost-efficient (ISSG 2000; ANSTF 2007). Since transportation vectors are numerous, risk assessments identifying priority or high-risk vectors are necessary to direct limited resources for control efforts.

## **THE ROLE OF SHIPPING AS A PATHWAY OF AQUATIC NIS INTRODUCTIONS**

Transportation vectors for aquatic NIS in Canada's freshwater and marine ecosystems include intentional (i.e., authorized stocking programs) and unintentional releases of aquatic species. Unintentional releases are associated with commercial shipping activities (e.g., ballast water discharge or hull fouling), escape from aquaculture facilities, stock transfers for aquaculture activities (e.g., stock relocations which contain NIS hitchhikers) and unauthorized releases of aquarium, bait fish, and ornamental pond species. Commercial shipping activities are of particular interest because shipping has been implicated in a substantial number of aquatic invasions globally and management strategies for this vector are relatively straight-forward and enforceable (Carlton 1985; Ruiz et al. 2000; Leppäkoski et al. 2002; MacIsaac et al. 2002; Grigorovich et al. 2002, 2003; Ruiz and Carlton 2003).

Ballast water has historically been the focus of shipping vector research for aquatic NIS introductions to Canada (Ricciardi 2001; de Lafontaine and Costan 2002). Natural adjacent water is pumped into ballast tanks to control the trim, stability and stresses on operational ships. Diverse communities of plankton present in the water column may be inadvertently pumped into ballast tanks during water uptake, transported to the destination port and subsequently released (Carlton 1985). In this way, ballast water transfer allows plankton to travel distances far greater than natural dispersal via active or passive mechanisms (Locke et al. 1993; Minton et al. 2005; Blakeslee et al. 2010). Port sediments, and the associated benthic community, can also be resuspended and entrained in ballast tanks during uptake of ballast water (Bailey et al. 2003; Duggan et al. 2005; Kipp et al. 2010). Suspended sediments can settle out of ballast water and accumulate on the bottom of ballast tanks, providing good habitat for benthic life stages and resting eggs and serving as an additional transport vector for NIS (Bailey et al. 2005; Duggan et al. 2005, 2006). The amount of sediment and associated fauna resuspended and released during ballast discharge is thought to be low, but studies indicate ballasting operations may promote hatching of resting stages within ballast tanks such that individuals can enter the water column and be available for release (Bailey et al. 2005). Furthermore, water-sediment slurries

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may form in tanks with only residual ballast or during in-tank mixing events (ballast uptake/discharge), providing an intermediate medium for NIS survival and introduction to recipient waters. The transfer of aquatic NIS *via* ballast water, slurry or sediment can be managed by regulating ballast practices since ballast water discharge is required for the release of individuals from ballast tanks. The physical removal of accumulated sediment may be necessary given that ballast discharge is thought to have a minimal effect on sediment flushing (Duggan et al. 2005). Conversely, the transport and release of taxa associated with the external underwater surfaces of a vessel, hereafter referred to as 'hull', is not directly dependent on the ship's ballast activities and is more difficult to manage (Carlton 1985; Minchin and Gollasch 2003). Ship hulls, sea chests, propellers and other underwater surfaces can harbour fouling organisms, such as algae, ascidians, hydroids, bryozoans, barnacles and bivalves (i.e. sessile taxa), in dense colonies that offer crustaceans and other motile organisms structural habitat and protection against the shearing forces experienced during ship movement, hereafter generalized as 'hull fouling' (Gollasch 2002; Lewis et al. 2004). Fouling taxa can be detached from the hull or can release reproductive propagules at any time along the vessel transit, thereby potentially establishing a nonindigenous population in any location through which the vessel travels. In fact, hull fouling is now recognized as a leading vector for the introduction of marine aquatic NIS worldwide (Carlton 1985; Gollasch 2002; Coutts et al. 2003). Anchor chains, which are submerged in water at port and relatively protected during transit, are an additional, potentially important mechanism of ship-mediated introductions (West et al. 2007). However, because anchor chains are poorly studied as a vector of introductions, we are not able to assess the relative importance of this vector. While shipping activities may also be important vectors for terrestrial NIS introductions through the movement of wood dunnage and/or infested cargo containers, the analysis of ship-mediated terrestrial introductions is beyond the scope of this study.

Ship type, ship size and trade patterns influence the invasion risk associated with a given vessel and its associated vectors (Simkanin et al. 2009). Vessels that rely heavily on ballast water for cargo operations, such as bulk carriers and tankers, are high-risk for transportation of aquatic NIS *via* ballast water and sediment. Risk is concordant with ship size since ship size influences the amount and capacity of ballast tanks. Vessels that typically do not discharge ballast water, such as passenger vessels, barges and tugboats, are less important for introductions *via* ballast water and sediment. Trans-oceanic vessels are considered high-risk for aquatic NIS introductions because they provide a mechanism for the fauna of distant ports to be exchanged (Carlton 1985), however Laker or coastal vessels have the potential to contribute to the secondary spread of established aquatic NIS (Humphrey 2008; Cordell et al. 2008; Simkanin et al. 2009; Rup et al. 2010; DiBacco et al. 2012).

More recently, hull fouling has been identified as an important vector of marine NIS. In contrast to ballast water, ship type does not influence risk because all vessels have the capacity to transport fouling organisms on exterior surfaces, regardless of ballasting practices. Hull fouling risk is influenced by season, mooring time, elapsed time since last antifouling application, vessel speed and trade route (Coutts 1999; Ruiz and Smith 2005; Sylvester and Maclsaac 2010). As mooring time and/or time since last antifouling coating increase, the risk associated with a given vessel increases because more fouling organisms are able to accumulate (Coutts 1999; Minchin and Gollasch 2003; Sylvester and Maclsaac 2010). The invasion risk decreases as vessel speed increases, because high speeds can remove or kill organisms attached to the hull (Coutts and Taylor 2004). In addition to the level of risk, trade patterns influence the type of introductions that can be expected from a vector. In the case of hull fouling, the shipping route influences the conditions to which organisms are exposed during transit thereby influencing survival rates. Ships that trade coastally are more likely to be a risk for invasion than ships that must pass through waters of varying environments, as there will be little change in salinity



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(Sylvester and MacIsaac 2010). Moreover, some fouling organisms, such as bryozoans and isopods, are capable of surviving broad changes in salinity (0 – 37 ppt), temperature (9.9 – 31.6 °C), latitude (32°) and longitude (43°) (Davidson et al. 2008).

Consideration of factors affecting NIS introductions can be used to better predict high-risk introduction vectors for Canada. Given that these factors will affect invasion risk in different ways for different recipient regions, risk must be assessed separately for the different regions of Canada. Here, we conduct a risk assessment for ship-mediated introductions of aquatic NIS to ports in the Atlantic region as a sub-component of a national risk assessment for ship-mediated introductions to Canada.

## **BALLAST WATER MANAGEMENT REGULATIONS**

While aquatic invasions have become a major concern in Atlantic Canada during the past two decades, a series of Canadian and International regulatory changes may have slowed the rate of invasion and facilitated changes in invader characteristics (Dextrase 2002; Bailey et al. 2011). Ballasted transoceanic ships have been considered risky for aquatic NIS introductions because each ship can discharge a large volume of ballast which can contain a high number of propagules. On average, ships in the Atlantic region discharge 39,842 m<sup>3</sup> of ballast water per vessel, whereas ships in the Pacific and Great Lakes regions discharge 13,915 m<sup>3</sup> and 5,190 m<sup>3</sup> respectively (Humphrey 2008). To prevent aquatic NIS introductions, Canada established ballast water management regulations (voluntary in 2000, mandatory as of June 2006) requiring all vessels entering and operating in Canadian waters, that are at least 50 m in length with a minimum ballast capacity of eight m<sup>3</sup>, to undertake ballast water exchange at sea (Transport Canada 2007), with the following exceptions:

- i. ships that operate exclusively in Canadian waters,
- ii. ships that operate exclusively in the American waters of the Great Lakes or the French waters of St. Pierre and Miquelon when outside Canadian waters,
- iii. search and rescue vessels,
- iv. vessels used in government non-commercial service,
- v. ships that carry only permanent ballast in sealed tanks.
- vi. ships that operate exclusively between ports, offshore terminals or anchorage areas situated on the Atlantic coast of North America north of Cape Cod, within the Bay of Fundy, along the east coast of Nova Scotia, or the south or east coasts of the island of Newfoundland.

Ballast water exchange (BWE) is a process in which a ship exchanges ballast water loaded near shore with open-ocean saltwater. Empirical studies indicate that BWE purges 80 – 100% of coastal planktonic organisms entrained at the source port and the efficiency is variable with respect to the characteristics of ships, voyages, types of BWE procedures, exchange sites and different organisms (Rigby and Hallegraeff 1994; Dickman and Zhang 1999; Lavoie et al. 1999; Taylor and Bruce 2000; Rigby 2001; Taylor et al. 2007; McCollin et al. 2008; Cordell et al. 2009; Lawrence and Cordell 2010; Simard et al. 2011). To maximize BWE efficacy, vessels practicing empty-refill exchange must replace a minimum of 95% of their ballast water, whereas flow-through exchange must pump a minimum of three tank volumes through each ballast tank (Transport Canada 2007). Transoceanic vessels must exchange ballast water ≥ 200 nautical miles from land where water depth is ≥ 2000 meters and must achieve a final salinity of ≥ 30 parts per thousand (Transport Canada 2007). If the vessel does not pass an area that meets the minimum requirements during its voyage (e.g., international coastal vessels), Canada will accept exchange in an area ≥ 50 nautical miles from shore where the water depth is ≥ 500

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meters (Simard and Hardy 2004, Brickman et al. 2004, McKenzie et al. 2011). If ballast water exchange is not feasible for a foreign vessel prior to entering the Gulf of St. Lawrence due to logistics or safety concerns, ships are permitted to undergo BWE in an alternate exchange zone in the Laurentian Channel south of 43°30' latitude where depth exceeds 1000 meters, after receiving permission from Transport Canada (Department of Justice Canada 2011). Similarly, vessels transiting to the northeast of Newfoundland may undergo BWE in the alternate exchange zone  $\geq 50$  nautical miles offshore where water depth exceeds 500 meters (McKenzie et al. 2011). Foreign vessels transiting to the Bay of Fundy or across the Scotian Shelf should exchange in the alternate ballast water exchange zone in the Gulf of Maine in water depths of at least 100 meters, while vessels transiting to Nova Scotia along the edge of the Scotian Shelf may undergo BWE in the alternate exchange zone between 69° W and 60° W and in waters deeper than 1000 meters (Brickman et al. 2004).

Prior to 2006, ships declaring no ballast on board (NOBOB) were exempt from BWE because ballast tanks were considered empty by industrial standards. Further research in the Great Lakes revealed that ships declaring NOBOB can contain tonnes of unpumpable residual water, slurry and/or sediment that may introduce NIS during multi-port ballast operations (Bailey et al. 2003; Colautti et al. 2003; Duggan et al. 2005). As a result, Canada implemented the *Ballast Water Control and Management Regulations* requiring tank flushing of unpumpable residuals as well as BWE, such that all ballast tanks entering Canadian waters are managed (Department of Justice Canada 2006). Similar to BWE, tank flushing involves rinsing 'empty' tanks with open-ocean water in an area  $\geq 200$  nautical miles from shore to achieve a final salinity of  $\geq 30$  parts per thousand (Department of Justice Canada 2006). Non-compliant ships are required to either: (i) retain all non-compliant ballast water on board while in Canadian waters, (ii) exchange ballast water at a specified location, (iii) discharge ballast water at a specified location, or (iv) treat ballast water in accordance with an approved method (Department of Justice Canada 2006). As of yet, no alternative treatments have been approved by Canada, although sodium chloride brine has been examined as an emergency treatment for non-compliant tanks of ships on the Great Lakes (Bradie et al. 2010; Wang et al. 2012). Additionally, the uptake of sediment must be minimized, and sediment management procedures, such as monitoring and removal of sediment on a regular basis and deposition at a reception facility, must be incorporated into a vessel's ballast water management plan.

The International Maritime Organization (IMO), an agency of the United Nations that works to improve maritime safety and prevent pollution from ships, introduced the *International Convention for the Control and Management of Ships Ballast Water and Sediments*, also known as the Ballast Water Convention in February 2004 (IMO 2004). This convention, which is yet to be ratified, sets maximum allowable discharge limits, known as the IMO D-2 discharge standard, for organisms and indicator microbes released with ballast water after ballast treatment. In addition to maximum discharge limits, the Convention will require that BWE be completely phased out and replaced by on-board treatment systems by 2016, although both Canada and the U.S. have proposed retaining BWE in combination with treatment to provide enhanced protection to freshwater habitats (IMO 2010; EPA 2011). There are at least 59 treatment systems in development that use various mechanisms such as filtration, biocides, heat exposure, electric pulse treatment, ultraviolet rays, ultrasound, magnetic fields, deoxygenation, and antifouling coatings to eliminate ballast water taxa (NRC 1996; Lloyd's Register 2011; Mamlook et al. 2008), although no treatment systems have been approved for use in Canada to date. Domestic vessels operating exclusively within Canadian waters are currently exempt from Canadian ballast water regulations.

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## HISTORY OF AQUATIC NIS IN THE ATLANTIC REGION OF CANADA

The Atlantic region of Canada constitutes the coastline and waters of the Estuary and Gulf of St. Lawrence east of Québec City, Bay of Fundy and Atlantic Coast waters, which includes the coastline of the four Atlantic provinces of Canada: Newfoundland and Labrador, Prince Edward Island, Nova Scotia, and New Brunswick. Canada's Atlantic Coast is home to some of the most biologically productive marine environments in the world. Historically, this region has been significant for finfish, lobster, codfish, halibut, and bivalve fisheries, although overfishing has decimated many native fish populations, and today aquaculture, tourism and mining are gaining importance (Environment Canada 2005a). Aquaculture activities primarily involve the harvest of finfish such as Atlantic salmon (*Salmo salar*), and shellfish, including mussel and oyster (Environment Canada 2005b). Since the fishing industries of Canada's Atlantic maritime region are so reliant on the health of its aquatic ecosystems, it is essential to protect these ecosystems by preventing the introduction and establishment of NIS.

The Atlantic region is home to five Canadian Port Authorities, 584 small craft harbours, and over 77 major commercial ports (DFO 2011a; Transport Canada 2011). Many Atlantic ports are remote ports, located along the northern coastline of Québec and Labrador, where localities are connected only by sea. Before 1900, ships used solid ballast, such as rock, sand and mud found along the shoreline. Solid ballast often contained seeds and terrestrial insects and it was not uncommon for nonindigenous plant and insect species to be found in locations where ballast was commonly discharged (Mills et al. 1993; Ricciardi 2006). When technological advances permitted ballast water to replace solid ballast, the influx of terrestrial NIS slowed and aquatic NIS became more prevalent; since ballast water intake screens do not exclude the uptake of small organisms, a series of fish, zooplankton and phytoplankton invasions occurred (Ricciardi 2006). On average, ballasted vessels entering the Atlantic region of Canada carry  $39,842 \pm 4,983 \text{ m}^3$  of ballast water (Humphrey 2008). The high volume of ballast carried by incoming ships combined with a high level of shipping activity makes Canada's Atlantic coast further susceptible to NIS establishment.

As of 2011, 112 aquatic NIS had established on Canada's Atlantic coast (Martin and LeGresley 2008; Locke and Hanson, unpubl. data), causing much destruction well illustrated by high-impact invaders such as the European green crab, the oyster thief, and some tunicates (Clarke and Therriault 2007; Klassen and Locke 2007; Simard et al. 2007; Carver et al. 2006a, b; Jamieson 2002). The European green crab was first observed in the Atlantic region along the outer coast of Nova Scotia and New Brunswick (Bay of Fundy) in the early 1950s. The invasive crab is now spreading at a much faster rate than when concentrated only around the outer coast of Nova Scotia, and has entered the Gulf of St. Lawrence through the Canso Strait and Newfoundland (Blakeslee et al. 2010). The European green crab preys upon commercially valuable clams and crabs and has threatened many important fisheries (Audet et al. 2003; Klassen and Locke 2007; DFO 2011b). The oyster thief, a species of green alga native to Japan, was first detected in Nova Scotia in 1989, and was likely introduced *via* hull fouling or aquaculture (Bird et al. 1993). It smothers mussels and oysters, competes with native kelp, and has destroyed habitat for sea urchins and lobster (Scheibling and Anthony 2001; Trowbridge 1998). Economic hardships have resulted from the oyster thief's interference with the shellfish industry (Drouin and McKindsey 2007; Scheibling and Gagnon 2006). Recent high impact invasions in Atlantic Canada have involved several species of nonindigenous tunicates (Locke et al. 2007; Callahan et al. 2010). Invasive tunicates have become a global concern to marine environments, as once established in an area they become a major fouling species, impacting native species and communities (Dijkstra et al. 2007; Lutz-Collins et al. 2009). Nonindigenous ascidians have been shown to impact shellfish aquaculture industries due to high occurrence of attachment and overgrowth on aquaculture equipment and gear, resulting in increased

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operation and production costs. The clubbed tunicate (*Styela clava*) was introduced into the waters of Prince Edward Island in 1997. *S. clava* settles on mussel gear and interferes with larval settlement and competes for food and space with young mussels thereby negatively affecting aquaculture (Locke et al. 2009). Serious economic losses to the blue mussel aquaculture industry in Prince Edward Island since the 1990s have been attributed to the invasion of nonindigenous tunicates (Howes et al. 2007). Although these cases are not representative of all NIS, the large impacts caused by approximately 10% of aquatic NIS validate the need for comprehensive prevention and control programs (Ricciardi and Kipp 2008).

## **SPECIFIC ISSUES OF CONCERN TO THE ATLANTIC REGION**

### **HULL FOULING**

Hull fouling is known to be an important vector for the transfer of marine and coastal aquatic NIS (Carlton 1985; Gollasch 2002; Coutts et al. 2003), and has recently become a particular concern for the introduction and spread of tunicates in Atlantic Canada. Not only have international vessels aroused concerns for hull-mediated arrival of NIS, but Darbyson et al. (2009) flagged the importance of hull-mediated secondary spread of NIS *via* non-merchant domestic recreational and fishing vessels. While shipping companies have historically worked to minimize biological fouling of exterior underwater surfaces since fouling increases drag and decreases fuel economy and ship speed, a 2008 international ban on the use of the highly effective tributyl tin-based anti-fouling paint may have increased the importance of hull fouling as an invasion vector. While Canada does have regulations regarding anti-fouling systems, such as the regular application of non-TBT anti-fouling paint (Department of Justice Canada 2012), and has supported the adoption of international guidelines for control and management of ships' biofouling, Canada does not currently have domestic hull fouling regulations.

### **BALLAST-MEDIATED INVASIONS VIA DOMESTIC SHIPPING ACTIVITIES**

There are three types of domestic shipping activity within Atlantic Canada which are not required to manage ballast water: i) Atlantic vessels, which operate exclusively within the Atlantic region; ii) Laker vessels, which operate exclusively within the Great Lakes and the St. Lawrence Estuary; and iii) coastal domestic vessels, which operate exclusively within the Canadian Exclusive Economic Zone (EEZ) between the Great Lakes and the Canadian Arctic (but excluding Laker and Atlantic vessels). Domestic shipping is often overlooked as a vector for NIS transfer, especially for vessels operating within a single biogeographic region. However, intra-coastal shipping can disperse species within a region at much higher rates than would occur naturally, and can also transport species to regions which could not be reached via natural mechanisms (Blakeslee et al 2010; Rup et al. 2010). Since intra-coastal voyages are often short in duration, high survival in ballast tanks is expected and a potentially high number of propagules could be released, making domestic shipping a pathway of interest (Wasson et al. 2001, Simkanin et al. 2009). As Canada does not currently regulate discharges of domestic ballast water, ships can directly transfer ballast water between the Great Lakes, Canadian Arctic, and/or Atlantic ports without any form of management. This transfer of domestic ballast water may facilitate the establishment of NIS in Atlantic waters through the introduction of species which are native to the Great Lakes or Arctic but nonindigenous to the Atlantic or through the secondary introduction (spread) of NIS previously introduced at other Canadian ports.

Recent Atlantic Canada invasions by several tunicate species have increased concern of secondary spread to Atlantic ports. *Ciona intestinalis* is cryptogenic in southern Nova Scotia and

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southern New Brunswick, but is nonindigenous in the Gulf of St. Lawrence and northern Atlantic Canada (LeGresley et al. 2008; Locke 2009; Martin et al. 2011). *Styela clava* is currently an established NIS in Prince Edward Island, however has not been introduced to any other Atlantic province or waterway. As well, the European green crab, first introduced to Atlantic Canada in the 1950s, has a long planktonic larval life-stage, allowing for increased ballast-mediated secondary spread (Carlton 1985). Ballast-mediated secondary spread of tunicates and the European green crab are a danger, both ecologically and economically, to Atlantic Canada.

## **INTERNATIONAL EXEMPTION ZONES**

Current Canadian regulations provide a ballast water exchange exemption for vessels operating exclusively within Atlantic waters north of Cape Cod, Massachusetts, within the Bay of Fundy, along the east coast of Nova Scotia, or the south or east coasts of the island of Newfoundland, based on general biogeographic considerations. However, due to the risk of coastal secondary spread of NIS that first establish at international shipping ports, recent research calls into question regional “common waters” agreements that allow vessels to move intracoastal ballast without any form of management (Levings et al. 2004, Lawrence and Cordell 2010; DiBacco et al. 2012). The exchange exemption may facilitate introduction of established NIS from New England waters to Atlantic Canada, particularly since environmental conditions are likely similar between the two regions. For example, the nonindigenous colonial pancake batter tunicate, *Didemnum vexillum*, is not yet present in Atlantic Canada but is established within the current exemption zone in the Gulf of Maine as far north as Eastport, ME, and on the American side of Georges Bank (Bullard et al. 2007; Martin et al. 2010). A recent study by Locke (2009) listed *D. vexillum* as one of 17 tunicate species most likely to successfully invade Canadian Atlantic waters due to shipping patterns and climate similarity.

## **METHODS**

### **STUDY AREA**

We defined the study area, hereafter referred to as the ‘Atlantic’ region, to include all ports east of Québec City (exclusive) in the Estuary and Gulf of St. Lawrence, and all ports located in Nova Scotia, Labrador and Newfoundland, and the Bay of Fundy (Figure 2). All port areas, wharfs, and harbour zones, hereafter referred to as ports, that received vessel traffic in 2006 were included in the analysis. We limited our analysis to a 12-month period because of the large volume of data and time constraints.

### **DETERMINING HULL FOULING-MEDIATED INVASION RISK**

The risk posed by a NIS is the product of the probability of introduction and the consequences of introduction. The risk assessment for hull fouling-mediated introductions used a three-step process, following the methods of Orr (2003) and the National Code on Introductions and Transfers of Aquatic Organisms (DFO 2009; Figure 3). First, the probability of introduction was estimated by combining the individual probabilities of successful transition through each stage of the invasion process (e.g., arrival and survival), based on ship arrival data and environmental conditions at Atlantic ports. Second, the potential magnitude of consequences of introduction was estimated based on the number of high impact hull fouling-mediated NIS recorded for eco-regions of ports directly connected to Atlantic ports through ship traffic. Finally, the probability of introduction and potential magnitude of consequences were combined for a final invasion risk rating. To ensure that uncertainty is characterized in a standardized way for each component of the assessment, we assigned levels of uncertainty, ranging from very high to very low, based on the quality of data available for analysis (Table 1). Further, the suitability of the selected

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measure as a proxy for the variable of interest was considered as a component of uncertainty during the peer review meeting.

### **Step 1A: Estimating Probability of Arrival (Hull Fouling)**

A comprehensive database of annual vessel arrivals was assembled for the Atlantic region using the Canadian Coast Guard's Information System on Marine Navigation (INNAV) as the primary data source. Canada requires all commercial vessels to report to the INNAV when entering each Canadian Maritime Communications and Traffic Services Zone, while voluntary reporting typically occurs within each zone for emergency safety reasons. Information reported to the INNAV includes arrival and departure events, and cargo and ballast operations at ports. Vessels were grouped into categories based on operational region during the entire period of the study year: international transoceanic, international coastal U.S., international exempt, coastal domestic, Laker and Atlantic, and were further classified by ship type (merchant or non-merchant)(Table 2). Shipping data was organized by month of arrival, vessel class and operational region in order to quantify vessel arrivals and estimate arrival potential at individual ports associated with different vessel categories. Some Atlantic ports (e.g. Dartmouth, Nova Scotia and Halifax, Nova Scotia) were combined due to reporting differences among data sources and close physical proximity.

We limited our analysis of shipping data to arrivals of vessels >24 meters length (which includes tugs/barges, government, special purpose, pleasure, fishing and research vessels) and  $\geq 8 \text{ m}^3$  of ballast water in a 12-month period because of the large volume of data and time constraints. We used shipping data from 1 January 2006 to 31 December 2006 because data from 2006 were the most recent, complete data available to us when the study was initiated. We note that regulations and reporting were not mandatory until June 2006, however, there do not appear to be marked differences between early and late 2006 since many ships conducted exchange during the voluntary period and Inspectors were educating mariners about the upcoming mandatory requirements.

We used the number of vessel arrivals as a proxy for propagule pressure and colonization pressure (i.e., the number of species) of fouling NIS potentially arriving at ports, and hereafter use the term 'propagule supply' to describe a joint measure of propagule and colonization pressure. We recognize that the number of vessel arrivals is a coarse proxy for propagule supply as the actual number of NIS individuals and species arriving to the recipient environment have not been quantified. Sailing speed, port layover time, anti-fouling management, and voyage history can all affect the propagule supply associated with hull fouling of individual ships (Minchin and Gollasch 2003; Coutts and Taylor 2004; Sylvester and MacIsaac 2010; Sylvester et al. 2011), but due to data limitations these factors could not be incorporated here.

A ranking system was used to convert the number of vessel arrivals into a probability of arrival, where the maximum number of annual arrivals to a single port was divided into five equal categories (Table 3). The choice of five equal categories assumes a positive linear relationship between the two variables, which is consistent with general invasion theory; however, alternative ranking systems could be applied subject to appropriate evaluation and calibration or if stakeholders' risk tolerance levels change. Since shipping data was extensive, but the number of arrivals is a very coarse proxy for the actual propagule supply received by hull fouling, the associated uncertainty is moderate. Due to the large number of ports in the region and limited time and resources available to complete the risk assessment, we prioritized the top three ports in each vessel category, based on the probability of arrival, for further assessment. It was noted during the first peer review that ports ranked below the top three sometimes had values only marginally lower than those ports selected for full assessment; given additional resources in the

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future, analyses of additional ports below the top three (in all vessel categories) may be of interest.

### **Step 1B: Estimating Probability of Survival (Hull Fouling)**

After being released into a new environment, introduced propagules must survive in the recipient environment in order for an invasion to occur. Species-specific risk assessments typically estimate probability of survival by comparing environmental conditions of native and recipient ranges using data-intensive environmental niche models (e.g., Therriault and Herborg 2007; Therriault et al. 2008a, b). Vector-based risk assessments, involving hundreds to thousands of species, each with individual habitat requirements, prohibit the use of such complex models. While coarse comparison of environmental similarity between source and recipient regions is manageable, the case of hull fouling is further complicated by the potentially long history of species accumulation from a variety of ports. Species encrusted on vessels can represent a menagerie of sources, with the most recent port-of-call contributing perhaps only a very small fraction of the total fouling community (Fofonoff et al. 2003; Mineur et al. 2007). Source-recipient port comparisons would require data on all ports visited since the vessel was last cleaned in drydock, as well the mooring duration at each port and application of any fouling management practices. Since our dataset included only information on the last port-of-call, we could only assign probabilities of survival at a very coarse level. While hull fouling is documented as an important vector of NIS to coastal marine habitats, the risk for fouling by transoceanic vessels appears much lower for freshwater habitats (Sylvester and MacIsaac 2010); therefore, recipient ports which are exclusively freshwater (salinity <2 parts per thousand) were assigned the lowest probability of survival while all other ports were categorized as highest probability of survival. For Atlantic vessels, the probability of survival was categorized as highest since these vessels operate exclusively within a single habitat type. This estimate carries a moderate level of uncertainty since salinity can vary both spatially (vertically and horizontally) and temporally with a single port.

### **Step 1C: Calculating Probability of Introduction (Hull Fouling)**

The probabilities of arrival and survival were calculated as separate, independent events for each top port by each ship category. However, because the overall probability of introduction is dependent on the sequential occurrence of arrival and survival, a minimum probability approach was used to determine the overall probability that all stages are passed successfully (Orr 2003; DFO 2009). For example, given a lowest probability of arrival and a highest probability of survival, the overall probability of introduction would be lowest, because high survival probabilities are offset by a very low number of arriving individuals available to survive. Due to the very large number of potential hull-fouling species, we were unable to estimate the probability that a reproductive population of any one NIS could establish at a recipient Atlantic port or become widespread within Canada (but see section 3.5 on ship-mediated secondary spread). Excluding these two stages of invasion from the analysis essentially sets their probabilities at the highest level since the minimum probability approach retains the value of the component with the lowest rating. The minimum probability approach is widely used in qualitative risk assessments (e.g., Canadian Food Inspection Agency Weed Risk Assessment Guidelines, Aquatic Nuisance Species Task Force, and Commission for Environmental Cooperation Risk Assessment Guidelines) and produces risk ratings most consistent with quantitative risk approaches (Koops and Cudmore 2009). In contrast, we retained the highest level of uncertainty for any one stage of invasion as the uncertainty associated with the probability of introduction.

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## **Step 2: Estimating the Magnitude of Consequences (Hull Fouling)**

Predicting potential impacts of NIS involves evaluating the physical-chemical requirements of the NIS and their interactions with native species at recipient sites; a species-specific estimate for potential impact (Colautti and MacIsaac 2004; Lockwood et al. 2006). Again, predicting potential impact for a vector-based risk assessment is complicated by the wide range of possible NIS associated with the vector. Since up-to-date, port-specific lists of native species and established NIS are not available for most ports, we compiled a list of high impact fouling NIS for connected source ports using data from the Nature Conservancy's Marine Invasive Database (Molnar et al. 2008). High-impact NIS are defined as introduced species that disrupt multiple species, ecosystem function, and/or keystone or threatened species. The database includes 81 high impact fouling NIS in 232 coastal ecoregions. We then tabulated the number of high impact fouling NIS recorded for the ecoregion of each source port directly connected to each top Atlantic port, assuming that each connected port may be a donor of all high impact fouling NIS established within the ecoregion; therefore, multiple tally counts are given to a single NIS that could originate from multiple source ports.

A ranking system was used to convert the cumulative number of high impact NIS connected to each top Atlantic port into a magnitude of consequences, where the maximum value was divided into five equal categories (Table 4). Again, the choice of five equal categories assumes a positive linear correlation, consistent with general theory to date, while noting that alternative ranking systems could be applied depending on the circumstances. Because the list of high impact species was available for ecoregions rather than specific ports, does not account for species that may cause high impacts in new recipient regions despite low or negligible impact in source regions, and does not account for high impact species that are native to the source region, the level of uncertainty associated with magnitude of consequences was considered moderate.

## **Step 3: Calculating the Final Invasion Risk (Hull Fouling)**

The probability of introduction (Step 1) and magnitude of consequences (Step 2) of hull fouling-mediated NIS were combined into a final invasion risk for each top port, by each ship category, based on a symmetrical mixed-rounding matrix that reduces the final ratings to three levels (modified from Therriault and Herborg 2007; Table 5). The colouring of this matrix was determined by consensus at the first peer review meeting to be the most balanced approach for assigning levels of risk; however, the matrix can easily be changed to accommodate differing risk tolerance levels of managers and/or stakeholders. The highest level of uncertainty assigned to either probability of introduction or magnitude of consequences was retained as the uncertainty associated with the final invasion risk.

## **ESTIMATING SHIP-MEDIATED SECONDARY SPREAD (HULL FOULING)**

Recognizing that NIS introduced via hull fouling may spread by a variety of natural and anthropogenic vectors other than hull fouling, for which we have no information, secondary spread was not incorporated into the probability of introduction. Further, it was not clear if spread should be included in a vector-based risk assessment as a component of the probability of introduction or the magnitude of consequences, since the extent of secondary spread can influence the magnitude of impact. However, the assembled dataset can be useful to estimate the potential for secondary spread of fouling NIS from top Atlantic ports to other Canadian ports by fouling of domestic ships and could be used to direct hull fouling management activities.

Assuming that each vessel arriving to an Atlantic port would subsequently depart to a next port-of-call, the number of coastal domestic, Laker and Atlantic vessel arrivals at each top port could



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be used as a surrogate measure for the number of coastal domestic, Laker and Atlantic vessel departures from Atlantic top ports.

## **DETERMINING BALLAST-MEDIATED INVASION RISK**

A three step process, similar to that outlined above for hull fouling, was utilized to determine the level of invasion risk posed by ballast water (Figure 4). First, the probability of introduction was estimated by combining the individual probabilities of successful transition through each stage of the invasion process (i.e., arrival and survival), based on ballast water discharge data and environmental similarity between source and recipient ports. Second, the potential magnitude of consequences of introduction was estimated based on the number of high impact ballast-mediated NIS recorded for eco-regions of source ports. Finally, the probability of introduction and potential magnitude of consequences were combined for a final invasion risk rating. To ensure that uncertainty is characterized in a standardized way for each component of the assessment, we assigned levels of uncertainty, ranging from very high to very low, based on the quality of data available for analysis (Table 1). Further, the suitability of the selected measure as a proxy for the variable of interest was considered as a component of uncertainty during the peer review meeting. We recognize that residual sediments in ballast tanks may increase the propagule supply associated with ballast water discharge by commercial vessels (Bailey et al. 2007); however, we did not have adequate data to evaluate this vector for this study.

### **Step 1A: Estimating Probability of Arrival (Ballast Water)**

Ballast water information for all ships operating in the Atlantic Region in 2006 was obtained from the Transport Canada Ballast Water Database (TCBWD) and incorporated into the ship arrivals database described above in Section 3.2, Step 1A. Data self-reported by vessels to Transport Canada provides information on the ballast history for each vessel transit, including ballast tank capacities, ballast uptake and discharge events, and any management activities. All international vessels with a ballast capacity greater than eight m<sup>3</sup> are required to submit ballast water reports prior to the first port of call in Canadian waters (mandatory reporting beginning June 28, 2006). Only merchant vessels, comprising 6,123 transits in Atlantic Canada, were considered for ballast water assessment because other vessel types carry very little or no ballast water and do not consistently report ballast activities to Transport Canada. We cross-referenced ballast water activities reported to Transport Canada with cargo activities reported to INNAV for validation purposes. Cargo and ballast information is typically reported to INNAV in binary format (load or unload; volumes are not reported), and all reports are date and time coded. Some non-merchant vessels, such as cruise ships, ferries and large fishing vessels do carry and exchange >8m<sup>3</sup> ballast water, but could not be included in the ballast water assessment due to inconsistent reporting within our dataset.

Because vessels operating within Canadian waters are not required to report ballast activities to Transport Canada, ballast information for vessels on domestic transit was reconstructed from INNAV data. Following the method of Rup et al. (2010), we assumed that ballast water was discharged when cargo was loaded, resulting in 2,796 transits with ballast water discharge. We found 1,463 incomplete reports to the TCBWD with missing discharge volume and exchange status; we assigned discharge volumes to 677 transits based on information obtained within each report, such as the volume onboard, exchanged volume, and source volume. BWRFs were unavailable for 786 transits; we assigned discharge volumes for 268 discharge events using the historical volumes previously reported by the same vessel on Atlantic or non-Atlantic transits, and for 95 discharge events based on personal communication with vessel operators or crew. We assigned discharge volumes for 423 discharge events based on either the deadweight tonnage of these ships with a correction factor of 0.5 for merchant bulkers, tankers, crude, ore,

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gasoline and chemicals or 0.3 for merchant generals, merchant containers, reefer, dry and roll-on/roll-off vessels based on correlations between cargo weight and ballast water volume (Carlton et al. 1995), or the discharge volume of sister ships in the same vessel class size (see Rup et al. 2010). The last port-of-call was assumed to be the ballast source for all domestic vessel discharges, unless voluntary reports to the TCBWD were available. For ease of summary, the geographic location of ballast water sources was condensed into regions, including the Arctic, North-west Atlantic, North-east Atlantic, Western-central Atlantic, Eastern-central Atlantic, South-east Atlantic, and Mediterranean and Black Sea, as described by the Food and Agriculture Organization (FAO 2009; Figure 5) and as used in past ballast water studies (e.g., Amoako-Atta and Hicks 2004; Simard and Hardy 2004; Claudi and Ravishankar 2006).

The volume of foreign ballast water discharged by international vessels was corrected to account for reduction in propagule supply due to mandatory management activities. This correction was also applied to ballast water discharged by coastal domestic vessels that reported conducting voluntary ballast water exchange to Transport Canada. Ballast water exchange can reduce propagule supply by flushing out most entrained organisms and killing those that remain *via* osmotic stress associated with rapid salinity change (Wonham et al. 2001; Ruiz and Smith 2005). However, some viable NIS propagules entrained at the source port may remain viable in tanks despite full compliance by ships (Levings and Foreman 2004; Ruiz and Smith 2005; Simard et al. 2011). A correction factor of 0.1 for ships with ballast water from saline ports, or 0.01 for freshwater ports, was applied to the reported volumes of exchanged ballast water to estimate propagule supply. These values were derived from ballast water exchange efficacy rates, as determined by total zooplankton abundance, reported for saline water (90%) and freshwater (99%) ports, respectively (Ruiz and Smith 2005; Gray et al. 2007). Ballast water discharged by international, international exempt, coastal domestic, Laker, and Atlantic merchant vessels was evaluated separately because vessels in different operational regions will likely carry different species assemblages with different characteristics and requirements affecting invasion risk. The volume of ballast water discharged at each port in the database is the single-year data from TCBWD-INNAV.

We used the corrected volume of ballast water discharged as a proxy for the propagule supply of NIS potentially arriving at ports by ballast water. Ballast volume acts like a scaling coefficient, where large volumes are more likely to transport greater propagule pressure, but they can transport low propagule pressure. While propagule pressure associated with the ballast water of any single vessel is expected to be more directly related to physico-chemical and/or geographic-seasonal factors like water salinity, age of ballast water and management practices than total volume (Aguirre-Macedo et al. 2008; Burkholder et al. 2007; McCollin et al. 2008; Villac and Kaczmarska 2011), the available dataset did not include these data. While imperfect, the use of volume is consistent with previous studies (Drake and Lodge 2004; Herborg et al. 2007; Simkanin et al. 2009).

A ranking system was used to convert the volume of ballast water discharged into a probability of arrival, where the maximum mean annual corrected volume of ballast water discharged at a single Atlantic port was divided into five equal categories (Table 6). The choice of five equal categories assumes a positive linear relationship between the two variables, which is consistent with general invasion theory, while noting that alternative ranking systems could be applied depending on the circumstances. Recognizing that the volume of ballast water discharged is a robust but not a direct measurement of the propagule supply within the water, the associated uncertainty level was set as low. Due to the large number of ports in the region and limited time and resources available to complete the risk assessment, we prioritized the top three ports in each vessel category, based on the probability of arrival, for full assessment. It was noted

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during the first peer review that ports ranked below the top three sometimes had values only marginally lower than those ports selected for full assessment; given additional resources in the future, analyses of additional ports below the top three (in all vessel categories) may be of interest.

### **Step 1B: Estimating Probability of Survival (Ballast Water)**

Following the reasoning outlined above for hull fouling (Section 3.2, Step 1B), we conduct a comparison of the environmental similarity between source and recipient ports of ballast water to estimate the probability of survival. Environmental similarity analysis between NIS source and recipient ports is common in ballast water risk assessments (e.g., Hilliard et al. 1997; Gollasch and Leppäkoski 1999; Hayes and Hewitt 2001; Herborg et al. 2007; Keller et al. 2010). The main advantage of this approach is that it rapidly assesses the likelihood of NIS survival post-arrival based on the environmental conditions of the source and recipient sites (Barry et al. 2008). All ports directly connected to each top Atlantic port as a source of ballast water were noted, allowing identification of source-recipient port-pairs. Following methodology of Keller et al. (2010) we selected four parameters to estimate environmental similarity between port-pairs, including annual average water temperature, mean water temperature during the warmest month, mean water temperature during the coldest month and annual average salinity. We recognize that additional variables such as pH, dissolved oxygen, day length, ice cover, etc. can influence species survival potential at the recipient environment. However, we focused our analysis on temperature and salinity because they are fundamental physical factors for survival and reproduction of all aquatic organisms (Kinne 1963; Anger 1991; Browne and Wanigasekera 2000; Verween et al. 2007). In addition, including variables that are not related to invasion risk for some or all potential NIS can dramatically decrease the sensitivity of the environmental similarity measure (Barry et al. 2008).

Following Keller et al. (2010), environmental similarity between top ports and global ports was calculated using Euclidean distance in four-dimensional space. Euclidean distance was used because it is a simple method to measure linear distance and is commonly used to measure environmental similarity between two locations (Barry et al. 2008). Sensitivity analysis revealed that salinity was the most influential variable in this calculation, and thus had approximately equal overall weight in the outcome as the three temperature parameters (Keller et al. 2010). We obtained data for the four environmental parameters for 6,651 global ports from Keller et al. (2010). In addition, we interpolated data for these four environmental parameters in ArcGIS 10 (ESRI Inc.) for 56 Arctic ports not included in Keller et al. (2010) using data from the World Ocean Atlas (Antonov et al. 2006; Locarnini et al. 2006). All environmental values were standardized using a z-transformation so that each variable had equal weight in the calculation. Euclidean (Environmental) distance values between each top port and all connected source ports were averaged to obtain a final rating for survival potential.

A ranking system was used to convert the average Euclidean distance value for each port into a probability of survival, where the maximum value for any single source-recipient port-pair (of all possible global port-pairs, not just those that were identified as connected in this dataset) was divided into five equal categories (Table 7). Again, the choice of five equal categories assumes a positive linear correlation, consistent with general theory to date, while noting that alternative ranking systems could be applied depending on the circumstances. This estimate carries a low level of uncertainty, although it is recognized that spatial (vertical and horizontal) and temporal variability in salinity at a single port are likely not well represented by the annual average salinity. Further, we recognized that biological interactions may also enhance or impede NIS survival at the recipient port (Colautti and MacIsaac 2004) but we were unable to assess these

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interactions due to the large number of species potentially associated with the ballast water vector.

### **Step 1C: Calculating Probability of Introduction (Ballast Water)**

As described above for hull fouling, probabilities of arrival and survival were combined into a probability of introduction at each top port, for each ship category, using the minimum probability method, while retaining the highest level of uncertainty. Probabilities of establishment and spread were not included in this risk assessment, but information about potential for ship-mediated secondary spread is provided below.

In addition, to provide information about potentially important source ports of ballast-mediated NIS, we overlaid propagule supply and environmental similarity measures between all connecting port-pairs using ArcGIS 10. Port-pairs in the upper two categories for both components were considered most likely sources of NIS due to sufficient propagule supply and environmental matching (Orr 2003).

### **Step 2: Estimating the Magnitude of Consequences (Ballast Water)**

Similar to the methodology described above for hull fouling, we compiled a list of high impact ballast-mediated NIS for connected source ports using the Nature Conservancy's Marine Invasive Database (Molnar et al. 2008). The database includes a total of 90 high impact ballast-mediated NIS in 232 ecoregions. We first tabulated the number of high impact ballast-mediated NIS recorded for the ecoregion of each source port directly connected to each top Atlantic port, assuming that each connected port may be a donor of all high impact ballast-mediated NIS established within the ecoregion; therefore, multiple tally counts are given to a single NIS that could originate from multiple source ports.

A ranking system was used to convert the cumulative number of high impact NIS connected to each top Atlantic port into a magnitude of consequences, where the maximum value was divided into five equal categories (Table 8). Again, the choice of five equal categories assumes a positive linear correlation, consistent with general theory to date, while noting that alternative ranking systems could be applied depending on the circumstances. Since the list of high impact species was available for ecoregions rather than specific ports, does not account for species that may cause high impacts in new recipient regions despite low or negligible impact in source regions, and does not account for high impact species that are native to the source region, the level of uncertainty associated with magnitude of consequences was considered moderate.

### **Step 3: Calculating Final Invasion Risk (Ballast Water)**

The probability of introduction (Step 1) and magnitude of consequences (Step 2) of ballast-mediated NIS were combined into a final invasion risk for each top port, for each ship category, based on a symmetrical mixed-rounding matrix, as described above for hull fouling (Table 5). The highest level of uncertainty assigned to either probability of introduction or magnitude of consequences was retained as the uncertainty associated with the final invasion risk.

### **ESTIMATING SHIP-MEDIATED SECONDARY SPREAD (BALLAST WATER)**

As described above for hull fouling (Section 3.3), the assembled dataset provided opportunity to estimate the potential for secondary spread of ballast-mediated NIS from top Atlantic ports to other Canadian ports by domestic ships, but was not considered comprehensive enough to include as a probability of spread in the risk assessment. We were unable to estimate the volume of ballast water being transferred among ports since coastal domestic, Laker and Atlantic vessels are not required to submit ballast water report forms, and we could not

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reasonably assign a given volume of ballast loaded per ship due to the multi-port, variable cargo activities of domestic vessels in the Atlantic. Instead, we assessed only the number of ballast water uptake events, assuming that all vessels that discharged cargo subsequently loaded ballast water before departing for the next domestic port-of-call. Essentially, the number of ballast water uptakes at each top Atlantic port was calculated by subtracting the number of ballast water discharge events from the number of arrivals, for all coastal domestic, Laker and Atlantic vessels.

## **RESULTS AND DISCUSSION**

### **VESSEL ARRIVALS IN THE ATLANTIC REGION**

A total of 6,123 distinct merchant vessel and 22,313 non-merchant vessel arrivals were recorded during the 12-month period at 251 Atlantic ports. International transoceanic merchant vessels contributed the greatest number of merchant arrivals ( $n = 3,530$ ), followed by coastal domestic merchant vessels ( $n = 1,076$ ), international exempt merchant vessels ( $n=553$ ), international coastal U.S. merchant vessels ( $n=446$ ), Atlantic merchant ( $n=307$ ) and Laker merchant vessels ( $n = 211$ ). Non-merchant vessel arrivals were largely conducted between Atlantic ports ( $n=16,254$ ). Vessel arrivals were evenly distributed in the region, however fewer arrivals were noted along the coast of Labrador (Figure 6).

#### **Probability of Arrival (Hull Fouling)**

##### International Transoceanic Merchant Vessels

We identified 3,530 distinct international transoceanic merchant vessel arrivals at 73 Atlantic ports during the study period. Dartmouth-Halifax (Nova Scotia), Canso-Mulgrave-Point Tupper (Nova Scotia) and Saint John (New Brunswick) were the top three ports receiving the greatest number of international transoceanic merchant vessel arrivals. With the exception of Dartmouth-Halifax, which has highest probability for arrival of hull-mediated NIS, all international transoceanic merchant vessels have lower or lowest probability of arrival for hull-mediated NIS (Table 9). Top port locations are shown in Figure 7.

International transoceanic merchant vessels operate within a global network, providing opportunity for introduction of a wide variety of NIS (Kaluza et al. 2010; Keller et al. 2010). Transoceanic voyages, however, generally expose fouling organisms to long voyages, high travelling speeds and large variation in temperature and salinity, which may decrease survival and subsequent invasion risk (Coutts et al. 2003; Coutts and Taylor 2004). There are, however, fouling organisms (e.g., bryozoans and isopods) capable of tolerating a wide range of salinities (0 – 37 ppt) and temperatures (9.9 – 31.6 °C; Davidson et al. 2008), thus the potential for successful hull-mediated NIS introductions across regions cannot be disregarded completely (Lewis et al. 2006).

##### International Coastal U.S. Merchant Vessels

We identified 446 distinct international coastal U.S. merchant vessel arrivals at 32 Atlantic ports during the study period. Canso-Mulgrave-Point Tupper (Nova Scotia), Come By Chance-Whiffen head (Newfoundland), and Dartmouth-Halifax (Nova Scotia) were the top three ports receiving the greatest number of international coastal U.S. merchant vessel arrivals. All international coastal U.S. merchant vessels have lowest probability of arrival for hull-mediated NIS (Table 10). Top port locations are shown in Figure 7.

Coastal vessels typically have shorter voyage times and travel within more similar latitudes than do international vessels and therefore are more likely to transport viable fouling organisms to

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Atlantic ports (Simkanin et al. 2009, Lawrence and Cordell 2010). Coastal U.S. vessels, however, may play a more prominent role in the spread of native nuisance species and/or established NIS, rather than the introduction of new NIS from foreign sources, since the geographic extent of potential source ports is much smaller than for international transoceanic vessels.

#### International Exempt Merchant Vessels

We identified 553 distinct international exempt merchant vessel arrivals at 20 Atlantic ports during the study period. Saint John, Come By Chance-Whiffen Head (Newfoundland), and Dartmouth-Halifax were the top three ports receiving the greatest number of international exempt merchant vessel arrivals. All international exempt merchant vessels have lower or lowest probability of arrival for hull-mediated NIS (Table 11). Locations of top ports are shown in Figure 7.

International exempt merchant vessels operate exclusively within Canada and Northeastern United States, providing opportunity for northward introduction of NIS. Environmental conditions within the exemption zone are likely more similar than more distant ports, so any biota transported by fouled vessels are expected to have a high probability of survival in the new recipient port. While the exemption zone has historically been considered a single biogeographic region with common species across ports, there are now established NIS which could be spread from high traffic U.S. ports within the exemption zone to Canadian Atlantic ports.

#### Coastal Domestic Merchant Vessels

We identified 1,076 distinct coastal domestic merchant vessel arrivals at 79 Atlantic ports during the study period. Sept-Îles (Québec), Dartmouth-Halifax, and St. John's (Newfoundland) were the top three ports receiving the greatest number of coastal domestic merchant vessel arrivals (Table 12), however all Atlantic ports had the lowest probability for arrival of hull-mediated NIS. Locations of top ports are shown in Figure 7.

Coastal domestic merchant vessels typically have shorter voyage times and travel within similar latitudes compared to international transoceanic merchant vessels and therefore are more likely to transport viable fouling organisms to Atlantic ports. However, coastal domestic vessels likely play a more prominent role in the spread of native nuisance species and/or established NIS, rather than the introduction of new NIS from foreign sources due to the short distance between ports. Yet coastal domestic vessels in the Atlantic region may be arriving from marine or freshwater ports of origin and therefore transit history will determine the likelihood of spread of NIS.

#### Laker Merchant Vessels

A total of 211 distinct Laker vessel arrivals were reported at 3 Atlantic ports during the study period. Port-Cartier (Québec), Sept-Îles, and Baie-Comeau (Québec) were the only ports in the Atlantic region to receive Laker vessels, and all had the lowest probability for arrival of hull-mediated NIS (Table 13). Locations of top ports are shown in Figure 7.

As above, Laker vessels typically have shorter voyage times and travel within similar latitudes compared to international transoceanic merchant vessels, which can increase fouling risk (Coutts and Taylor 2004); however, the transition from freshwater to saltwater may be an effective barrier for this group of vessels. Given the region of operation, Lakers likely contribute only to the spread of native nuisance species and established NIS (Carlton and Hodder 1995; Lavoie et al. 1999).

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### Atlantic Merchant Vessels

A total of 307 distinct Atlantic merchant vessel arrivals were reported at 17 Atlantic ports during the study period. Dartmouth-Halifax, St. John's, and Saint-Pierre et Miquelon (SPM) were the top three ports receiving the greatest number of Atlantic merchant vessel arrivals (Table 14). All Atlantic ports had the lowest probability for arrivals of hull-mediated NIS. Locations of top ports are shown in Figure 7.

Viable fouling organisms are more likely to be transported to Atlantic ports by Atlantic merchant vessels compared to international, coastal domestic and Laker vessels because these vessels generally travel shorter distances within similar latitudes and therefore expose fouling organisms to less variation in temperature and salinity (Coutts and Taylor 2004). Given the region of operation, Atlantic merchant vessels would be expected to contribute only to the spread of native nuisance species and established NIS (Carlton and Hodder 1995; Lavoie et al. 1999).

### International Non-Merchant Vessel Arrivals

We identified 1,286 distinct international non-merchant vessel arrivals at 114 Atlantic ports during the study period. Yarmouth (Nova Scotia), Dartmouth-Halifax (Nova Scotia), and St. John's (Newfoundland) were the top three ports receiving the greatest number of international non-merchant vessel arrivals. All international non-merchant vessels have the lowest probability of arrival for hull-mediated NIS (Table 15). Locations of top ports are shown in Figure 8.

Similar to international transoceanic merchant vessels, international non-merchant vessels are connected to a variety of foreign ports, which may provide opportunity for introduction of a variety of foreign NIS. Some non-merchant vessel types, such as fishing vessels, passenger ships and yachts, can have long port layover time and/or low travelling speed, factors that enhance fouling on hulls (Minchin and Gollasch 2003; Sylvester and MacIsaac 2010). As a result, non-merchant vessels can exhibit a higher abundance of fouling on hulls compared to merchant vessels (Minchin and Gollasch 2003; Coutts and Taylor 2004; Farrapeira et al. 2007)

### Coastal Domestic Non-Merchant Arrivals

A total of 4,773 distinct coastal domestic non-merchant vessel arrivals were reported at 131 Atlantic ports during the study period. Saint-Siméon (Québec), Rivière-du-Loup (Québec), and Isle-aux-Grues (Québec) were the top three ports receiving the greatest number of coastal domestic non-merchant vessel arrivals in the Atlantic region. The top ports of Saint-Siméon and Rivière-du-Loup have highest probability for arrival of hull-mediated NIS. Isle-aux-Grues and Montmagny (Québec) have higher probability for arrival of hull-mediated NIS. All other Atlantic ports receiving coastal domestic non-merchant vessels have intermediate to lowest probability of arrival of hull-mediated NIS (Table 16). Locations of top ports are shown in Figure 8.

As above, the non-merchant nature of this vessel category may correlate with higher abundance of fouling on hulls; however, being coastal domestic, these ships are more likely to spread native nuisance species and/or established NIS from other Canadian ports, rather than introduce new foreign NIS.

### Atlantic Non-Merchant Arrivals

A total of 16,254 distinct Atlantic non-merchant vessel arrivals were reported at 202 Atlantic ports. The top three ports receiving Atlantic non-merchant vessels in the Atlantic region are Blacks Harbour (New Brunswick), North Head (New Brunswick), and Matane (Québec), all having highest probability for arrival of hull-mediated NIS. Arrival probabilities for the remaining Atlantic ports ranged from highest to intermediate (Table 17). Locations of top ports are shown in Figure 8.

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Viable fouling organisms are more likely to be transported to Atlantic ports by Atlantic non-merchant vessels compared to international and coastal domestic non-merchant vessels because Atlantic non-merchant vessels generally travel shorter distances within similar latitudes and therefore expose fouling organisms to less variation in temperature and salinity (Coutts and Taylor 2004). As well, the non-merchant nature of this vessel category may lead to longer port layover times and/or low travelling speeds, which may correlate with higher abundance of fouling on hulls (Minchin and Gollasch 2003; Sylvester and MacIsaac 2010). However, given the region of operation, Atlantic non-merchant vessels likely contribute only to the spread of native nuisance species and established NIS (Carlton and Hodder 1995; Lavoie et al. 1999).

### **Probability of Survival (Hull Fouling)**

All of the top ports considered in this risk assessment have annual average salinities >2 parts per thousand and are considered brackish or marine ports. Therefore most Atlantic ports had highest probability for survival of NIS *via* hull-fouling (Table 18). The exception are the Atlantic ports visited by Laker vessels, as transit routes for these ships are between freshwater ports of the Great Lakes and brackish Atlantic ports, thereby decreasing probability of survival. P(Survival) of hull fouling NIS for Laker vessels is therefore rated as lowest.

### **Probability of Introduction (Hull Fouling)**

Dartmouth-Halifax had the highest probability for introduction of hull fouling-mediated NIS *via* international transoceanic merchant vessels, while all top ports for non-merchant vessels had higher or highest probability for introduction of hull fouling-mediated NIS (Table 18). Probability of introduction for the remaining top ports ranged from lower to lowest, thus hull fouling-mediated NIS introduction is less likely at these ports.

### **Magnitude of Consequences (Hull Fouling)**

The cumulative number of high impact fouling NIS at each top port by vessel category ranged from 4 to 1,048 representing 68 distinct NIS (Table 19; Appendix K). Dartmouth-Halifax was rated highest for magnitude of potential consequences of NIS *via* international transoceanic merchant vessels, with a cumulative number of 1,048 high impact fouling NIS representing 67 distinct NIS. Canso-Mulgrave-Point Tupper was rated higher for magnitude of potential consequences *via* international transoceanic merchant vessels, with a cumulative number of 814 high impact fouling NIS representing 65 distinct NIS. The remaining Atlantic top ports were rated lowest to intermediate for magnitude of potential consequences of fouling NIS. It is noted that some of the high impact species identified in Appendix K, such as *Styela clava*, have already established in the Atlantic region with hull fouling being the most probable transport vector.

### **Final Invasion Risk (Hull Fouling)**

The final relative invasion risk for nonindigenous species *via* hull fouling was higher for Dartmouth-Halifax (Nova Scotia) *via* international transoceanic merchant vessels, and final relative invasion risk was intermediate for Canso-Mulgrave – Point Tupper (Nova Scotia), Saint John (New Brunswick), Blacks Harbour (New Brunswick), North Head (New Brunswick), Saint-Siméon (Québec), Rivière-du-Loup (Québec) and Isle-aux-Grues (Québec), Matane (Québec), and lower for all remaining top Atlantic ports (Table 20).



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## SECONDARY SPREAD BY HULL FOULING

Blacks Harbour has the highest potential to act as a source for hull fouling-mediated spread of NIS within Canada (Appendix N). Blacks Harbour is a top port for Atlantic non-merchant arrivals. North Head and Matane are also top ports for Atlantic non-merchant arrivals and have higher potential for hull fouling-mediated NIS spread. Fouling NIS introduced to these ports have the greatest probability of spreading to other Canadian ports by domestic transport pathways. As a result, these top ports may serve as hubs for stepping stone invasions if fouling NIS successfully establish at these sites. The potential for spread from the remaining top ports ranged from lowest to intermediate and therefore may play a less prominent role in the spread of fouling NIS within Canada.

## BALLAST WATER DISCHARGES IN THE ATLANTIC REGION

During the study period, merchant vessels conducted 2,796 ballast water discharges, releasing approximately 42,486,855 m<sup>3</sup> of ballast water at 56 Atlantic ports. After correcting for the reduction in propagule supply as a result of ballast water exchange (see ballast water methods, Step 1A for details), the volume discharged was 23,653,096 m<sup>3</sup> (Table 21). Ballast water discharges are fairly evenly distributed throughout the Atlantic region, however approximately 70% of discharge events occur in Nova Scotia, Newfoundland, and the Estuary/Gulf of St. Lawrence (Figure 9).

Approximately 54% of the ballast water discharged in the Atlantic region originated from the NW Atlantic, primarily from Canadian and U.S. coastal ports, with an additional 25% originating from the Great Lakes. The remaining ballast water (21%) originated from unknown or foreign source ports in various FAO regions (Table 22). Approximately 75% and 82.5% of coastal U.S. and international ballast water was exchanged during the voluntary and mandatory management periods, respectively (Table 23); however, there were 196 transits by international vessels with missing or incomplete BWRFs, for which compliance cannot be assessed. International vessels also moved domestic ballast between Canadian ports on secondary transits; approximately 5% of domestic ballast water was exchanged even though there was no requirement to do so. The number of international exempt vessels conducting BWE increased from 12% to 40% with the transition to mandatory requirements, indicating that there may be confusion as to when BWE is required, and that it is possible to conduct BWE on at least some transits within the exemption zone.

### Probability of Arrival (Ballast Water)

#### International Transoceanic Merchant Vessels

During the study period, international transoceanic merchant vessels discharged a total of 23,261,378 m<sup>3</sup> of ballast water at 42 Atlantic ports. The total discharged volume included 10,372,002 m<sup>3</sup> of direct water and 12,889,376 m<sup>3</sup> of exchanged water to which a correction factor was applied to account for the reduced propagule supply due to mid-ocean exchange. Sept-Îles (Québec), Port-Cartier (Québec), and Come By Chance-Whiffen Head (Newfoundland) were the top three Atlantic ports receiving the greatest combined volume of direct and exchanged (with correction factor applied) ballast water discharged by international transoceanic merchant vessels (Table 24). The probability of arrival of ballast-mediated NIS *via* international transoceanic merchant vessels was higher for Sept-Îles and intermediate for Port-Cartier and Come By Chance-Whiffen Head. All remaining Atlantic ports had lower or lowest probability of arrival of ballast mediated NIS *via* international transoceanic vessels. Port locations are shown in Figure 10.

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Ballast water from international source ports must now be exchanged or flushed on the open ocean, which dramatically reduces potential propagule supply to Canadian ports (Bailey et al. 2011). Therefore, ballast water discharged by international transoceanic merchant vessels may play less of a role in the introduction of NIS from foreign sources.

#### International Coastal U.S. Merchant Vessels

International coastal U.S. vessels discharged a total of 7,662,828 m<sup>3</sup> of ballast water at 23 Atlantic ports. Approximately 75% of ballast water discharged by this vessel type was managed by BWE and/or tank flushing, as the total discharged volume included 1,508,234 m<sup>3</sup> of direct water and 6,154,594 m<sup>3</sup> of exchanged water to which a correction factor was applied. Canso-Mulgrave-Point Tupper (Nova Scotia), Come By Chance-Whiffen Head, and Dartmouth-Halifax (Nova Scotia) were the top three Atlantic ports receiving the greatest combined volume of direct and corrected exchanged ballast water discharged by international coastal U.S. merchant vessels (Table 25). The probability of arrival of ballast-mediated NIS *via* international coastal U.S. merchant vessels was lower for the top port of Canso-Mulgrave-Point Tupper, and was lowest for all remaining Atlantic ports. Port locations are shown in Figure 10.

Ballast water discharged by coastal vessels may have a higher propagule supply compared to international vessels due to the inverse relationship between duration of voyage and propagule survival – plankton are more likely to survive the environmental conditions and resist predation and competition inside a ballast tank over a shorter period of time (Lavoie et al. 1999; Verling et al. 2005; Simkanin et al. 2009). However, coastal U.S. vessels may play a more prominent role in the spread of native nuisance species and/or established NIS, rather than the introduction of new NIS from foreign sources, since the geographic extent of potential source ports is much smaller than for international transoceanic vessels.

#### International Exempt Merchant Vessels

During the same period, international exempt merchant vessels discharged a total of 5,652,994 m<sup>3</sup> of ballast water at 12 Atlantic ports. Most ballast water was discharged directly, as the total discharged volume included 4,896,231 m<sup>3</sup> of direct water and 756,763 m<sup>3</sup> of exchanged water, to which a correction factor was applied to account for propagule supply reduction. Saint John, Come By Chance-Whiffen Head, and Conception Bay (Newfoundland) were the top three Atlantic ports receiving the greatest combined volume of direct and corrected exchanged ballast water discharged by international exempt merchant vessels (Table 26). Saint John had highest probability of arrival of ballast mediated NIS *via* international exempt merchant vessels for Atlantic ports, while Come By Chance-Whiffen Head and Conception Bay had lower probability of arrival of ballast-mediated NIS *via* international exempt merchant vessels. Port locations for top ports are shown in Figure 10.

Similar to coastal vessels, international exempt vessels typically have shorter voyage times compared to international vessels and therefore are more likely to discharge viable organisms in ballast water (Simkanin et al. 2009, Lawrence and Cordell 2010). Environmental gradients within the exemption zone do not vary widely, so any discharged biota are expected to have a high probability of survival in the new recipient port. While the exemption zone has historically been considered a single biogeographic region with common species across ports, concern has been raised over the potential for secondary spread of established NIS from high traffic U.S. ports within the exemption zone (Pederson 2004). Caution should be taken when applying generalized environmental similarities to complex coastal “common waters”.

#### Coastal Domestic Merchant Vessels

Coastal domestic merchant vessels discharged a total of 4,320,302 m<sup>3</sup> of ballast water at 29 Atlantic ports. Nearly all ballast water moved by coastal domestic merchant vessels was

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discharged directly, although mandatory ballast water exchange of 501,248 m<sup>3</sup> was undertaken for all ships discharging at Grande Entrée, and voluntary ballast water exchange was reported for 1,801 m<sup>3</sup>. Sept-Îles, Havre-Saint-Pierre (Québec) and Port-Cartier were the top three Atlantic ports receiving the greatest combined volume of ballast water discharged by coastal domestic vessels (Table 27). The probability of arrival of ballast-mediated NIS *via* coastal domestic merchant vessel discharges was lower or lowest for all top Atlantic ports. Port locations are shown in Figure 10.

Ballast water discharged by coastal domestic vessels may have a higher propagule supply compared to international vessels due to the inverse relationship between duration of voyage and propagule survival – plankton are more likely to survive the environmental conditions and resist predation and competition inside a ballast tank over a shorter period of time (Lavoie et al. 1999; Verling et al. 2005; Simkanin et al. 2009). However, coastal domestic vessels likely play a more prominent role in the spread of native nuisance species and/or established NIS, rather than the introduction of new NIS from foreign sources (Carlton and Hodder 1995; Lavoie et al. 1999).

#### Laker Merchant Vessels

During the study period, Laker merchant vessels discharged a total of 1,559,623 m<sup>3</sup> of ballast water at 3 Atlantic ports. All ballast water moved by Laker merchant vessels was discharged directly, due to exemption from ballast water management regulations. In order of total volume of ballast water discharge, Sept-Îles, Port-Cartier, and Baie-Comeau (Québec) were the only three Atlantic ports receiving ballast water discharge from Laker merchant vessels. Sept-Îles had lower probability for ballast-mediated NIS arrival *via* Laker merchant vessel discharges, while probability of arrival of ballast mediated NIS at Port-Cartier and Baie-Comeau was lowest (Table 28). Port locations are shown in Figure 10.

Ballast water discharged by Laker vessels may have a higher propagule supply compared to international vessels due to the inverse relationship between duration of voyage and propagule survival – plankton are more likely to survive the environmental conditions and resist predation and competition inside a ballast tank over a shorter period of time (Lavoie et al. 1999; Verling et al. 2005; Simkanin et al. 2009). However, Laker merchant vessels likely play a more prominent role in the spread of native nuisance species and/or established NIS, rather than the introduction of new NIS from foreign sources (Carlton and Hodder 1995; Lavoie et al. 1999).

#### Atlantic Merchant Vessels

Atlantic merchant vessels discharged a total of 70,425 m<sup>3</sup> ballast water at 5 Atlantic ports. All ballast water moved by Atlantic merchant vessels was discharged directly as Atlantic vessels are exempt from ballast management regulations and do not transit offshore to a suitable location where exchange can be conducted. Port-Cartier, Lewisporte (Newfoundland), Dartmouth-Halifax, and St. John's (Newfoundland) were the top ports receiving the greatest total volume of direct ballast water from Atlantic merchant vessels (Table 29). All Atlantic ports had lowest probability for ballast-mediated NIS arrival *via* Atlantic merchant vessel discharges. Port locations are shown in Figure 10.

Ballast water discharged by Atlantic vessels may have a higher propagule supply compared to international vessels due to the inverse relationship between duration of voyage and propagule survival – plankton are more likely to survive the environmental conditions and resist predation and competition inside a ballast tank over a shorter period of time (Lavoie et al. 1999; Verling et al. 2005; Simkanin et al. 2009). However, Atlantic merchant vessels likely play a more prominent role in the spread of native nuisance species and/or established NIS, rather than the introduction of new NIS from foreign sources (Carlton and Hodder 1995; Lavoie et al. 1999).

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## Probability of Survival (Ballast Water)

### International Transoceanic Merchant Vessels

Forty-two foreign, 8 domestic GLSLR, and 9 Atlantic ballast water source ports were identified and evaluated for environmental similarity with Sept-Îles (Table 30). The overall probability of survival at Sept-Îles was higher, with 42 source ports having higher or highest environmental similarity to Sept-Îles. However, all connected ports with higher or highest environmental similarity with Sept-Îles also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Sept-Îles (Figure 11). A list of global ports with highest environmental similarity to Sept-Îles is provided in Appendix A; NIS originating from these ports would have the highest probability for survival if introduced to Sept-Îles.

Twenty-five foreign, 2 domestic GLSLR and 8 Atlantic ballast water source ports were identified and evaluated for environmental similarity with Come By Chance-Whiffen Head (Table 31). The overall probability of survival at Come By Chance-Whiffen Head was higher, with 24 source ports having higher or highest environmental similarity to Come By Chance-Whiffen Head. However, all connected ports with higher or highest environmental similarity to Come By Chance-Whiffen Head also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Come By Chance-Whiffen Head (Figure 12). A list of global ports with highest environmental similarity to Come By Chance-Whiffen Head is provided in Appendix B; NIS originating from these ports would have the highest probability for survival if introduced to Come By Chance-Whiffen Head.

Thirty-seven foreign, 10 domestic GLSLR and 7 Atlantic ballast water source ports were identified and evaluated for environmental similarity with Port-Cartier (Table 32). The overall probability of survival at Port-Cartier was intermediate, with 43 source ports having higher or highest environmental similarity to Port-Cartier. However, all connected ports with higher or highest environmental similarity with Port-Cartier also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Port-Cartier (Figure 13). A list of global ports with highest environmental similarity to Port-Cartier is provided in Appendix C; NIS originating from these ports would have the highest probability for survival if introduced to Port-Cartier.

### International Coastal U.S. Merchant Vessels

Nine coastal U.S. and one Atlantic ballast water source ports were identified and evaluated for environmental similarity with Canso-Mulgrave-Point Tupper (Table 33). The overall probability of survival at Canso-Mulgrave-Point Tupper was higher, with 8 source ports having higher or highest environmental similarity to Canso-Mulgrave-Point Tupper. However, all connected ports with higher or highest environmental similarity with Canso-Mulgrave-Point Tupper also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Canso-Mulgrave-Point Tupper (Figure 16). A list of global ports with highest environmental similarity to Canso-Mulgrave-Point Tupper is provided in Appendix D; NIS originating from these ports would have the highest probability for survival if introduced to Canso-Mulgrave-Point Tupper.

Sixteen coastal U.S. ballast water source ports were identified and evaluated for environmental similarity with Come By Chance-Whiffen Head (Table 34). The overall probability of survival at Come By Chance-Whiffen Head was higher, with 7 source ports having higher or highest environmental similarity to Come By Chance-Whiffen Head. However, all connected ports with higher or highest environmental similarity with Come By Chance-Whiffen Head also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Come By Chance-Whiffen Head (Figure 14). A list of global ports with highest environmental

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similarity to Come By Chance-Whiffen Head is provided in Appendix B; NIS originating from these ports would have the highest probability for survival if introduced to Sept-Îles.

Nine coastal U.S., two domestic GLSLR, and one Atlantic ballast water source ports were identified and evaluated for environmental similarity with Dartmouth-Halifax (Table 35). The overall probability of survival at Dartmouth-Halifax was higher, with 9 source ports having higher or highest environmental similarity to Dartmouth-Halifax. However, all connected ports with higher or highest environmental similarity to Dartmouth-Halifax also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Dartmouth-Halifax (Figure 15). A list of global ports with highest environmental similarity to Dartmouth-Halifax is provided in Appendix E; NIS originating from these ports would have the highest probability for survival if introduced to Dartmouth-Halifax.

#### International Exempt Merchant Vessels

Twenty-one foreign and 6 Atlantic ballast water source ports were identified and evaluated for environmental similarity with Saint John (Table 36). The overall probability of survival at Saint John was higher, with 19 source ports having higher or highest environmental similarity to Saint John. Boston (Massachusetts) was identified as a potential source of ballast-mediated NIS to Saint John having both relatively high propagule supply and environmental similarity. The remaining connected ports with higher or highest environmental similarity with Saint John had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Saint John (Figure 17). A list of global ports with highest environmental similarity to Saint John is provided in Appendix F; NIS originating from these ports would have the highest probability for survival if introduced to Saint John.

Six foreign and 6 Atlantic ballast water source ports were identified and evaluated for environmental similarity with Come By Chance-Whiffen Head (Table 37). The overall probability of survival at Come By Chance-Whiffen Head was higher, with 10 source ports having higher or highest environmental similarity to Come By Chance-Whiffen Head. However, all connected ports with higher or highest environmental similarity to Come By Chance-Whiffen Head also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Come By Chance-Whiffen Head (Figure 18). A list of global ports with highest environmental similarity to Come By Chance-Whiffen Head is provided in Appendix B; NIS originating from these ports would have the highest probability for survival if introduced to Come By Chance-Whiffen Head.

Four foreign and 3 Atlantic ballast water source ports were identified and evaluated for environmental similarity with Conception Bay Harbour (Table 38). The overall probability of survival at Conception Bay Harbour was higher, with 3 source ports having higher or highest environmental similarity to Conception Bay Harbour. However, all connected ports with higher or highest environmental similarity with Conception Bay Harbour also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Conception Bay Harbour (Figure 19). A list of global ports with highest environmental similarity to Conception Bay Harbour is provided in Appendix G; NIS originating from these ports would have the highest probability for survival if introduced to Conception Bay Harbour.

#### Coastal Domestic Merchant Vessels

Thirteen domestic GLSLR and 7 Atlantic ballast water source ports were identified and evaluated for environmental similarity with Sept-Îles (Table 39). The overall probability of survival at Sept-Îles was higher, with 12 source ports having higher or highest environmental similarity to Sept-Îles. However, all connected ports with higher or highest environmental similarity with Sept-Îles also had relatively low propagule supply, making these locations unlikely

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sources of ballast-mediated NIS to Sept-Îles (Figure 20). A list of global ports with highest environmental similarity to Sept-Îles is provided in Appendix A; NIS originating from these ports would have the highest probability for survival if introduced to Sept-Îles.

Three domestic GLSLR ports and 1 Atlantic port were identified and evaluated for environmental similarity with Havre-Saint-Pierre (Table 40). The overall probability of survival at Havre-Saint-Pierre was higher, with all 4 source ports having higher environmental similarity to Havre-Saint-Pierre. However, all connected ports with Havre-Saint-Pierre also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Havre-Saint-Pierre (Figure 21). A list of global ports with highest environmental similarity to Havre-Saint-Pierre is provided in Appendix H; NIS originating from these ports would have the highest probability for survival if introduced to Havre-Saint-Pierre.

Ten domestic GLSLR and 3 Atlantic ports were identified and evaluated for environmental similarity with Port-Cartier (Table 41). The overall probability of survival at Port-Cartier was higher, with 13 source ports having higher or highest environmental similarity to Port-Cartier. However, all connected ports with Port-Cartier also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Port-Cartier (Figure 22). A list of global ports with highest environmental similarity to Port-Cartier is provided in Appendix C; NIS originating from these ports would have the highest probability for survival if introduced to Port-Cartier.

#### Laker Merchant Vessels

Nine domestic GLSLR and 2 Atlantic ballast water source ports were identified and evaluated for environmental similarity with Sept-Îles (Table 42). The overall probability of survival at Sept-Îles was higher, with 4 source ports having higher or highest environmental similarity to Sept-Îles. However, all connected ports with higher or highest environmental similarity with Sept-Îles also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Sept-Îles (Figure 23). A list of global ports with highest environmental similarity to Sept-Îles is provided in Appendix A; NIS originating from these ports would have the highest probability for survival if introduced to Sept-Îles.

Six domestic GLSLR and 1 Atlantic ports were identified and evaluated for environmental similarity with Port-Cartier (Table 43). The overall probability of survival at Port-Cartier was highest, with 7 source ports having highest environmental similarity to Port-Cartier. However, all connected ports with highest environmental similarity to Port-Cartier also had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Port-Cartier (Figure 24). A list of global ports with highest environmental similarity to Port-Cartier is provided in Appendix C; NIS originating from these ports would have the highest probability for survival if introduced to Port-Cartier.

Two domestic GLSLR ports were identified and evaluated for environmental similarity with Baie-Comeau (Table 44). The overall probability of survival at Baie-Comeau was intermediate, with 1 source port having higher environmental similarity to Baie-Comeau. However, both connected ports with Baie-Comeau had relatively low propagule supply, making these locations unlikely sources of ballast-mediated NIS to Baie-Comeau (Figure 25). A list of global ports with highest environmental similarity to Baie-Comeau is provided in Appendix I; NIS originating from these ports would have the highest probability for survival if introduced to Baie-Comeau.

#### Atlantic Merchant Vessels

One Atlantic ballast water source port, Sept-Îles, was identified and evaluated for environmental similarity with Port-Cartier (Table 45). The environmental similarity between Port-Cartier and Sept-Îles indicates higher probability of survival. However, Sept-Îles does not appear to be a

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likely source for ballast-mediated NIS due to low propagule supply (Figure 26). A list of global ports with highest environmental similarity to Port-Cartier is provided in Appendix C; NIS originating from these ports would have the highest probability for survival if introduced to Port-Cartier.

One Atlantic ballast water source port, St. John's, was identified and evaluated for environmental similarity with Lewisporte (Table 46). The environmental similarity between Lewisporte and St. John's indicates highest probability of survival. However, St. John's does not appear to be a likely source for ballast-mediated NIS due to low propagule supply (Figure 27). A list of global ports with highest environmental similarity to Lewisporte is provided in Appendix J; NIS originating from these ports would have the highest probability for survival if introduced to Lewisporte.

One Atlantic ballast water source port, Saint-Pierre et Miquelon, was identified and evaluated for environmental similarity with Dartmouth-Halifax (Table 47). The environmental similarity between Dartmouth-Halifax and Saint-Pierre et Miquelon indicates higher probability of survival. However, Saint-Pierre et Miquelon does not appear to be a likely source for ballast-mediated NIS due to low propagule supply (Figure 28). A list of global ports with highest environmental similarity to Dartmouth-Halifax is provided in Appendix E; NIS originating from these ports would have the highest probability for survival if introduced to Dartmouth-Halifax.

One Atlantic ballast water source port, Saint-Pierre et Miquelon, was identified and evaluated for environmental similarity with St. John's (Table 48). The environmental similarity between St. John's and Saint-Pierre et Miquelon indicates highest probability of survival. However, Saint-Pierre et Miquelon does not appear to be a likely source for ballast-mediated NIS due to low propagule supply (Figure 29). A list of global ports with highest environmental similarity to St. John's is provided in Appendix K; NIS originating from these ports would have the highest probability for survival if introduced to St. John's.

### **Probability of Introduction (Ballast Water)**

Sept-Îles had higher probability for introduction of ballast-mediated NIS *via* international transoceanic merchant vessels, and Saint John had higher probability of introduction of ballast-mediated NIS *via* international exempt vessels (Table 49). Probability of introduction for the remaining top ports in each vessel category ranged from intermediate to lowest, thus ballast-mediated NIS introduction is less likely at these ports.

### **Magnitude of Consequences (Ballast Water)**

The cumulative number of high impact ballast-mediated NIS at each top port by vessel category ranged from 0 to 901, representing 78 distinct NIS (Table 50; Appendix L). Sept-Îles was rated highest for magnitude of potential consequences of NIS *via* international transoceanic merchant vessels, with a cumulative number of 901 high impact ballast-mediated NIS (78 distinct NIS). Port-Cartier was rated higher for magnitude of potential consequences of NIS *via* international transoceanic merchant vessels, with a cumulative number of 700 high impact ballast-mediated NIS (69 distinct NIS). The remaining top ports from all vessel categories rated lower to lowest for magnitude of potential consequences by ballast-mediated NIS. It is noted that some of the high impact species identified in Appendix L have already established in the Atlantic region with ship ballast being the most probable transport vector (e.g., *Carcinus maenas*).

### **Final Invasion Risk (Ballast Water)**

The final relative invasion risk for nonindigenous species *via* ballast water was higher for Sept-Îles (Québec) *via* international transoceanic vessels, while the final relative invasion risk was

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intermediate for Come By Chance-Whiffen Head (Newfoundland), Port-Cartier (Québec), Saint John (New Brunswick), and lower for all remaining top Atlantic ports (Table 51).

### **Secondary Spread by Ballast Water**

Baie-Comeau had highest potential for ballast-mediated spread of NIS within Canada (Appendix O). Baie-Comeau is a top port for Laker vessel traffic and therefore may serve as a hub for stepping stone invasions if ballast-mediated NIS successfully establish at this port. Baie-Comeau may also serve a prominent role in the spread of native nuisance species and/or established NIS. Spread potential for the remaining top ports rated lower to lowest potential and therefore these ports may play a less prominent role in the spread of ballast-mediated NIS within Canada.

### **The Future of Ship-mediated Invasions in the Atlantic Region**

Although ballast management regulations coupled with an intensive inspection regime for international vessels appear to have successfully reduced the future risk of introduction of new NIS from foreign ports in the freshwater Great Lakes-St. Lawrence River region (Bailey et al. 2011), Atlantic marine ports may be less protected since saltwater taxa are more likely to survive exchange and inspection rates are lower. Ballast water management systems utilizing technologies like filtration and chlorination can further reduce invasion risk by lowering propagule pressure more consistently than exchange methods; these systems are expected to be required for international vessels arriving to the Atlantic region by 2016 (IMO 2004). In addition to transoceanic merchant vessels, this study indicates that hull fouling of Atlantic non-merchant vessels and ballast water discharges of international exempt merchant vessels should be the focus of future efforts to reduce impacts of NIS in the Atlantic region.

The results presented in this report are based on current (2006) shipping patterns and environmental conditions; any changes to one or both factors in the future would lead to changes in ship-mediated invasion risk. In particular, recent efforts to increase shipping traffic at the 'Atlantic Gateway' could result in higher propagule pressure to the Atlantic region and/or establish new connections with highly environmentally similar global source ports – such as those listed in Appendices A through G (Government of Canada 2011). Further, climate change scenarios predict both thermal and physical changes in the Atlantic region of Canada which could impact analyses of environmental similarity between connected source and donor ports (Lines et al. 2008). A reanalysis of environmental similarity between donor and recipient port-pairs, using environmental variables as projected under climate change, may be useful to predict future invasion risk in the region.



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## CONCLUSIONS

- Ports of the Atlantic region are connected to international and domestic ports, resulting in potential for species transfers *via* hull fouling and/or ballast water discharge.
- The final relative invasion risk for nonindigenous species *via* hull fouling was higher for Dartmouth-Halifax (Nova Scotia), intermediate for Canso-Mulgrave – Point Tupper (Nova Scotia), Saint John (New Brunswick), Blacks Harbour (New Brunswick), North Head (New Brunswick), Saint-Siméon (Québec), Rivière-du-Loup (Québec), Isle-aux-Grues (Québec), and Matane (Québec), and lower for all remaining top Atlantic ports.
- The final relative invasion risk for nonindigenous species *via* ballast water was higher for Sept-Îles (Québec), intermediate for Come By Chance-Whiffen Head (Newfoundland), Port-Cartier (Québec), Saint John (New Brunswick), and lower for all remaining top Atlantic ports.
- It is important to note that all estimated probabilities and risk ratings presented in this document are based on a relative risk ranking system, allowing prioritization of ports within the Atlantic region, and that rankings of “lower” or “lowest” do not indicate zero risk. Relative rankings may change in the comprehensive national risk assessment considering differences in intensity of shipping traffic and environmental conditions across regions.

## RECOMMENDATIONS

- Biological sampling of ship vectors and recipient port habitats should be conducted with consideration of species-specific and site-specific characteristics to quantify/calibrate invasion risk and/or reduce uncertainty. Future research in the Atlantic region should be prioritized at the top ports identified as higher risk by this assessment.
- Additional pathway-based management recommendations derived from synthesis of the four regional risk assessments will be communicated in the national shipping risk assessment.

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## TABLES

*Table 1. Description of uncertainty levels based on data quality and suitability, modified from Therriault and Herborg (2007).*

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<b>Level of uncertainty</b>	<b>Data Quality</b>
Very high	Little or no scientific information; non supporting data
High	Limited scientific information; circumstantial evidence
Moderate	Moderate level of scientific information; first hand, unsystematic observations
Low	Substantial scientific information; expert opinion
Very low	Extensive scientific/systematic information; peer-reviewed data

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Table 2. Vessel classification system based on operational region and ship type with corresponding definitions and examples.

Vessel classification	Definition/Example	Management Requirements
<b>Operational region</b>		
International transoceanic	Vessels that operated outside the Canadian Exclusive Economic Zone (EEZ) on a transoceanic routes during the study period	Exchange/flush >200nm offshore and >2000m depth prior to entering Canadian EEZ; no management required for subsequent voyages within the EEZ
International coastal U.S.	Vessels that operated outside the Canadian EEZ and the exchange exemption zone on a coastal U.S. route during the study period	Exchange/flush >50nm offshore and > 500m depth prior to entering Canadian EEZ; no management required for subsequent voyages within the EEZ
International exempt	Vessels that operated outside the Canadian EEZ, but within the exchange exemption zone, during the study period	No exchange/flush required
Coastal domestic	Vessels that operated between Great Lakes', Canadian Atlantic, and Arctic ports, excluding Laker and Atlantic vessels, during the study period	No exchange/flush required
Atlantic	Vessels that operated exclusively between Atlantic ports inside the Canadian EEZ during the study period	No exchange/flush required
Laker	Vessels that operated exclusively within the Great Lakes and the St. Lawrence Estuary during the study period	No exchange/flush required
<b>Ship type</b>		
Merchant	Bulk carriers, tankers, general cargo, and roll on/roll off vessels	If ballast capacity >8m <sup>3</sup> , exchange/flush according to operational region (above)
Non-Merchant	Government (navy, warship, U.S. Coast Guard), pleasure (motor yachts, pleasure crafts, sailing vessels), fishing vessels and trawlers, passenger (cruise ships and ferries), research vessels, special purpose (cable vessels and heavy-lift ships), tugs and barges	Ballast capacity typically <8m <sup>3</sup> , no exchange/flush required

Table 3. Ranking system for probability of arrival of NIS to Atlantic ports via hull fouling, based on the annual number of vessel arrivals to each Atlantic port by vessel type.

Annual number of vessel arrivals	P(Arrival)
716-893	Highest
537-715	Higher
358-536	Intermediate
179-357	Lower
0 – 178	Lowest

Table 4. Ranking system for magnitude of consequences of invasion by hull fouling-mediated species, based on the cumulative number of high impact NIS recorded by Molnar et al. (2008) in ecoregions of all ports directly connected to each top Atlantic port.

Cumulative number of high impact fouling NIS	Magnitude of consequence
839 – 1,048	Highest
630 – 838	Higher
420 – 629	Intermediate
211 – 419	Lower
0 – 210	Lowest

Table 5. Matrix used to combine probability of introduction and magnitude of consequences of introduction into final risk rankings, modified from Therriault and Herborg (2007); green = lower risk, yellow = intermediate risk and red = higher risk.

		P (Introduction)				
		Lowest	Lower	Intermediate	Higher	Highest
Consequence	Highest	Intermediate	Intermediate	Higher	Higher	Higher
	Higher	Intermediate	Intermediate	Intermediate	Higher	Higher
	Intermediate	Lower	Intermediate	Intermediate	Intermediate	Higher
	Lower	Lower	Lower	Intermediate	Intermediate	Intermediate
	Lowest	Lower	Lower	Lower	Intermediate	Intermediate

Table 6. Ranking system for probability of arrival of NIS to Atlantic ports via ballast water, based on annual corrected volume of ballast water discharged at a single Atlantic port.

<b>Annual corrected volume of ballast water discharged (m<sup>3</sup>)</b>	<b>P(Arrival)</b>
2,357,169.37 - 2,946,461.70	Highest
1,767,877.03 - 2,357,169.36	Higher
1,178,585.69 - 1,767,877.02	Intermediate
589,292.35 - 1,178,585.68	Lower
0 - 589,292.34	Lowest

Table 7. Ranking system for probability of survival of NIS at top Atlantic ports, based on environmental distance between top Atlantic ports and all connected ballast water source ports.

<b>Environmental distance</b>	<b>P(Survival)</b>
0-1.29	Highest
1.30-2.58	Higher
2.59-3.87	Intermediate
3.88-5.16	Lower
5.17-6.45	Lowest

Table 8. Ranking system for magnitude of consequences of introduction of ballast-mediated species, based on cumulative number of high impact NIS recorded by Molnar et al. (2008) in ecoregions of all ports directly connected to each Atlantic top port.

<b>Cumulative number of high impact ballast-mediated NIS</b>	<b>Magnitude of consequence</b>
722 - 901	Highest
542 - 721	Higher
361 - 541	Intermediate
181 - 360	Lower
0 - 180	Lowest

Table 9. Arrival statistics for international transoceanic merchant vessels at the top 10 Atlantic ports. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Annual number of arrivals	P(Arrival) at port
Dartmouth – Halifax, NS*	893	Highest
Canso-Mulgrave – Point Tupper, NS*	269	Lower
Saint John, NB*	247	Lower
Sept-Îles, QC	234	Lower
Port-Cartier, QC	212	Lower
Come by Chance - Whiffen Head, NL	173	Lowest
Baie-Comeau, QC	156	Lowest
Anse a Benjamin - Port Alfred - Ville la Baie - Ville la Baie, QC	110	Lowest
Blacks Harbour, NB	105	Lowest
North Head, NB	105	Lowest

Table 10. Arrival statistics for international coastal U.S. merchant vessels at the top 10 Atlantic ports. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Annual number of arrivals	P(Arrival) at port
Canso-Mulgrave – Point Tupper, NS*	122	Lowest
Come by Chance - Whiffen Head, NL*	81	Lowest
Dartmouth - Halifax, NS*	67	Lowest
Saint John, NB	39	Lowest
Sept-Îles, QC	27	Lowest
Baie-Comeau, QC	18	Lowest
Port-Cartier, QC	13	Lowest
Lower Cove, NL	7	Lowest
Matane, QC	7	Lowest
Port Alfred, QC	7	Lowest

Table 11. Arrival statistics for international exempt merchant vessels at the top 10 Atlantic ports. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Annual number of arrivals	P(Arrival) at port
Saint John, NB*	281	Lower
Come by Chance - Whiffen Head, NL*	105	Lowest
Dartmouth - Halifax, NS*	54	Lowest
Conception Bay Harbour, NL	17	Lowest
St. John's, NL	15	Lowest
Charlottetown, PEI	13	Lowest
Canso-Mulgrave – Point Tupper, NS	12	Lowest
Argentia, NL	10	Lowest
Long Pond, NL	9	Lowest
Saint-Pierre et Miquelon, SPM	7	Lowest



Table 12. Arrival statistics for coastal domestic merchant vessels at the top 10 Atlantic ports. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Annual number of arrivals	P(Arrival) at port
Sept-Îles, QC*	134	Lowest
Dartmouth – Halifax, NS*	109	Lowest
St. John's, NL*	101	Lowest
Port-Cartier, QC	75	Lowest
Havre-Saint-Pierre, QC	58	Lowest
Grande Entree (Iles de la Madeleine), QC	47	Lowest
Corner Brook, NL	45	Lowest
Sydney, NS	40	Lowest
Baie-Comeau, QC	36	Lowest
Pugwash, NS	34	Lowest

Table 13. Arrival statistics for Laker merchant vessels at the top 10 Atlantic ports. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Annual number of arrivals	P(Arrival) at port
Port-Cartier, QC*	88	Lowest
Sept-Îles, QC*	79	Lowest
Baie-Comeau, QC*	44	Lowest

Table 14. Arrival statistics for Atlantic merchant vessels at the top 10 Atlantic ports. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Annual number of arrivals	P(Arrival) at port
Dartmouth – Halifax, NS*	92	Lowest
St. John's, NL*	48	Lowest
Saint-Pierre et Miquelon, SPM*	46	Lowest
Corner Brook, NL	38	Lowest
Cartwright, NL	29	Lowest
Nain, NL	23	Lowest
Black Tickle, NL	12	Lowest
Lewisporte, NL	5	Lowest
Butler Point Harbour, NL	4	Lowest
Goose Bay, NL	3	Lowest

Table 15. Arrival statistics for international non-merchant vessels at the top 10 Atlantic ports. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Annual number of arrivals	P(Arrival) at port
Yarmouth, NS*	178	Lowest
Dartmouth – Halifax, NS*	168	Lowest
St. John's, NL*	161	Lowest
Canso-Mulgrave – Point Tupper, NS	85	Lowest
Saint John, NB	81	Lowest
Cape Porcupine - Auld's Cove, NS	68	Lowest
Sydney, NS	43	Lowest
Corner Brook, NL	29	Lowest
Charlottetown, PEI	26	Lowest
Sept-Îles, QC	26	Lowest

Table 16. Arrival statistics for coastal domestic non-merchant vessels at the top 10 Atlantic ports. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Annual number of arrivals	P(Arrival) at port
Saint-Siméon, QC*	871	Highest
Rivière-du-Loup, QC*	866	Highest
Isle-aux-Grues, QC*	567	Higher
Montmagny, QC	494	Intermediate
Grosse-Île, QC	185	Lower
Rimouski, QC	123	Lowest
Matane, QC	101	Lowest
Sept-Îles, QC	98	Lowest
Cap-aux-Meules - Magdalen Islands, QC	96	Lowest
Cacouna, QC	92	Lowest

Table 17. Arrival statistics for Atlantic non-merchant vessels at the top 10 Atlantic ports. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Annual number of arrivals	P(Arrival) at port
Blacks Harbour, NB*	2155	Highest
North Head, NB*	1652	Highest
Matane, QC*	1235	Highest
Port aux Basques, NL	1147	Highest
North Sydney, NS	1107	Highest
Baie-Comeau, QC	811	Highest
Saint John, NB	716	Highest
Digby, NS	669	Higher
Rimouski, QC	485	Intermediate
St. John's, NL	479	Intermediate

Table 18. Probability of introduction of hull-mediated NIS to top Atlantic ports, by vessel category, with level of uncertainty indicated in brackets below each column heading.

	<b>P(Arrival)</b> (moderate)	<b>P(Survival)</b> (moderate)	<b>P(Introduction)</b> (moderate)
<b>International transoceanic merchant vessels</b>			
Dartmouth – Halifax, NS	Highest	Highest	Highest
Canso-Mulgrave – Point Tupper, NS	Lower	Highest	Lower
Saint John, NB	Lower	Highest	Lower
<b>International coastal U.S. merchant vessels</b>			
Canso-Mulgrave – Point Tupper, NS*	Lowest	Highest	Lowest
Come by Chance - Whiffen Head, NL*	Lowest	Highest	Lowest
Dartmouth - Halifax, NS*	Lowest	Highest	Lowest
<b>International exempt merchant vessels</b>			
Saint John, NB	Lower	Highest	Lower
Come by Chance - Whiffen Head, NL	Lowest	Highest	Lowest
Dartmouth - Halifax, NS	Lowest	Highest	Lowest
<b>Coastal domestic merchant vessels</b>			
Sept-Îles, QC	Lowest	Highest	Lowest
Dartmouth – Halifax, NS	Lowest	Highest	Lowest
St. John's, NL	Lowest	Highest	Lowest
<b>Laker merchant vessels</b>			
Port-Cartier, QC	Lowest	Lowest	Lowest
Sept-Îles, QC	Lowest	Lowest	Lowest
Baie-Comeau, QC	Lowest	Lowest	Lowest
<b>Atlantic merchant vessels</b>			
Dartmouth – Halifax, NS	Lowest	Highest	Lowest
St. John's, NL	Lowest	Highest	Lowest
Saint-Pierre et Miquelon, SPM	Lowest	Highest	Lowest
<b>International non-merchant vessels</b>			
Yarmouth, NS	Lowest	Highest	Lowest
Dartmouth – Halifax, NS	Lowest	Highest	Lowest
St. John's, NL	Lowest	Highest	Lowest
<b>Coastal domestic non-merchant vessels</b>			
Saint-Siméon, QC	Highest	Highest	Highest
Rivière-du-Loup, QC	Highest	Highest	Highest
Isle-aux-Grues, QC	Higher	Highest	Higher
<b>Atlantic non-merchant vessels</b>			
Blacks Harbour, NB	Highest	Highest	Highest
North Head, NB	Highest	Highest	Highest
Matane, QC	Highest	Highest	Highest

Table 19. Magnitude of consequences of introduction of hull fouling-mediated species at top Atlantic ports, by vessel category, based on the cumulative number of high impact NIS recorded by Molnar et al. (2008) in ecoregions of all ports directly connected to each Atlantic top port.

	Cumulative number of high impact fouling NIS	Magnitude of consequence
<b>International transoceanic merchant vessels</b>		
Dartmouth – Halifax, NS	1,048	Highest
Canso-Mulgrave – Point Tupper, NS	814	Higher
Saint John, NB	605	Intermediate
<b>International coastal U.S. merchant vessels</b>		
Canso-Mulgrave – Point Tupper, NS*	155	Lowest
Come by Chance - Whiffen Head, NL*	184	Lowest
Dartmouth - Halifax, NS*	149	Lowest
<b>International exempt merchant vessels</b>		
Saint John, NB	226	Lower
Come By Chance – Whiffen Head, NL	72	Lowest
Dartmouth - Halifax, NS	52	Lowest
<b>Coastal domestic merchant vessels</b>		
Sept-Îles, QC	86	Lowest
Dartmouth – Halifax, NS	70	Lowest
St. John's, NL	45	Lowest
<b>Laker merchant vessels</b>		
Port-Cartier, QC	32	Lowest
Sept-Îles, QC	32	Lowest
Baie-Comeau, QC	12	Lowest
<b>Atlantic merchant vessels</b>		
Dartmouth – Halifax, NS	15	Lowest
St. John's, NL	7	Lowest
Saint-Pierre et Miquelon, SPM	5	Lowest
<b>International non-merchant vessels</b>		
Yarmouth, NS	4	Lowest
Dartmouth – Halifax, NS	197	Lowest
St. John's, NL	121	Lowest
<b>Coastal domestic non-merchant vessels</b>		
Saint-Siméon, QC	28	Lowest
Rivière-du-Loup, QC	28	Lowest
Isle-aux-Grues, QC	24	Lowest
<b>Atlantic non-merchant vessels</b>		
Blacks Harbour, NB	65	Lowest
North Head, NB	58	Lowest
Matane, QC	40	Lowest

Table 20. Relative invasion risk to top Atlantic ports by hull fouling NIS, by vessel category, with level of uncertainty indicated in brackets below each column heading.

	<b>P(Introduction)</b> (moderate)	<b>Magnitude of consequence</b> (moderate)	<b>Invasion risk</b> (moderate)
<b>International transoceanic merchant vessels</b>			
Dartmouth – Halifax, NS	Highest	Highest	Higher
Canso-Mulgrave – Point Tupper, NS	Lower	Higher	Intermediate
Saint John, NB	Lower	Intermediate	Intermediate
<b>International coastal U.S. merchant vessels</b>			
Canso-Mulgrave – Point Tupper, NS*	Lowest	Lowest	Lower
Come by Chance - Whiffen Head, NL*	Lowest	Lowest	Lower
Dartmouth - Halifax, NS*	Lowest	Lowest	Lower
<b>International exempt merchant vessels</b>			
Saint John, NB	Lower	Lower	Lower
Whiffen Head – Come By Chance, NL	Lowest	Lowest	Lower
Dartmouth – Halifax, NS	Lowest	Lowest	Lower
<b>Coastal domestic merchant vessels</b>			
Sept-Îles, QC	Lowest	Lowest	Lower
Dartmouth – Halifax, NS	Lowest	Lowest	Lower
St. John's, NL	Lowest	Lowest	Lower
<b>Laker merchant vessels</b>			
Port-Cartier, QC	Lowest	Lowest	Lower
Sept-Îles, QC	Lowest	Lowest	Lower
Baie-Comeau, QC	Lowest	Lowest	Lower
<b>Atlantic merchant vessels</b>			
Dartmouth – Halifax, NS	Lowest	Lowest	Lower
St. John's, NL	Lowest	Lowest	Lower
Saint-Pierre et Miquelon, SPM	Lowest	Lowest	Lower
<b>International non-merchant vessels</b>			
Yarmouth, NS	Lowest	Lowest	Lower
Dartmouth – Halifax, NS	Lowest	Lowest	Lower
St. John's, NL	Lowest	Lowest	Lower
<b>Coastal domestic non-merchant vessels</b>			
Saint-Siméon, QC	Highest	Lowest	Intermediate
Rivière-du-Loup, QC	Highest	Lowest	Intermediate
Isle-aux-Grues, QC	Higher	Lowest	Intermediate
<b>Atlantic non-merchant vessels</b>			
Blacks Harbour, NB	Highest	Lowest	Intermediate
North Head, NB	Highest	Lowest	Intermediate
Matane, QC	Highest	Lowest	Intermediate

Table 21. Discharge statistics at Atlantic ports, by source of ballast water, for a 12 month period. Correction factors (10% for saline and 1% for freshwater source ports, respectively) were applied to account for reduction in propagule supply due to exchange/flushing. 'Direct' refers to water that was not exchanged prior to discharging.

**Ballast water discharge volume (m<sup>3</sup>)**

Number of discharge events	Grand total	Corrected foreign exchange		Foreign direct		Coastal U.S. exchange		Coastal U.S. direct		Coastal U.S. exempt direct	Corrected coastal U.S. exempt exchange		Corrected domestic exchange		Domestic direct		Unknown source	Corrected total
		SW	FW	SW	FW	SW	FW	SW	FW	SW	SW	SW	FW	SW	FW			
2,796	42,486,855	597,272	31,358	1,507,289	194,688	656,902	35,066	996,897	298,508	2,802,092	43,748	15,942	4,769	7,269,177	5,329,897	3,858,664	23,642,269	

Table 22. Discharge statistics at Atlantic ports, by ballast water source region, for a 12 month period. Corrected total volume reflects adjustments to account for reduction in propagule supply due to exchange/flushing.

FAO source region	Ballast water volume discharged (m <sup>3</sup> )	
	Total	Corrected Total
NW Atlantic	23,435,430.64	13,039,836.25
Great Lakes	6,032,609.88	5,966,220.48
Unknown	3,896,111.4	3,858,664.2
North Sea	5,110,142.50	530,240.05
WC Atlantic	1,037,253.5	274,207.58
NE Atlantic	1,616,276.00	260,000.93
Mediterranean	765,817.00	105,043.30
Baltic Sea	346,270.50	60,726.60
Black Sea	214,744.00	22,025.20
EC Atlantic	41,509.00	11,542.51
Arctic Sea	7,705.00	7,705.00
E Indian Ocean	2,430.00	657.00
NW Pacific	6,246.00	624.60
WC Pacific	5,743.00	574.30
SW Atlantic	2,043.50	223.97
Red Sea	980.00	98.00
EC Pacific	925.00	92.50

Table 23. Ballast water exchange statistics for international vessels at Atlantic ports, by vessel category and ballast water source, for a 12 month period.

Vessel Category	Ballast Water Source	Before mandatory regs			After mandatory regs		
		BWE	# of trips	% BWE	BWE	# of trips	% BWE
International transoceanic	Domestic*	5	167	2.99	9	182	4.94
	Coastal U.S.	175	289	60.55	235	306	76.80
	International	178	204	87.25	191	216	88.42
	Unknown	2	90	2.22	0	85	0
International coastal U.S.	Domestic*	1	15	6.67	1	19	5.26
	Coastal U.S.	111	127	87.40	130	152	85.53
	Unknown	0	11	0	0	12	0
International exempt**	Domestic	0	20	0	0	28	0
	Coastal U.S.	16	130	12.31	63	154	40.91
	Unknown	0	12	0	0	13	0

\* Note that BWE is not required for any vessel moving domestic ballast water on transits between Canadian ports.

\*\*Vessels in the international exempt category are not required to conduct BWE on any voyage.

Table 24. Ballast water discharge statistics for international transoceanic merchant vessels at the top 10 Atlantic ports. Correction factors (10% for saline and 1% for freshwater source ports, respectively) were applied to account for reduction in propagule supply due to exchange/flushing. 'Direct' refers to water that was not exchanged prior to discharging. The asterisk (\*) denotes the top three ports for this vessel category.

Top 10 ports	Number of discharge events	Annual volume of ballast water discharge (m <sup>3</sup> )														P(Arrival)	
		Grand total	Corrected foreign exchanged		Foreign direct		Coastal U.S. exchange		Coastal U.S. direct		Domestic exchange		Domestic direct		Unknown source		Corrected total
			SW	FW	SW	FW	SW	FW	SW	FW	SW	FW	SW	FW			
Sept-Îles, QC*	168	6,145,210	215,596	20,939	184,429	132,093	7,759	0	698	0	11	405	628,380	382,706	448,796	2,021,813	Higher
Port Cartier, QC*	164	4,438,822	188,862	9,197	91,388	42,309	5,312	281	0	1,553	0	2	704,223	397,118	312,549	1,752,794	Intermediate
Come By Chance-Whiffen Head, NL*	133	2,612,432	22,532	0	283,578	0	50,845	2,294	82,438	1,137	0	335	354,356	404,382	453,483	1,655,380	Intermediate
Dartmouth - Halifax, NS	236	1,929,968	61,971	316	275,958	8,807	8,812	1,274	95,559	17,739	454	0	377,252	66,104	216,058	1,130,304	Lower
Cape Porcupine, NL	62	1,421,137	20,565	113	31,502	0	13,739	557	5,762	15,932	0	0	627,128	19,339	311,412	1,046,049	Lower
Canso, NS	120	2,442,636	20,947	0	166,615	0	90,094	4,991	43,230	34,586	82	0	223,244	108,654	255,958	948,401	Lower
Saint John, NB	132	1,011,815	10,946	42	220,374	0	16,597	371	5,665	22,515	256	0	221,214	24,700	198,095	720,775	Lower
Baie-Comeau, QC	95	963,372	33,121	417	44,806	10,976	1,846	263	5,519	705	198	10	261,504	119,477	99,693	578,535	Lower
Lower Cove, NL	22	369,003	5,801	0	0	0	0	0	0	13,172	0	0	181,786	72,892	43,114	316,768	Lowest
Hantsport, NS	94	372,836	6,527	0	42,314	0	6,188	938	107,420	13,580	0	0	0	0	50,498	221,277	Lowest



Table 25. Ballast water discharge statistics for international coastal U.S. merchant vessels at the top 10 Atlantic ports. Correction factors (10% for saline (SW) and 1% for freshwater (FW) source ports, respectively) were applied to account for reduction in propagule supply due to exchange/flushing. 'Direct' refers to water that was not exchanged prior to discharging. The asterisk (\*) denotes the top three ports for this vessel category.

Top 10 ports	Number of discharge events	Annual volume of ballast water discharge (m <sup>3</sup> )										Corrected total	P(Arrival)
		Grand total	Corrected coastal exchange		Coastal direct		Domestic direct		Domestic exchange		Unknown source		
			SW	FW	SW	FW	SW	FW	SW	FW			
Canso-Mulgrave-Point Tupper, NS*	109	4,167,271	258,523	11,334	79,787	10	0	4,745	0	0	364,092	718,491	Lower
Come By Chance-Whiffen Head, NL*	75	2,164,804	110,471	7,708	84,554	67,407	20,180	33,463	0	12	82,488	406,283	Lowest
Dartmouth-Halifax, NS*	26	262,151	2,402	42	111,693	21,840	4,745	2,327	0	0	96,555	239,604	Lowest
Sept-Îles, QC	21	324,455	6,767	1,308	1,010	6,911	87,898	0	0	0	30,168	134,062	Lowest
Saint John, NB	29	179,584	6,227	167	56,522	25,972	13,350	3,851	88	0	0	106,177	Lowest
Cape Porcupine, NL	7	145,452	7,382	0	1,473	0	70,156	0	0	0	0	79,011	Lowest
Bayside, NS	5	45,593	88	0	27,014	0	3,851	0	0	0	13,845	44,790	Lowest
Sheet Harbour, NS	1	42,159	0	0	0	0	0	0	0	0	42,159	42,159	Lowest
Lower Cove, NL	13	93,925	4,029	199	12,023	0	0	21,683	0	0	0	37,934	Lowest
Eastport, NL	4	26,887	187	0	18,891	0	0	0	0	0	6,128	25,206	Lowest

Table 26. Ballast water discharge statistics for international exempt merchant vessels at the top 10 Atlantic ports. Correction factors (10% for saline (SW) and 1% for freshwater (FW) source ports, respectively) were applied to account for reduction in propagule supply due to exchange/flushing. 'Direct' refers to water that was not exchanged prior to discharging. The asterisk (\*) denotes the top three ports for this vessel category.

Top 10 ports	Number of discharge events	Annual volume of ballast water discharge (m <sup>3</sup> )									P(Arrival)	
		Grand total	Corrected foreign exchange		Coastal U.S. exchange		Coastal U.S. exempt exchange		Domestic direct	Unknown source		Corrected total
			SW	FW	SW	FW	SW	FW				
Saint John, NB*	288	3,276,633	2,270	10,576	0	134,423	23,840	2,416,244	177,974	181,134	2,946,462	Highest
Come By Chance-Whiffen Head, NL*	24	1,085,488	0	3,965	931	0	16,597	295,904	417,126	73,718	808,241	Lower
Conception Bay Harbour, NL*	17	799,902	0	0	589	47,744	0	46,241	434,064	212,990	741,627	Lower
Long Pond, NL	4	235,698	0	0	0	0	0	0	172,374	63,323	235,698	Lowest
Marystown, NL	1	62,182	0	0	0	0	0	0	62,182	0	62,182	Lowest
Canso-Mulgrave – Point Tupper, NS	2	47,351	0	0	0	0	0	459	46,892	0	47,351	Lowest
Dartmouth – Halifax, NS	8	40,517	0	100	0	7,569	134	26,701	3,908	0	38,412	Lowest
Cape Porcupine – Auld's Cove, NS	6	54,770	0	0	0	0	2,996	4,099	10,354	10,354	27,803	Lowest
Baie-Comeau, QC	3	20,700	0	0	0	0	0	0	20,700	0	20,700	Lowest
Sydney, NS	1	10,642	0	0	0	0	0	10,642	0	0	10,642	Lowest

Table 27. Ballast water discharge statistics for coastal domestic merchant vessels at the top 10 Atlantic ports. Correction factors (10% for saline and 1% for freshwater source ports, respectively) were applied to account for reduction in propagule supply due to exchange/flushing. 'Direct' refers to water that was not exchanged prior to discharging. The asterisk (\*) denotes the top three ports for this vessel category.

Top 10 ports	Number of discharge events	Annual volume of ballast water discharge (m <sup>3</sup> )			P(Arrival)	
		Grand total	Domestic direct	Unknown source		Corrected total
Sept-Îles, QC*	74	1,017,871	1,017,871	0	1,017,871	Lower
Havre-Saint-Pierre, QC*	49	619,390	619,390	0	619,390	Lower
Port-Cartier, QC*	44	583,390	583,074	316	583,390	Lowest
Halifax – Dartmouth, NS	65	368,220	368,220	0	368,220	Lowest
Mine Seleine, QC	28	345,073	345,073	0	345,073	Lowest
Lower Cove, NL	18	256,650	256,650	0	256,650	Lowest
Little Narrows, NS	16	230,392	230,392	0	230,392	Lowest
Belledune, NB	8	103,936	103,936	0	103,936	Lowest
Pugwash, NS	29	77,855	74,253	3,602	77,855	Lowest
Saint John, NB	11	60,465	60,465	0	60,465	Lowest

Table 28. Ballast water discharge statistics for Laker merchant vessels at the top 10 Atlantic ports. Correction factors (10% for saline and 1% for freshwater source ports, respectively) were applied to account for reduction in propagule supply due to exchange/flushing. 'Direct' refers to water that was not exchanged prior to discharging.

Top ports	Number of discharge events	Annual volume of ballast water discharge (m <sup>3</sup> )		
		Grand total	Domestic direct	P(Arrival)
Sept-Îles, QC	69	982,493	982,493	Lower
Port-Cartier, QC	46	541,094	541,094	Lowest
Baie-Comeau, QC	3*	36,036	36,036	Lowest

Note that all ballast water moved by Laker vessels was discharged directly, thus the 'Corrected total' volume is equal to the 'Grand total' and is omitted from this table. \*Baie-Comeau typically receives Laker traffic similar to Port-Cartier; numbers here reflect strike conditions at Cargill grain terminal.

Table 29. Ballast water discharge statistics for Atlantic merchant vessels at the top 10 Atlantic ports. Correction factors (10% for saline and 1% for freshwater source ports, respectively) were applied to account for reduction in propagule supply due to exchange/flushing. 'Direct' refers to water that was not exchanged prior to discharging. The asterisk (\*) denotes the top three ports for this vessel category.

Top ports	Number of discharge events	Annual volume of ballast water discharge (m <sup>3</sup> )		
		Grand total	Domestic direct	P(Arrival)
Port-Cartier, QC*	1	37,771	37,771	Lowest
Lewisporte, NL*	1	30,058	30,058	Lowest
Dartmouth-Halifax, NS*	1	1,058.1	1,058.1	Lowest
St. John's, NL*	1	1,058.1	1,058.1	Lowest
Corner Brook, NL	1	480	480	Lowest

Note that all ballast water moved by Atlantic merchant vessels was discharged directly, thus the 'Corrected total' volume is equal to the 'Grand total' and is omitted from this table.

Table 30. Environmental distance between Sept-Îles, QC and source ports connected via ballast water discharge by international transoceanic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Amsterdam*	Netherlands	2.01	Higher
Antwerp	Belgium	2.65	Intermediate
Aviles*	Spain	2.31	Higher
Baie-Comeau*	Canada	0.50	Highest
Baltimore	United States	2.94	Intermediate
Belledune*	Canada	0.37	Highest
Brake*	Germany	1.31	Higher
Brest*	France	1.76	Higher
Becancour*	Canada	2.56	Higher
Cote Ste-Catherine	Canada	2.70	Intermediate
Chicoutimi*	Canada	2.48	Higher
Constantza*	Romania	2.26	Higher
Contrecoeur	Canada	2.63	Intermediate
Ensted*	Denmark	1.33	Higher
Eregli*	Turkey	2.32	Higher
Ferrol*	Spain	2.35	Higher
Ghent	Belgium	2.60	Intermediate
Gibraltar	Gibraltar	2.72	Intermediate
Gijon*	Spain	2.31	Higher
Grande Anse*	Canada	1.13	Highest
Hadera	Israel	3.55	Intermediate
Halifax*	Canada	1.25	Highest
Hamburg*	Germany	1.30	Higher
Hunterston*	United Kingdom	1.52	Higher
Ijmuiden*	Netherlands	1.35	Higher
Immingham*	United Kingdom	1.04	Highest
Inkoo*	Finland	1.92	Higher
Isdemir (Iskenderun)	Turkey	3.94	Lower
Liverpool*	United Kingdom	1.64	Higher
Lorient*	France	2.14	Higher
Lulea*	Sweden	1.93	Higher
Matanzas	Venezuela	5.33	Lowest
Moneypoint*	Ireland	1.89	Higher
Montreal	Canada	2.72	Intermediate
Mosjoen*	Norway	1.61	Higher
Point Lisas	Trinidad and Tobago	4.62	Lower
Port Alfred*	Canada	0.99	Highest
Port Talbot*	United Kingdom	1.80	Higher
Portbury*	United Kingdom	1.47	Higher
Port-Cartier	Canada	0.70	Highest
Québec City*	Canada	2.55	Higher
Redcar*	United Kingdom	1.07	Highest
Rotterdam*	Netherlands	2.50	Higher

Source port	Source port country	Environmental distance	P(Survival)
Salem*	United States	1.93	Higher
Santander*	Spain	2.32	Higher
Sauda*	Norway	1.96	Higher
Sorel	Canada	2.65	Intermediate
Sparrow's Point*	United States	1.96	Higher
St Lawrence Seaway*	Canada	0.47	Highest
Summerside*	Canada	1.23	Highest
Sydney	Canada	3.29	Intermediate
Tananger (Stavanger)*	Norway	0.83	Highest
Taranto	Italy	3.05	Intermediate
Tarragona	Spain	2.88	Intermediate
Tonsberg*	Norway	0.99	Highest
Toros	Turkey	3.40	Intermediate
Trois-Rivières *	Canada	2.57	Higher
Valencia	Spain	3.12	Intermediate
Zelzate*	Belgium	2.55	Higher
<b>Overall</b>		<b>2.12</b>	<b>Higher</b>

Table 31. Environmental distance between Come By Chance - Whiffen Head, NL and source ports connected via ballast water discharge by international transoceanic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Albany	United States	2.60	Intermediate
Baltimore*	United States	2.48	Higher
Bayonne*	United States	2.27	Higher
Bayway*	United States	0.94	Highest
Boston*	United States	1.73	Higher
Bridgeport*	United States	0.92	Highest
Canaport*	Canada	0.69	Highest
Dartmouth*	Canada	1.09	Highest
Delaware City	United States	2.89	Intermediate
Freeport	Bahamas	4.11	Lower
Halifax*	Canada	0.82	Highest
Holyrood*	Canada	0.21	Highest
Jacksonville	United States	3.22	Intermediate
Jamestown*	United States	1.35	Higher
Kingston	Jamaica	4.14	Lower
Marystown*	Canada	0.58	Highest
Montreal*	Canada	2.50	Higher
New Haven*	United States	1.36	Higher
New Orleans	United States	3.80	Intermediate
New York & New Jersey*	United States	2.24	Higher
Perth Amboy*	United States	0.98	Highest
Philadelphia	United States	2.88	Intermediate
Portland (Maine)*	United States	0.46	Highest
Providence*	United States	2.09	Higher
Québec City*	Canada	2.40	Higher
Saint John*	Canada	0.37	Highest
San Juan	Puerto Rico	4.00	Lower
San Pedrito Port	Mexico	4.23	Lower
Searsport*	United States	1.60	Higher
St. John's*	Canada	0.72	Highest
Strait of Canso*	Canada	0.33	Highest
Tema	Ghana	3.91	Lower
Waterford*	Ireland	1.08	Highest
Yabucoa	Puerto Rico	4.04	Lower
Yorktown*	United States	1.82	Higher
<b>Overall</b>		<b>2.02</b>	<b>Higher</b>

Table 32. Environmental distance between Port-Cartier, QC and source ports connected via ballast water discharge by international transoceanic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Antwerp	Belgium	2.46	Higher
Aughinish	Ireland	2.05	Higher
Aviles	Spain	2.02	Higher
Baie-Comeau	Canada	1.16	Highest
Becancour	Canada	2.29	Higher
Belledune	Canada	0.57	Highest
Bordeaux	France	2.80	Intermediate
Bristol	United Kingdom	1.82	Higher
Cacouna	Canada	0.52	Highest
Carboneras	Spain	2.72	Intermediate
Casablanca	Morocco	2.75	Intermediate
Constantza	Romania	1.84	Higher
Contrecoeur	Canada	4.36	Lower
Dunkirk	France	1.19	Highest
Ensted	Denmark	1.14	Highest
Ferrol	Spain	2.05	Higher
Fos	France	2.17	Higher
Ghazaouet	Algeria	2.69	Intermediate
Ghent	Belgium	2.40	Higher
Grundartangi	Iceland	1.16	Highest
Hamburg	Germany	0.99	Highest
Hamilton	Canada	2.35	Higher
Houston	United States	3.82	Intermediate
Hunterston	United Kingdom	1.44	Higher
Ijmuiden	Netherlands	1.03	Highest
Immingham	United Kingdom	1.07	Highest
Leixoes	Portugal	2.10	Higher
Liverpool	United Kingdom	1.46	Higher
Livorno (Leghorn)	Italy	2.26	Higher
Moneypoint	Ireland	1.75	Higher
Montoir	France	1.98	Higher
Montreal	Canada	2.40	Higher
New Haven	United States	1.45	Higher
New Orleans	United States	3.85	Intermediate
Nova Scotia Power Corporation wharf	Canada	0.51	Highest
Philadelphia	United States	2.85	Intermediate
Port Alfred	Canada	0.39	Highest
Port Menier	Canada	0.16	Highest
Port Nador	Morocco	2.65	Intermediate
Port Talbot	United Kingdom	1.62	Higher
Providence	United States	2.06	Higher
Québec	Canada	2.28	Higher



Source port	Source port country	Environmental distance	P(Survival)
Redcar	United Kingdom	1.21	Highest
Rotterdam	Netherlands	2.31	Higher
Savannah	United States	3.45	Intermediate
Savona-Vado	Italy	2.06	Higher
Sept-les	Canada	0.70	Highest
Sorel	Canada	2.35	Higher
Sparrow's Point	United States	1.56	Higher
Toronto	Canada	2.31	Higher
Trois-Rivières	Canada	2.30	Higher
Valleyfield	Canada	2.38	Higher
Windsor	Canada	2.45	Higher
Yanbu	Saudi Arabia	4.40	Lower
<b>Overall</b>		<b>2.00</b>	<b>Higher</b>

Table 33. Environmental distance between Canso-Mulgrave-Point Tupper, NS and source ports connected via ballast water discharge by international coastal U.S. merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source Port	Source Port Country	Environmental Distance	P(Survival)
Bayway*	United States	2.53	Higher
Halifax*	Canada	0.56	Highest
Jacksonville	United States	2.84	Intermediate
New Haven*	United States	0.89	Highest
New York & New Jersey*	United States	1.84	Higher
Paulsboro*	United States	2.55	Higher
Pennsauken*	United States	2.54	Higher
Philadelphia*	United States	2.54	Higher
Port Reading*	United States	2.53	Higher
Savannah	United States	3.02	Intermediate
<b>Overall</b>		<b>2.18</b>	<b>Higher</b>

Table 34. Environmental distance between Come By Chance - Whiffen Head, NL and source ports connected via ballast water discharge by international coastal U.S. merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source Port	Source Port Country	Environmental Distance	P(Survival)
Albany	United States	2.60	Intermediate
Baltimore*	United States	2.48	Higher
Beaumont	United States	2.97	Intermediate
Camden	United States	2.88	Intermediate
Carteret*	United States	1.17	Highest
Delaware City	United States	2.89	Intermediate
Everglades	United States	4.16	Lower
New Haven*	United States	1.36	Higher
New York & New Jersey*	United States	2.24	Higher
Paulsboro	United States	2.89	Intermediate
Philadelphia	United States	2.88	Intermediate
Piney Point*	United States	2.25	Higher
Riverhead*	United States	0.97	Highest
Savannah	United States	3.39	Intermediate
Wilmington (Delaware)	United States	2.86	Intermediate
Yorktown*	United States	1.82	Higher
<b>Overall</b>		<b>2.49</b>	<b>Higher</b>

Table 35. Environmental distance between Dartmouth-Halifax, NS and source ports connected via ballast water discharge by international coastal U.S. merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source Port	Source Port Country	Environmental Distance	P(Survival)
Baltimore*	United States	1.71	Higher
Bridgeport*	United States	0.67	Highest
Corner Brook*	Canada	0.80	Highest
Houston	United States	3.03	Intermediate
Montreal*	Canada	1.74	Higher
New York & New Jersey*	United States	1.46	Higher
Philadelphia*	United States	2.06	Higher
Port Everglades	United States	3.87	Intermediate
Rensselaer*	United States	1.81	Higher
Riverhead*	United States	0.76	Highest
Tampa	United States	3.25	Intermediate
Trois-Rivières*	Canada	1.70	Higher
<b>Overall</b>		<b>1.91</b>	<b>Higher</b>

Table 36. Environmental distance between Saint John, NB and source ports connected via ballast water discharge by international exempt merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Albany	United States	2.60	Intermediate
Baltimore*	United States	2.48	Higher
Bayonne*	United States	2.27	Higher
Bayway*	United States	0.94	Highest
Boston*	United States	1.73	Higher
Bridgeport*	United States	0.92	Highest
Canaport*	Canada	0.69	Highest
Carteret, NJ*	United States	1.17	Highest
Dartmouth*	Canada	1.09	Highest
Delaware City	United States	2.89	Intermediate
Freeport	Bahamas	4.11	Lower
Halifax*	Canada	0.82	Highest
Holyrood*	Canada	0.21	Highest
Jacksonville	United States	3.22	Intermediate
Jamestown*	United States	1.35	Higher
Kingston	Jamaica	4.14	Lower
Marcus Hook*	United States	2.89	Higher
Marystown*	Canada	0.58	Highest
Montreal*	Canada	2.50	Higher
New Haven*	United States	1.36	Higher
New Orleans	United States	3.80	Intermediate
New York & New Jersey*	United States	2.24	Higher
Perth Amboy*	United States	0.98	Highest
Philadelphia	United States	2.88	Intermediate
Portland (Maine)*	United States	0.46	Highest
Providence*	United States	2.09	Higher
Québec City*	Canada	2.40	Higher
Saint John*	Canada	0.37	Highest
San Juan	Puerto Rico	4.00	Lower
San Pedrito Port	Mexico	4.23	Lower
Searsport*	United States	1.60	Higher
St. John's*	Canada	0.72	Highest
Strait of Canso*	Canada	0.33	Highest
Tema	Ghana	3.91	Lower
Waterford*	Ireland	1.08	Highest
Yabucoa	Puerto Rico	4.04	Lower
Yorktown*	United States	1.82	Higher
<b>Overall</b>		<b>2.05</b>	<b>Higher</b>

Table 37. Environmental distance between Come By Chance - Whiffen Head, NL and source ports connected via ballast water discharge by international exempt merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Boston*	United States	1.73	Higher
Hibernia Platform*	Canada	1.27	Highest
Houston	United States	3.77	Intermediate
Paulsboro	United States	2.89	Intermediate
Point Tupper*	Canada	0.50	Highest
Portland*	United States	2.58	Higher
Saint John*	Canada	0.37	Highest
Searsport*	United States	1.60	Higher
Strait of Canso*	Canada	0.67	Highest
Whiffen Head	Canada	0.00	Highest
White Rose Oil Field harbour	Canada	1.22	Highest
Yorktown	United States	1.82	Higher
<b>Overall</b>		<b>1.54</b>	<b>Higher</b>

Table 38. Environmental distance between Conception Bay Harbour, NL and source ports connected via ballast water discharge by international exempt merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Hibernia Platform*	Canada	0.29	Highest
Houston	United States	4.50	Lower
Paulsboro	United States	3.56	Intermediate
Portland	United States	3.09	Intermediate
Saint John*	Canada	1.32	Higher
Strait of Canso*	Canada	0.66	Highest
Yorktown	United States	2.74	Intermediate
<b>Overall</b>		<b>2.31</b>	<b>Higher</b>

Table 39. Environmental distance between Sept-Îles, QC and source ports connected via ballast water discharge by coastal domestic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Baie-Comeau*	Canada	0.50	Highest
Belledune*	Canada	0.37	Highest
Becancour*	Canada	2.56	Higher
Côte-Sainte-Catherine	Canada	2.70	Intermediate
Charlottetown PEI*	Canada	0.76	Highest
Conneaut	Canada	2.83	Intermediate
Contrecoeur	Canada	2.63	Intermediate
Hamilton	Canada	2.59	Intermediate
Johnstown Harbour*	Canada	0.55	Highest
Lower Cove*	Canada	0.40	Highest
Montreal	Canada	2.72	Intermediate
Nanticoke	Canada	2.76	Intermediate
Picton	Canada	2.70	Intermediate
Port-Cartier	Canada	0.70	Highest
Portneuf*	Canada	0.98	Highest
Québec City*	Canada	2.55	Higher
Sorel	Canada	2.65	Intermediate
Summerside*	Canada	1.23	Highest
Toronto*	Canada	2.56	Higher
Trois-Rivières*	Canada	2.57	Higher
<b>Overall</b>		<b>1.87</b>	<b>Higher</b>

Table 40. Environmental distance between Havre-Saint-Pierre, QC and source ports connected via ballast water discharge by coastal domestic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Becancour*	Canada	2.40	Higher
Montreal*	Canada	2.53	Higher
Port-Cartier *	Canada	2.47	Higher
Sorel*	Canada	2.47	Higher
<b>Overall</b>		<b>2.47</b>	<b>Higher</b>

Table 41. Environmental distance between Port-Cartier, QC and source ports connected via ballast water discharge by coastal domestic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Baie-Comeau	Canada	1.16	Highest
Belledune*	Canada	0.57	Highest
Becancour*	Canada	2.29	Higher
Côte-Sainte-Catherine*	Canada	2.39	Higher
Contrecoeur*	Canada	2.34	Higher
Hamilton*	Canada	2.35	Higher
Montreal*	Canada	2.40	Higher
Picton*	Canada	2.41	Higher
Québec City*	Canada	2.28	Higher
Sept-Îles	Canada	0.70	Highest
Sorel*	Canada	2.35	Higher
Toronto*	Canada	2.31	Higher
Trois-Rivières*	Canada	2.30	Higher
<b>Overall</b>		<b>1.99</b>	<b>Higher</b>

Table 42. Environmental distance between Sept-Îles, QC and source ports connected via ballast water discharge by Laker merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Baie-Comeau*	Canada	0.50	Highest
Côte-Sainte-Catherine	Canada	2.70	Intermediate
Hamilton	Canada	2.59	Intermediate
Montreal	Canada	2.72	Intermediate
Ogdensburg	United States	2.69	Intermediate
Picton	Canada	2.70	Intermediate
Port-Cartier	Canada	0.70	Highest
Portneuf*	Canada	0.98	Highest
Québec City*	Canada	2.55	Higher
Sorel	Canada	2.65	Intermediate
Valleyfield	Canada	2.69	Intermediate
<b>Overall</b>		<b>2.13</b>	<b>Higher</b>

Table 43. Environmental distance between Port-Cartier, QC and source ports connected via ballast water discharge by Laker merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Baie-Comeau	Canada	1.16	Highest
Contrecoeur*	Canada	2.34	Higher
Hamilton*	Canada	2.35	Higher
Montreal*	Canada	2.40	Higher
Québec City*	Canada	2.28	Higher
Sorel*	Canada	2.35	Higher
Trois-Rivières*	Canada	2.30	Higher
<b>Overall</b>		<b>2.17</b>	<b>Higher</b>

Table 44. Environmental distance between Baie-Comeau, QC and source ports connected via ballast water discharge by Laker merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Thunder Bay*	Canada	2.25	Higher
Welland Canal	Canada	2.95	Intermediate
<b>Overall</b>		<b>2.60</b>	<b>Intermediate</b>

Table 45. Environmental distance between Port-Cartier, QC and source ports connected via ballast water discharge by Atlantic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Sept-Îles/Pointe Noire*	Canada	<b>0.70</b>	<b>Highest</b>

Table 46. Environmental distance between Lewisporte, NL and source ports connected via ballast water discharge by Atlantic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
St John's*	Canada	<b>0.08</b>	<b>Highest</b>

Table 47. Environmental distance between Dartmouth-Halifax, NS and source ports connected via ballast water discharge by Atlantic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Saint-Pierre et Miquelon*	Saint-Pierre et Miquelon	<b>1.33</b>	<b>Higher</b>

Table 48. Environmental distance between St. John's, NL and source ports connected via ballast water discharge by Atlantic merchant vessels. The asterisk (\*) denotes source ports that received higher or highest probability of survival.

Source port	Source port country	Environmental distance	P(Survival)
Saint-Pierre et Miquelon*	Saint-Pierre et Miquelon	0.08	Highest

Table 49. Probability of introduction of ballast-mediated NIS to top Atlantic ports, by vessel category, with level of uncertainty in brackets below each column heading.

	P(Arrival) (low)	P(Survival) (low)	P(Introduction) (low)
<b>International transoceanic merchant vessel ballast water discharges</b>			
Sept-Îles, QC	Higher	Higher	Higher
Come By Chance-Whiffen Head, NL	Intermediate	Higher	Intermediate
Port-Cartier, QC	Intermediate	Higher	Intermediate
<b>International Coastal U.S. vessel ballast water discharges</b>			
Canso-Mulgrave-Point Tupper, NS	Lower	Higher	Lower
Come By Chance-Whiffen Head, NL	Lowest	Higher	Lowest
Dartmouth-Halifax, NS	Lowest	Higher	Lowest
<b>International exempt merchant vessel ballast water discharges</b>			
Saint John, NB	Highest	Higher	Higher
Come By Chance-Whiffen Head, NL	Lower	Higher	Lower
Conception Bay Harbour, NL	Lower	Higher	Lower
<b>Coastal domestic merchant vessel ballast water discharges</b>			
Sept-Îles, QC	Lower	Higher	Lower
Havre-Saint-Pierre, QC	Lower	Higher	Lower
Port-Cartier, QC	Lowest	Higher	Lowest
<b>Laker merchant vessel ballast water discharges</b>			
Sept-Îles, QC	Lower	Higher	Lower
Port-Cartier, QC	Lowest	Higher	Lowest
Baie-Comeau, QC	Lowest	Intermediate	Lowest
<b>Atlantic merchant vessel ballast water discharges</b>			
Port-Cartier, QC	Lowest	Highest	Lowest
Lewisporte, NL	Lowest	Highest	Lowest
Dartmouth-Halifax, NS	Lowest	Higher	Lowest
St. John's, NL	Lowest	Highest	Lowest



Table 50. Magnitude of potential consequences of introduction of ballast-mediated species at top Atlantic ports, by vessel category, based on the cumulative number of high impact NIS recorded by Molnar et al. (2008) in ecoregions of all ports directly connected to each top port.

	<b>Cumulative number of high impact ballast-mediated NIS</b>	<b>Magnitude of Consequence</b>
<b>International transoceanic merchant vessel ballast water discharges</b>		
Sept-Îles, QC	901	Highest
Come By Chance - Whiffen Head, NL	333	Lower
Port-Cartier, QC	700	Higher
<b>International Coastal U.S. vessel ballast water discharges</b>		
Come By Chance-Whiffen Head, NL	241	Lower
Saint John, NB	262	Lower
Canso-Mulgrave-Point Tupper, NS	124	Lowest
<b>International exempt merchant vessel ballast water discharges</b>		
Saint John, NB	219	Lower
Come By Chance - Whiffen Head, NL	86	Lowest
Conception Bay Harbour, NL	61	Lowest
<b>Coastal domestic merchant vessel ballast water discharges</b>		
Sept-Îles, QC	42	Lowest
Havre-Saint-Pierre, QC	12	Lowest
Port-Cartier, QC	30	Lowest
<b>Laker merchant vessel ballast water discharges</b>		
Sept-Îles, QC	18	Lowest
Port-Cartier, QC	24	Lowest
Baie-Comeau, QC	0	Lowest
<b>Atlantic merchant vessel ballast water discharges</b>		
Port-Cartier, QC	3	Lowest
Lewisporte, NL	0	Lowest
Dartmouth - Halifax, NS	2	Lowest
St. John's, NL	2	Lowest

Table 51. Relative invasion risk to top Atlantic ports by ballast-mediated NIS, by vessel category, with level of uncertainty indicated in brackets below each column heading.

	<b>P(Introduction)</b> (low)	<b>Magnitude of Consequence</b> (moderate)	<b>Invasion risk</b> (moderate)
<b>International transoceanic merchant vessel ballast water discharges</b>			
Sept-Îles, QC	Higher	Highest	Higher
Come By Chance-Whiffen Head, NL	Higher	Lower	Intermediate
Port-Cartier, QC	Intermediate	Higher	Intermediate
<b>International Coastal U.S. vessel ballast water discharges</b>			
Come By Chance-Whiffen Head, NL	Lowest	Lower	Lower
Saint John, NB	Lowest	Lower	Lower
Canso-Mulgrave-Point Tupper, NS	Lowest	Lowest	Lower
<b>International exempt merchant vessel ballast water discharges</b>			
Saint John, NB	Higher	Lower	Intermediate
Come By Chance-Whiffen Head, NL	Lower	Lowest	Lower
Conception Bay Harbour, NL	Lower	Lowest	Lower
<b>Coastal domestic merchant vessel ballast water discharges</b>			
Sept-Îles, QC	Lower	Lowest	Lower
Havre-Saint-Pierre, QC	Lower	Lowest	Lower
Port-Cartier, QC	Lowest	Lowest	Lower
<b>Laker merchant vessel ballast water discharges</b>			
Sept-Îles, QC	Lower	Lowest	Lower
Port-Cartier, QC	Lowest	Lowest	Lower
Baie-Comeau, QC	Lowest	Lowest	Lower
<b>Atlantic merchant vessel ballast water discharges</b>			
Port-Cartier, QC	Lowest	Lowest	Lower
Lewisporte, NL	Lowest	Lowest	Lower
Dartmouth-Halifax, NS	Lowest	Lowest	Lower
St. John's, NL	Lowest	Lowest	Lower

## FIGURES

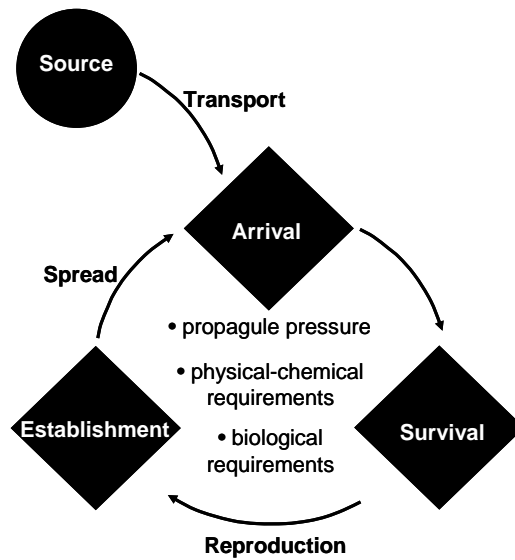


Figure 1. Stages of the biological invasion process.

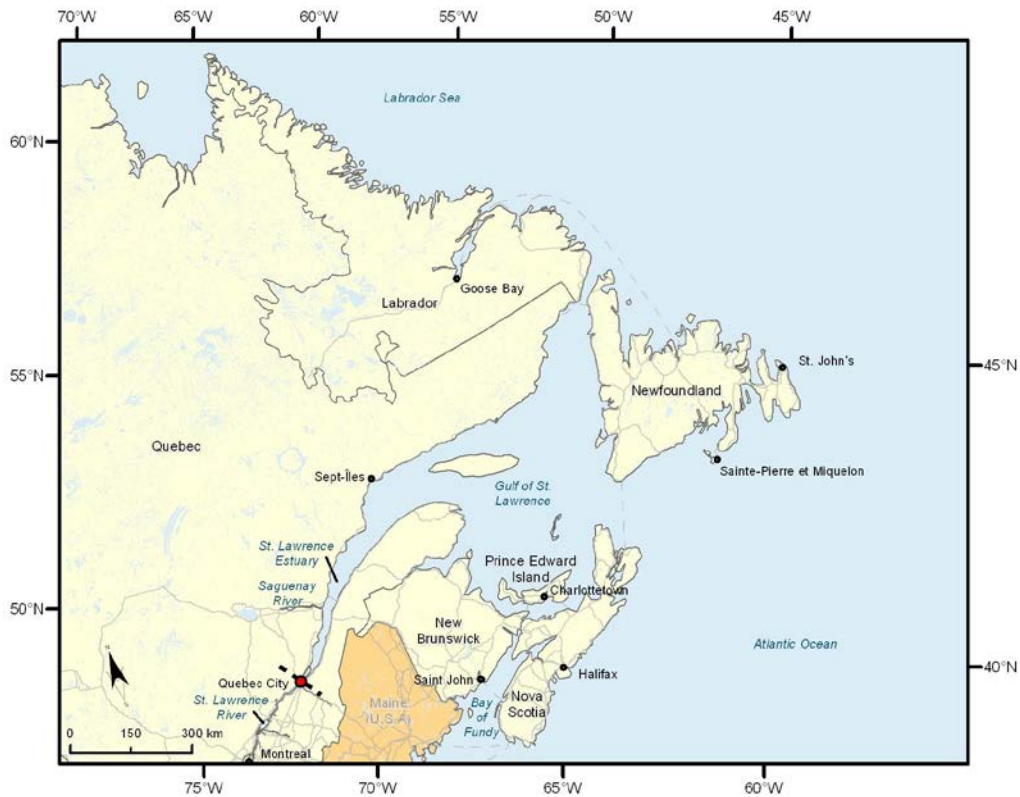


Figure 2. Map of the Atlantic region, which includes all freshwater ports east of Québec City, and all marine ports in the St. Lawrence estuary, Gulf of St. Lawrence, and Atlantic coast. The broken line demarcates the western limit of the Atlantic region as defined in this risk assessment.

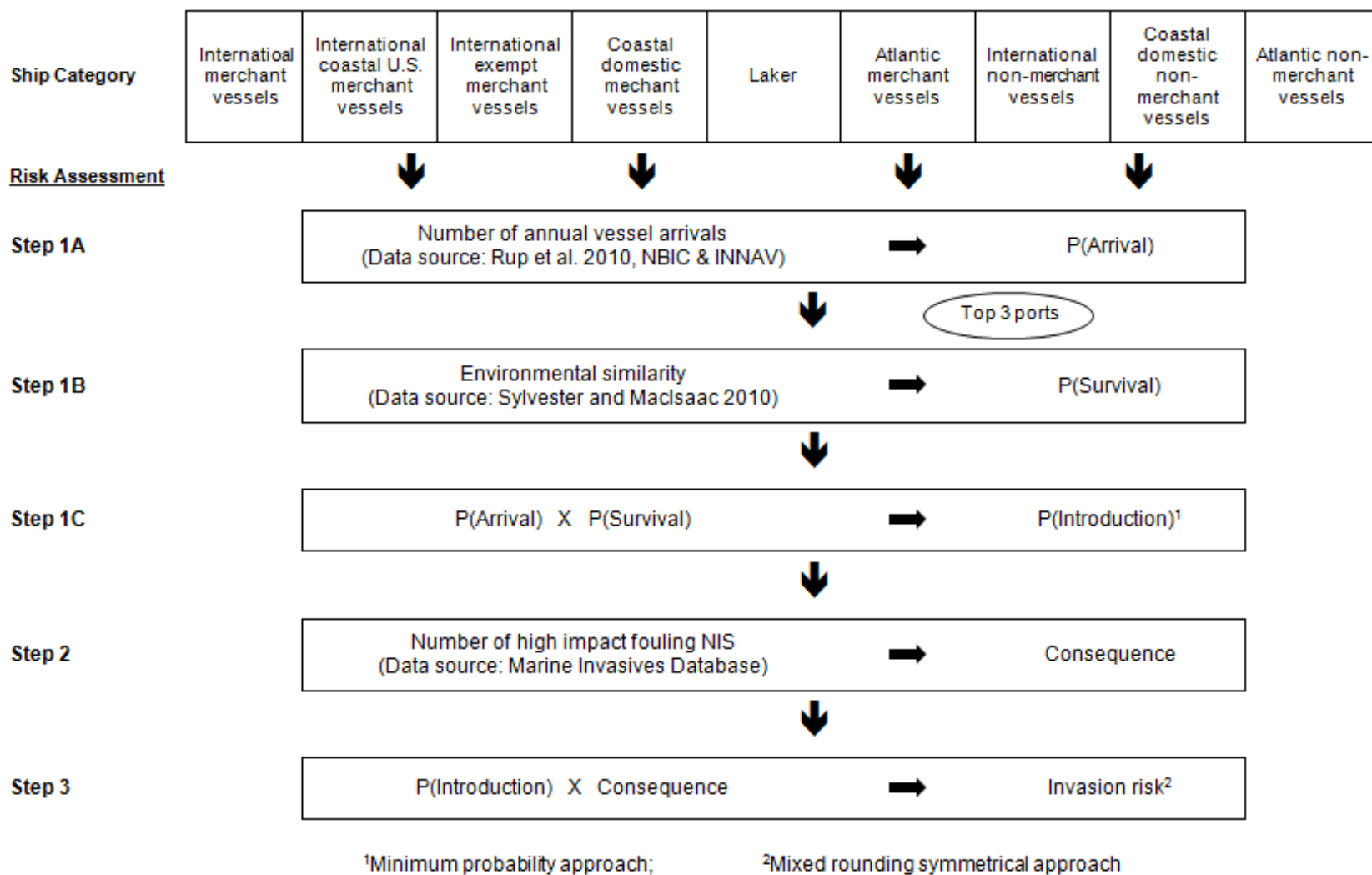
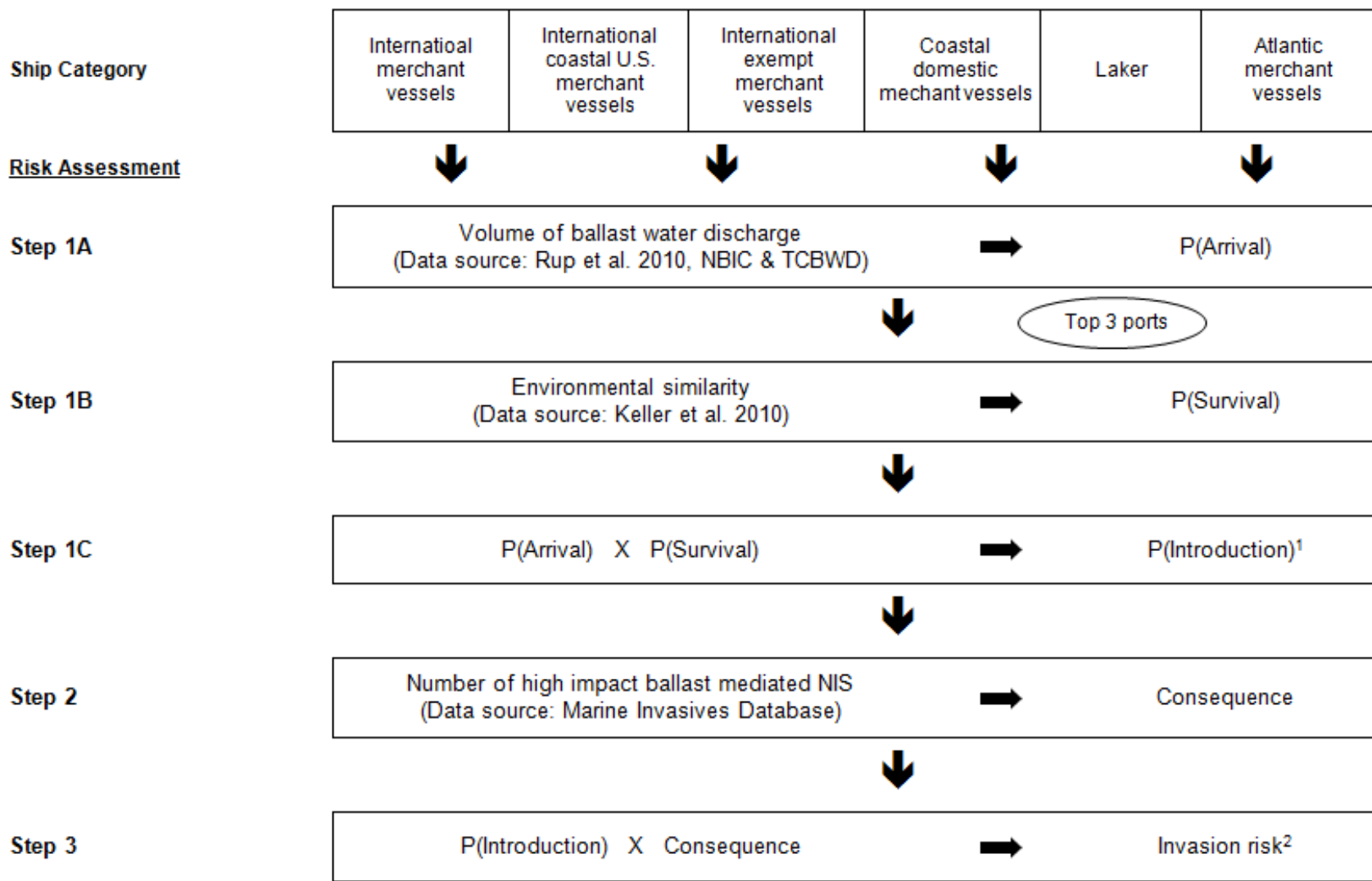


Figure 3. Flow chart illustrating steps for risk assessment of hull fouling-mediated invasions. A filtering approach was used after Step 1A to prioritize the risk assessment to the top three Atlantic ports for each ship category.



<sup>1</sup>Minimum probability approach;

<sup>2</sup>Mixed rounding symmetrical approach

Figure 4. Flow chart illustrating steps for risk assessment of ballast-mediated invasions. A filtering approach was used after Step 1A to prioritize the risk assessment to the top three Atlantic ports for each ship category.

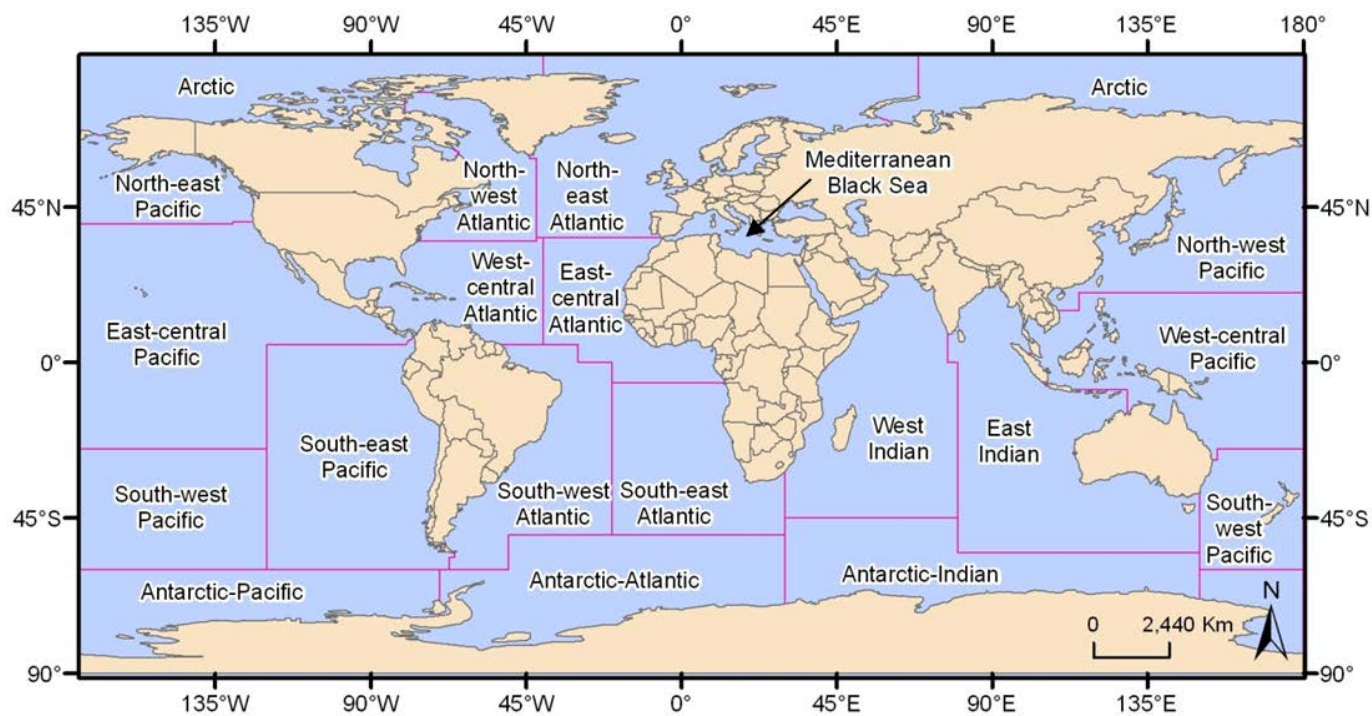


Figure 5. Map illustrating regions of ballast water origin, following the ocean areas designated by the Food and Agriculture Organization of the United Nations (FAO).

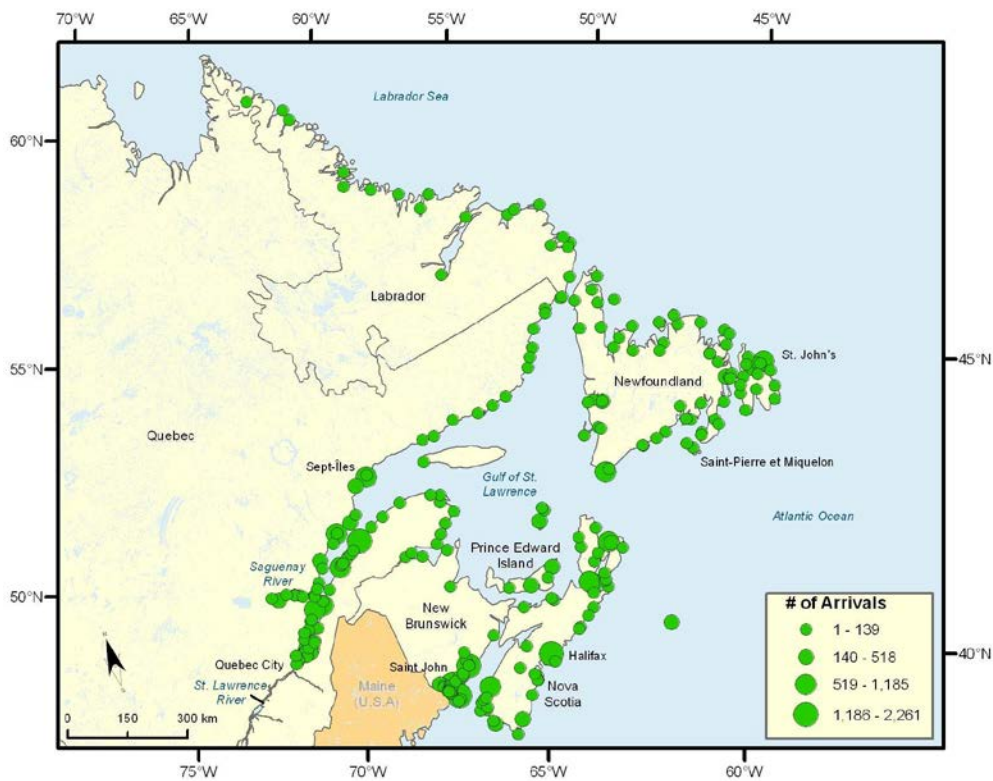


Figure 6. Map illustrating the spatial distribution of vessel arrivals in the Atlantic region.

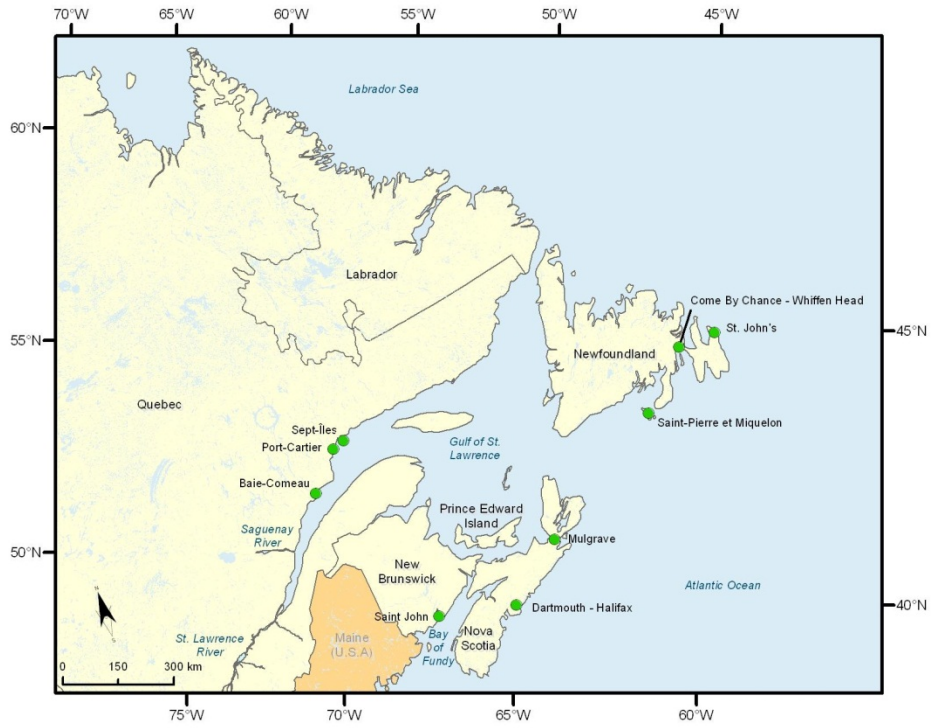


Figure 7. Map illustrating locations of all top Atlantic ports based on the number of vessel arrivals for all merchant vessel categories.

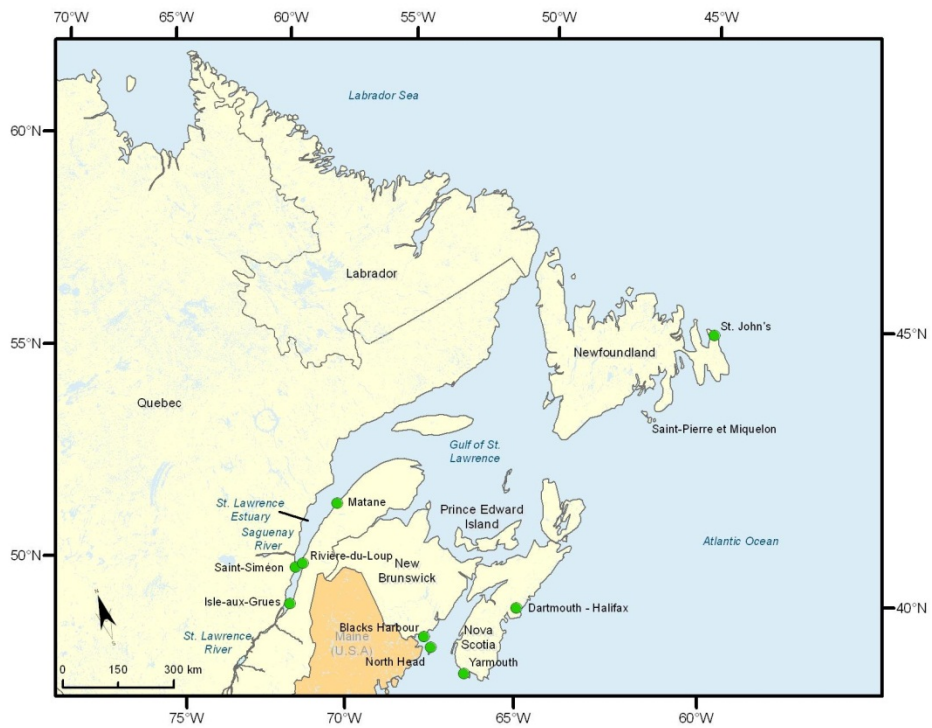


Figure 8. Map illustrating locations of all top Atlantic ports based on the number of vessel arrivals for all non-merchant vessel categories.

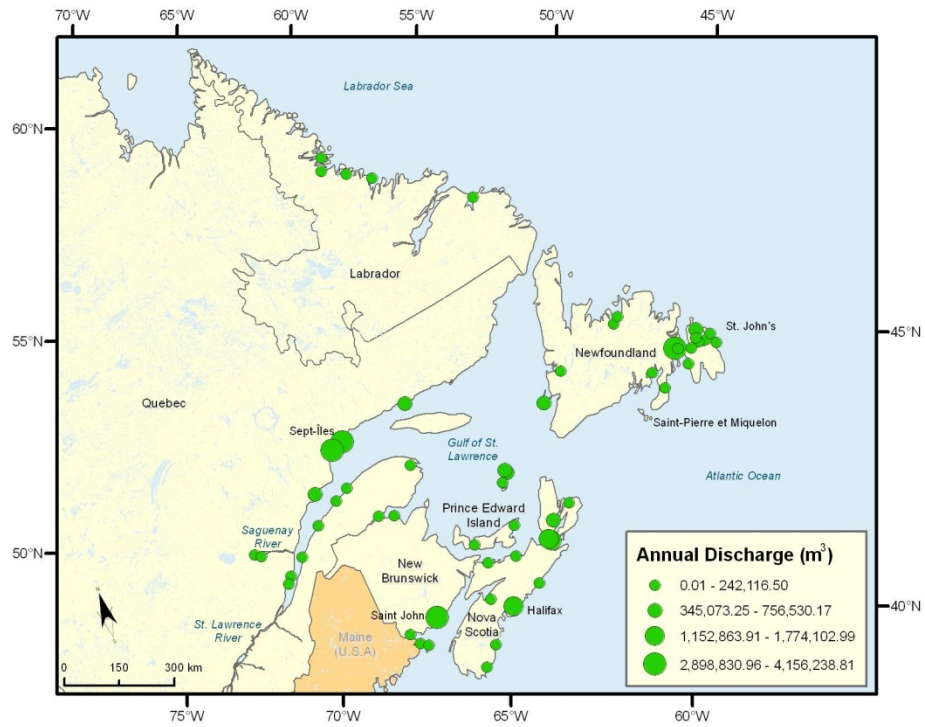
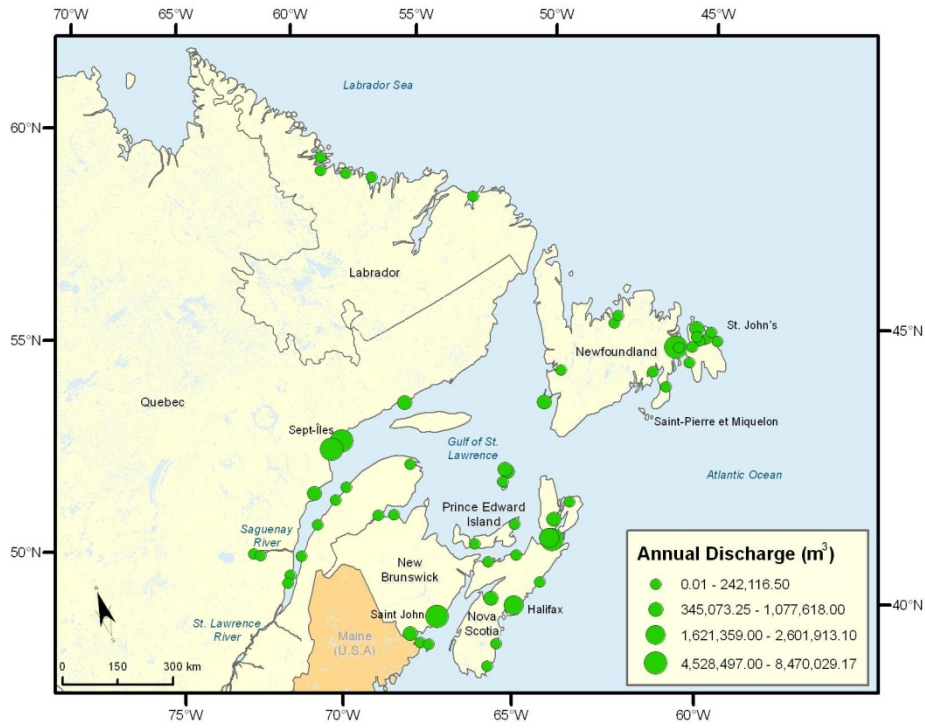


Figure 9. Map illustrating spatial patterns of (upper panel) annual ballast water discharges and (lower panel) combination of direct and foreign exchanged (with correction factor applied) ballast water discharges in the Atlantic region.





Figure 10. Map illustrating locations of all top Atlantic ports based on the annual volume of ballast water discharged by all merchant vessels; correction factors were applied to account for reduction in propagule supply due to ballast water exchange.

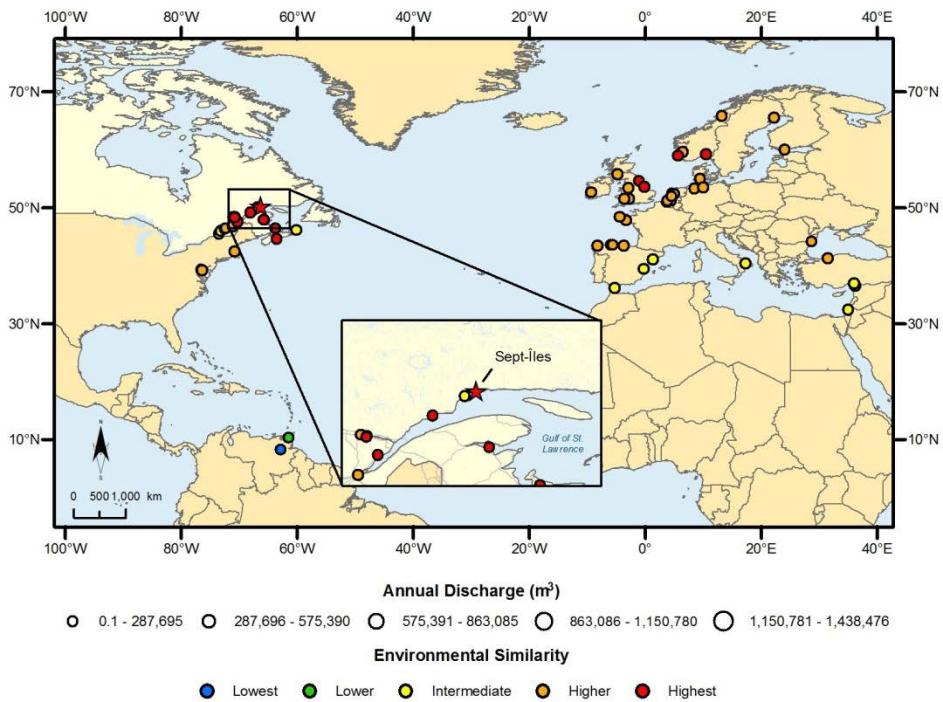


Figure 11. Map illustrating propagule supply and environmental similarity between Sept-Îles and source ports connected via international transoceanic merchant vessel ballast water discharges.

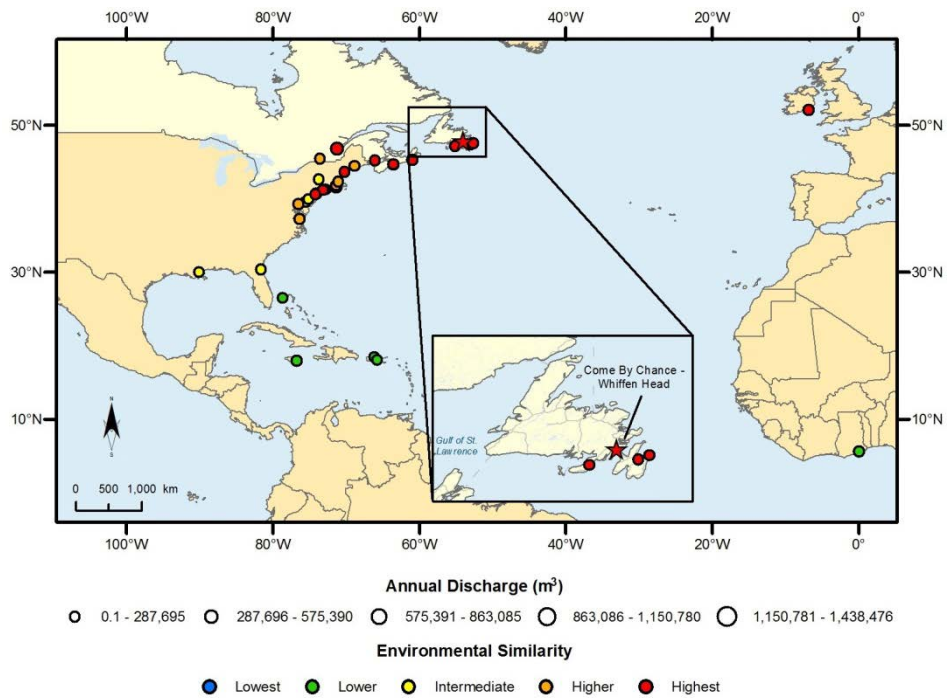


Figure 12. Map illustrating propagule supply and environmental similarity between Come By Chance-Whiffen Head and source ports connected via international transoceanic merchant vessel ballast water discharges.

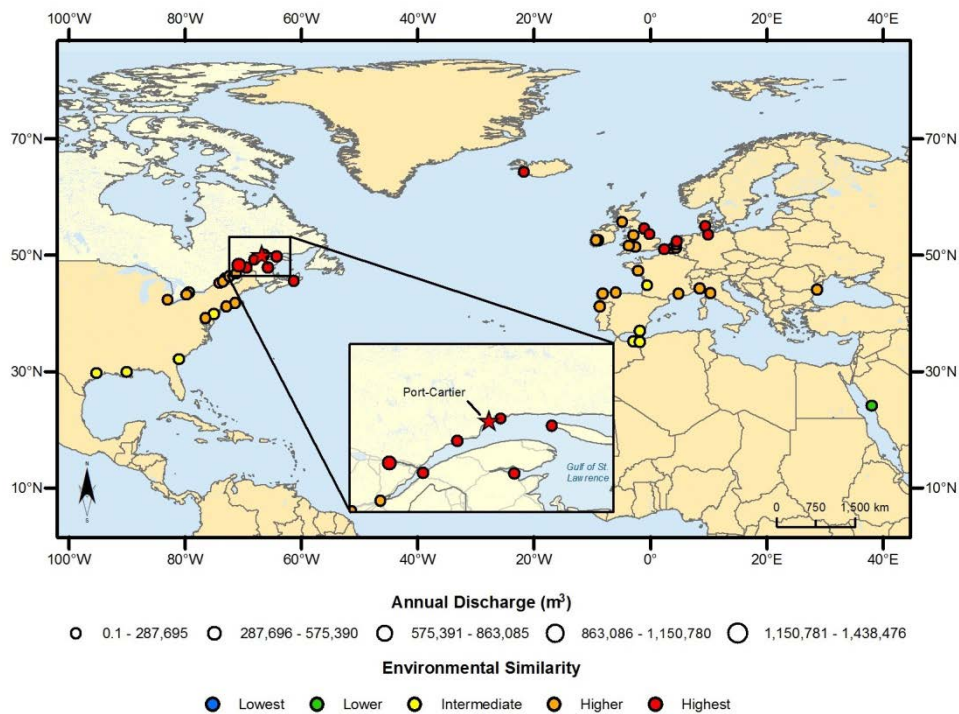


Figure 13. Map illustrating propagule supply and environmental similarity between Port-Cartier and source ports connected via international transoceanic merchant vessel ballast water discharges.

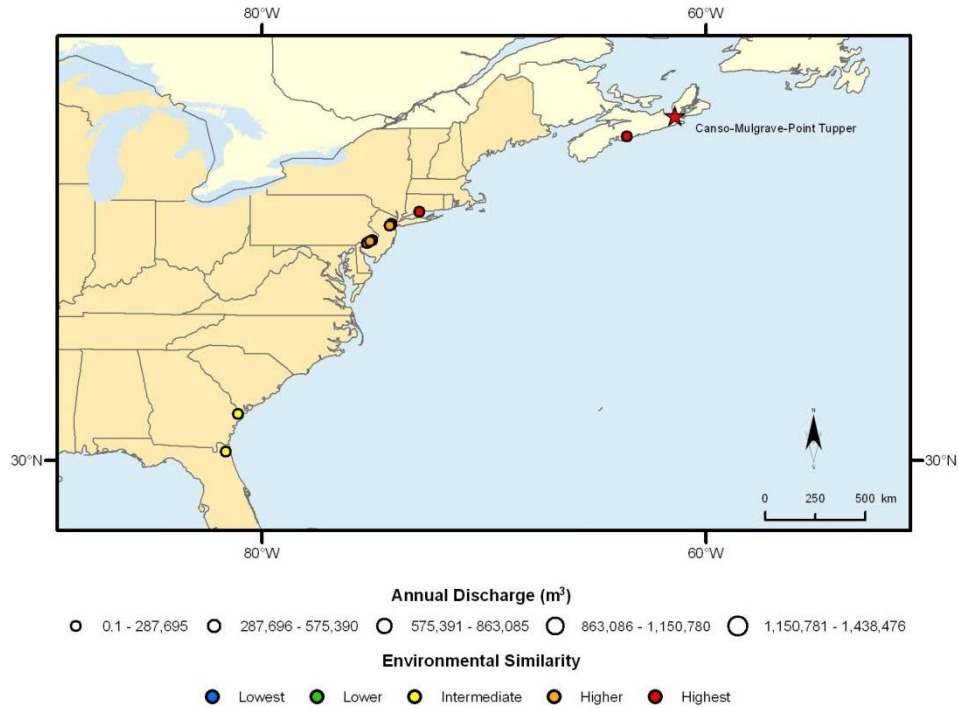


Figure 14. Map illustrating propagule supply and environmental similarity between Canso-Mulgrave-Point Tupper and source ports connected via international coastal U.S. merchant vessel ballast water discharges.

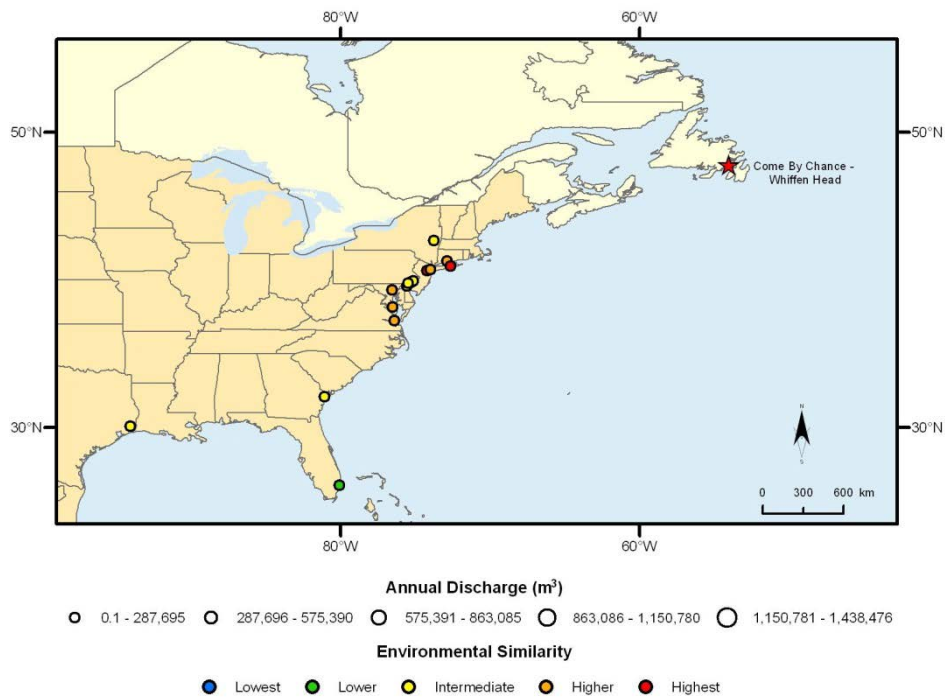


Figure 15. Map illustrating propagule supply and environmental similarity between Come By Chance-Whiffen Head and source ports connected via international coastal U.S. merchant vessel ballast water discharges.

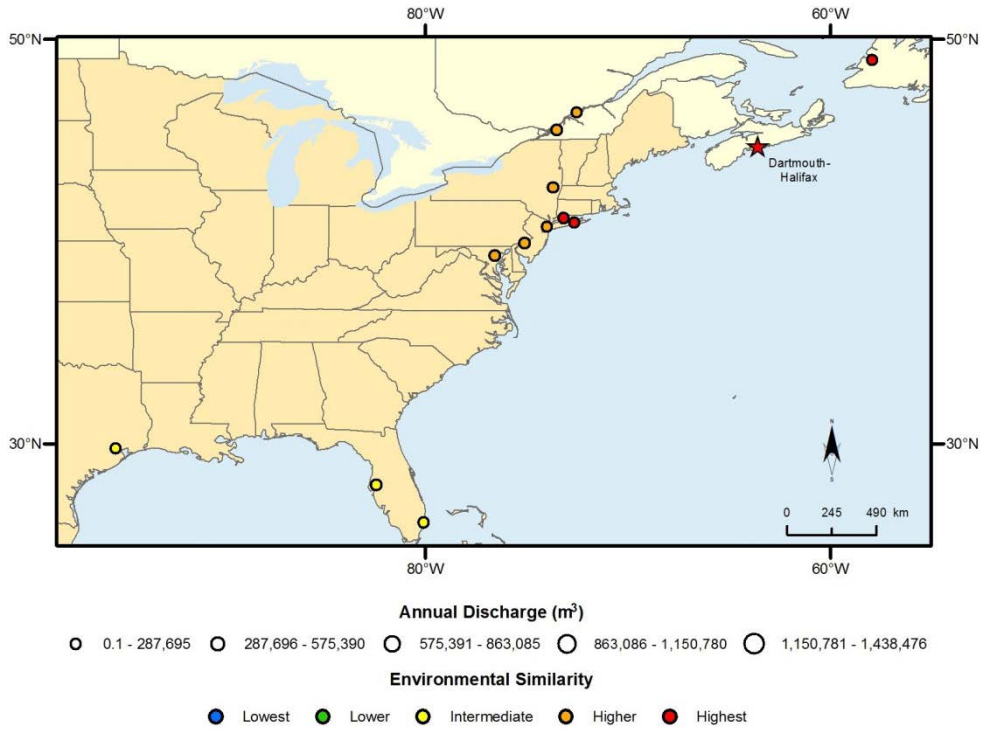


Figure 16. Map illustrating propagule supply and environmental similarity between Dartmouth-Halifax and source ports connected via international coastal U.S. merchant vessel ballast water discharges.

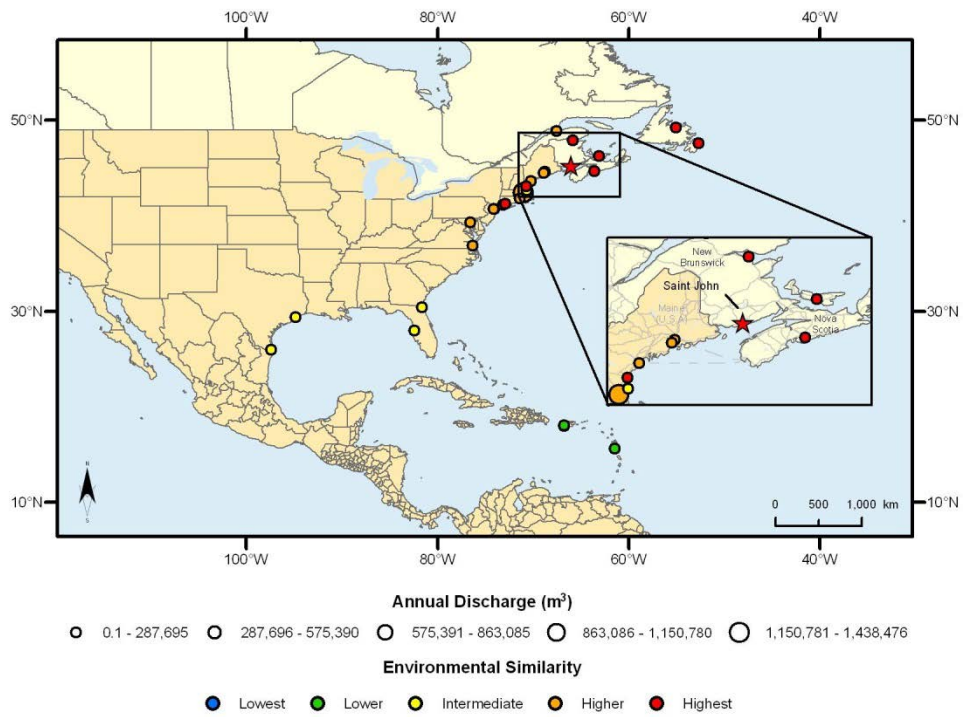


Figure 17. Map illustrating propagule supply and environmental similarity between Saint John and source ports connected via international exempt merchant vessel ballast water discharges.

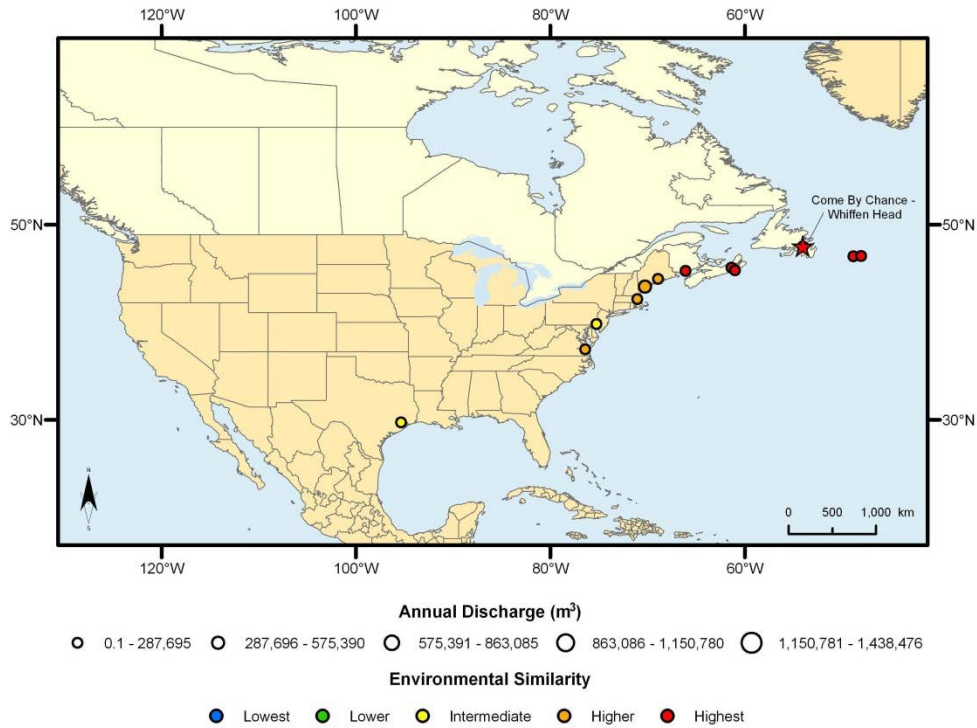


Figure 18. Map illustrating propagule supply and environmental similarity between Come By Chance-Whiffen Head and source ports connected via international exempt merchant vessel ballast water discharges.

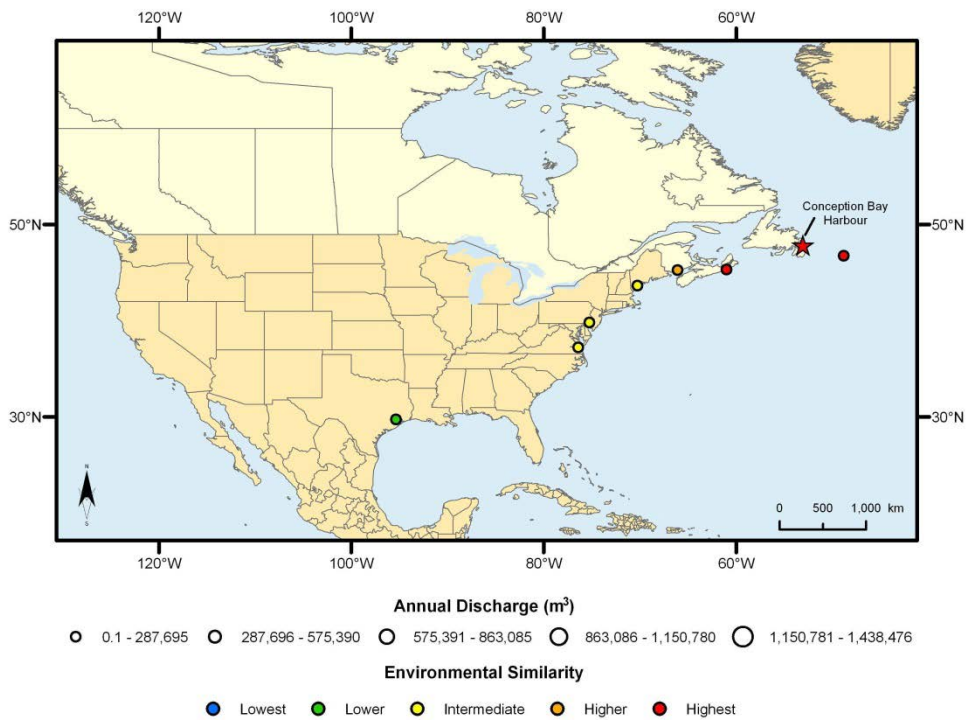


Figure 19. Map illustrating propagule supply and environmental similarity between Conception Bay and source ports connected via international exempt merchant vessel ballast water discharges.

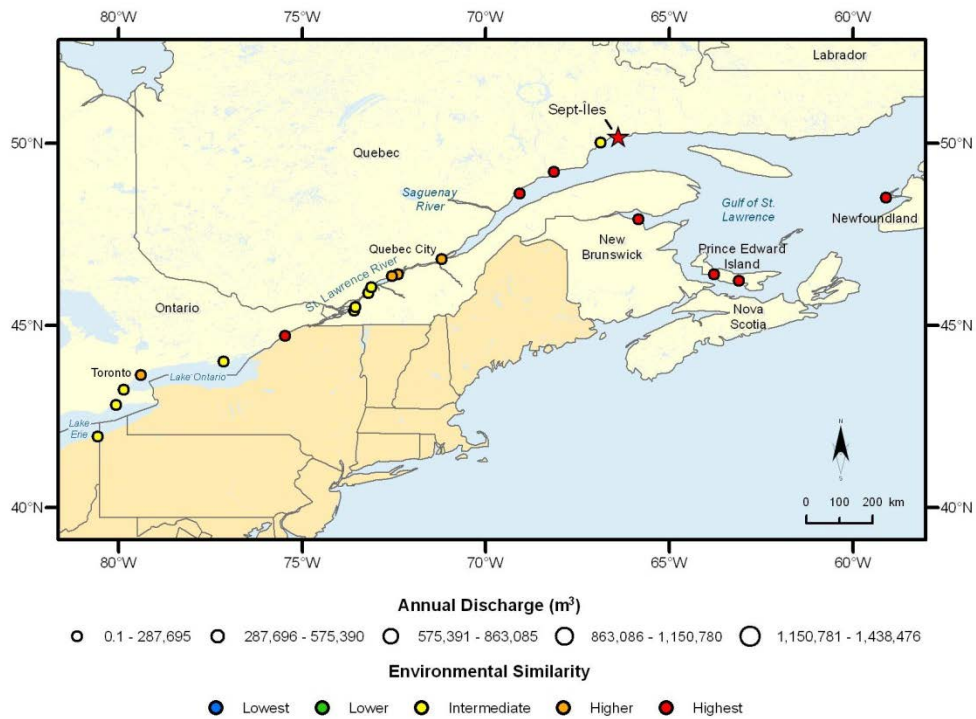


Figure 20. Map illustrating propagule supply and environmental similarity between Sept-Îles and source ports connected via coastal domestic merchant vessel ballast water discharges.

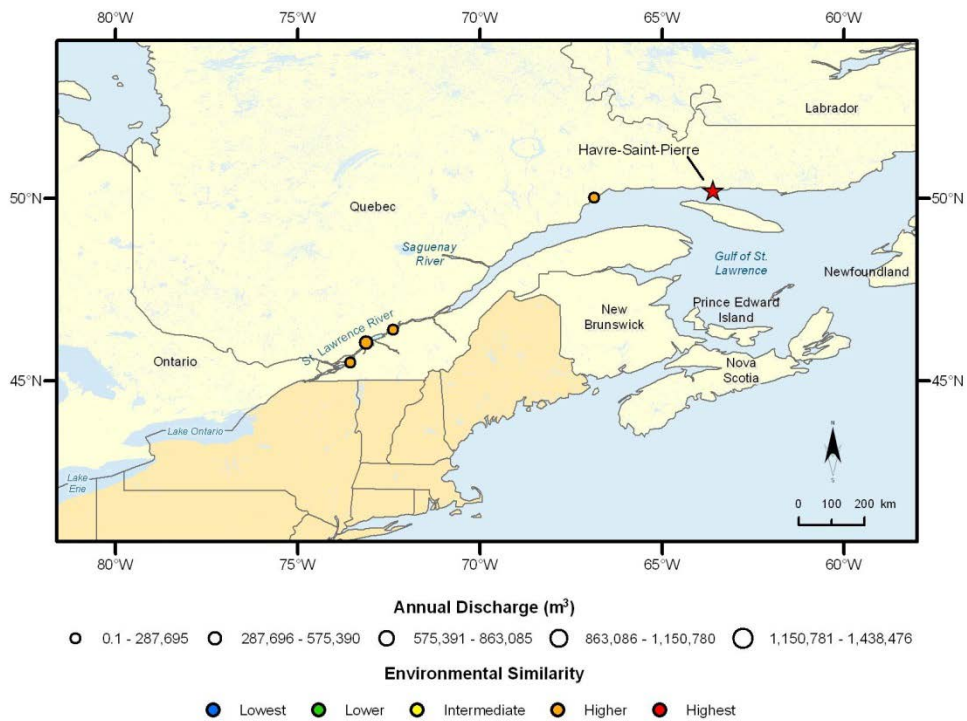


Figure 21. Map illustrating propagule supply and environmental similarity between Havre-Saint-Pierre and connected source ports via coastal domestic merchant vessel ballast water discharges.

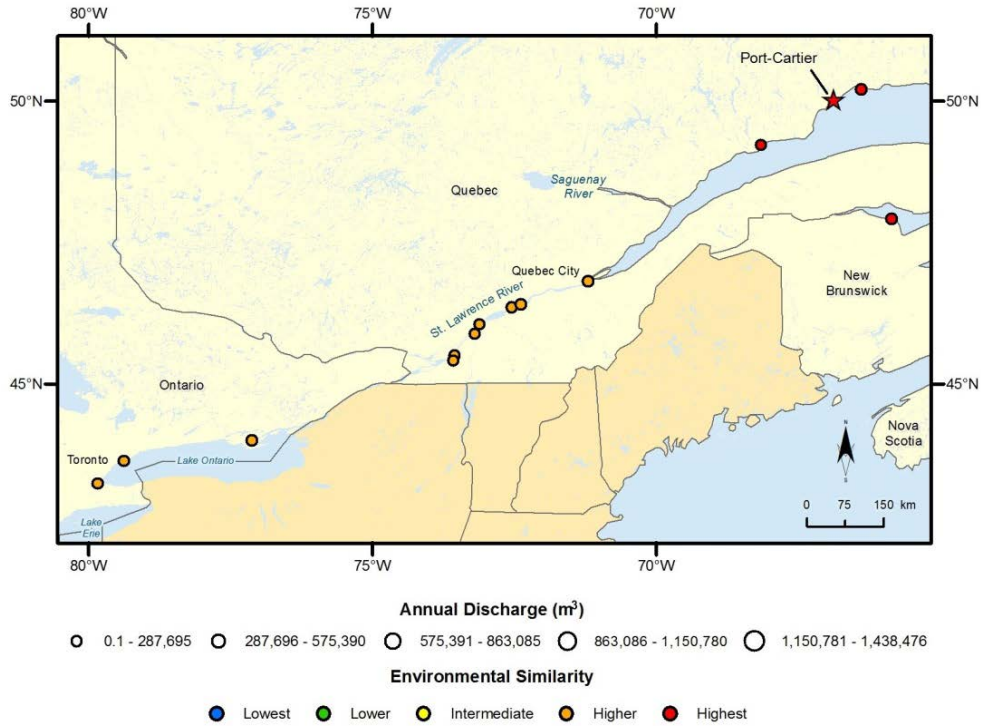


Figure 22. Map illustrating propagule supply and environmental similarity between Port-Cartier and connected source ports via coastal domestic merchant vessel ballast water discharges.

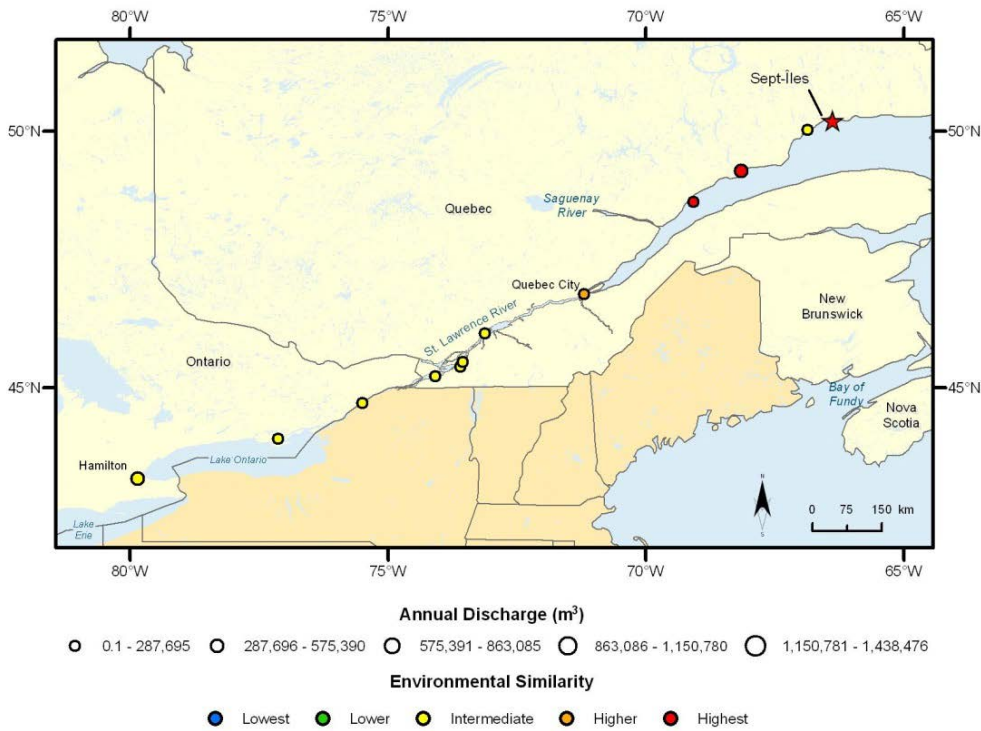


Figure 23. Map illustrating propagule supply and environmental similarity between Sept-Îles and connected source ports via Laker merchant vessel ballast water discharges.

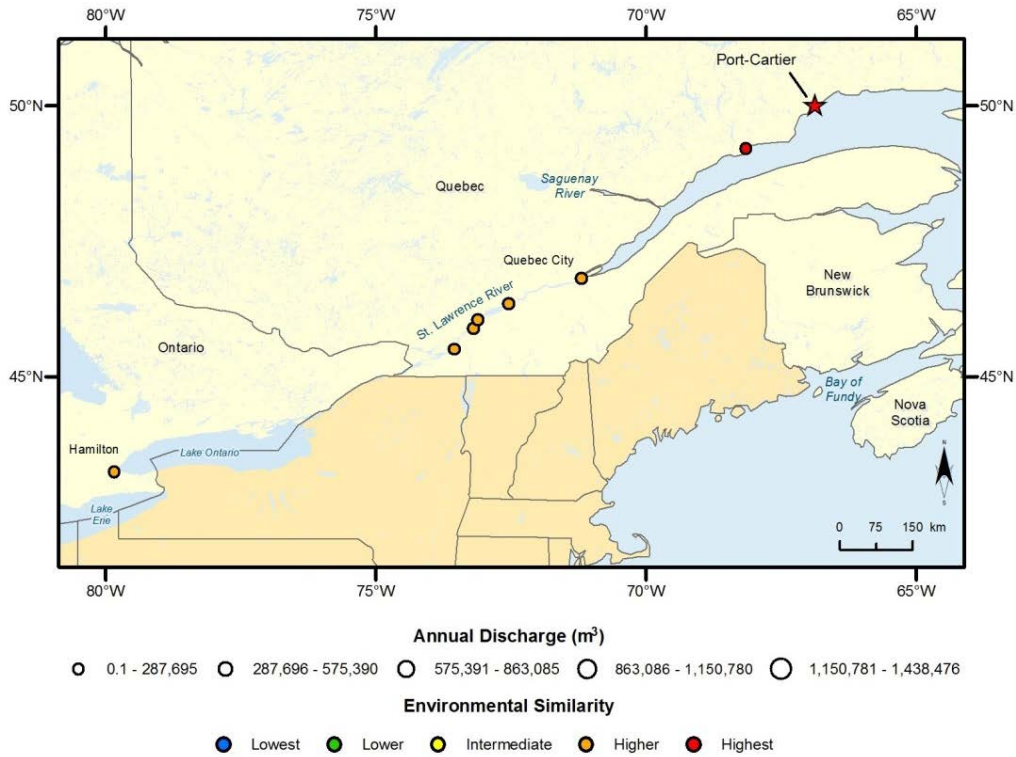


Figure 24. Map illustrating propagule supply and environmental similarity between Port-Cartier and connected source ports via Laker merchant vessel ballast water discharges.

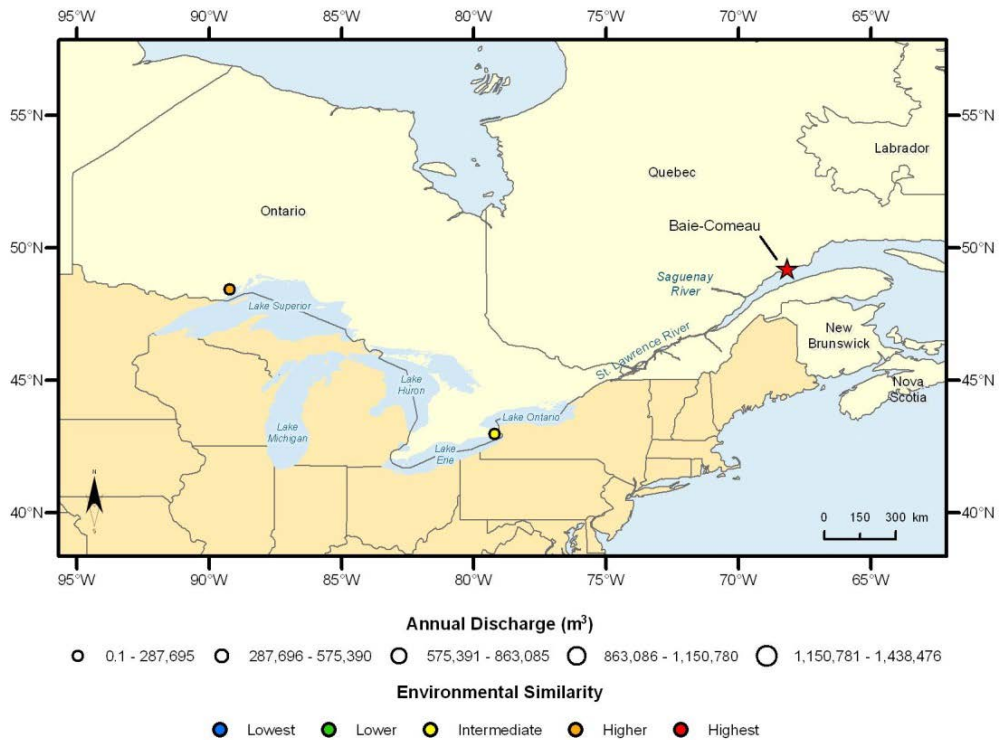


Figure 25. Map illustrating propagule supply and environmental similarity between Baie-Comeau and connected source ports via Laker merchant vessel ballast water discharges.



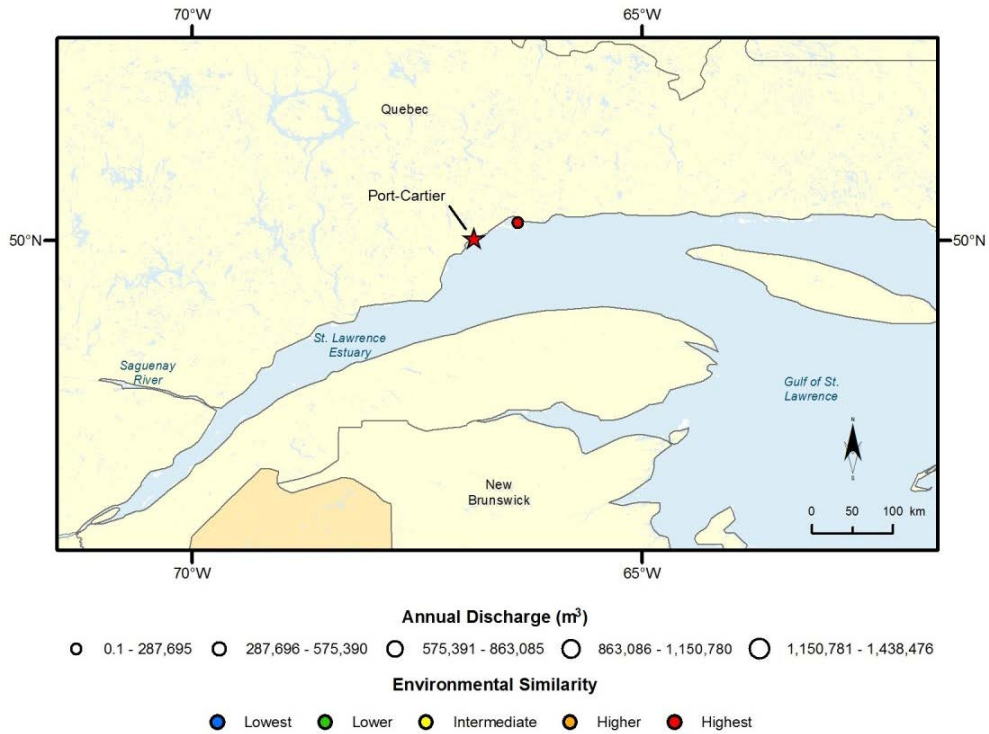


Figure 26. Map illustrating propagule supply and environmental similarity between Port-Cartier and connected source ports via Atlantic merchant vessel ballast water discharges.

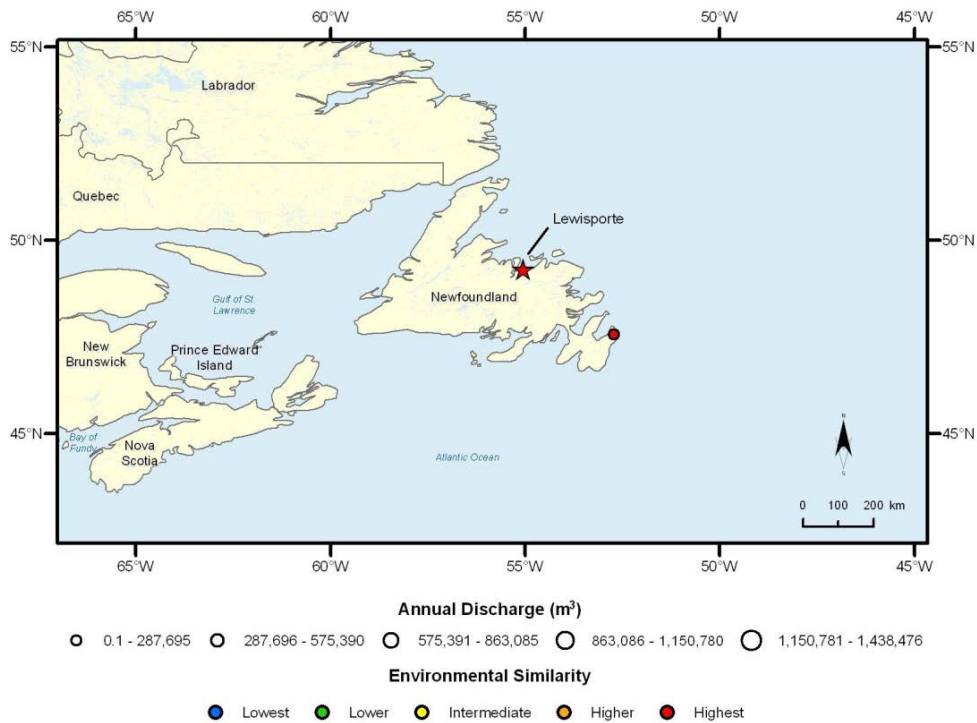


Figure 27. Map illustrating propagule supply and environmental similarity between Lewisporte and connected source ports via Atlantic merchant vessel ballast water discharges.

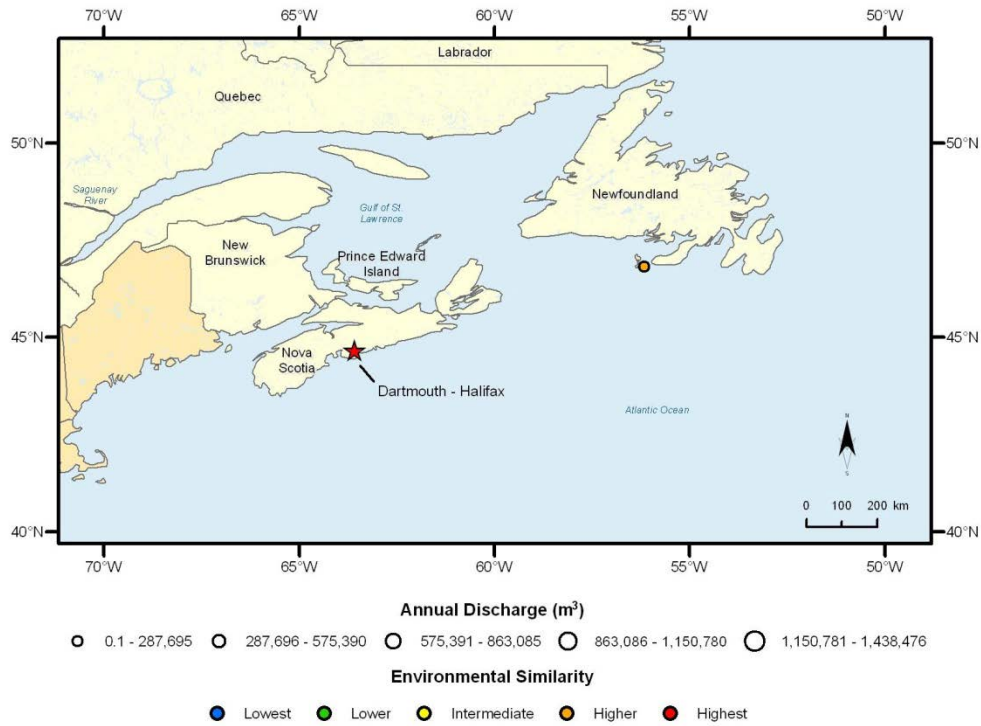


Figure 28. Map illustrating propagule supply and environmental similarity between Dartmouth-Halifax and connected source ports via Atlantic merchant vessel ballast water discharges.

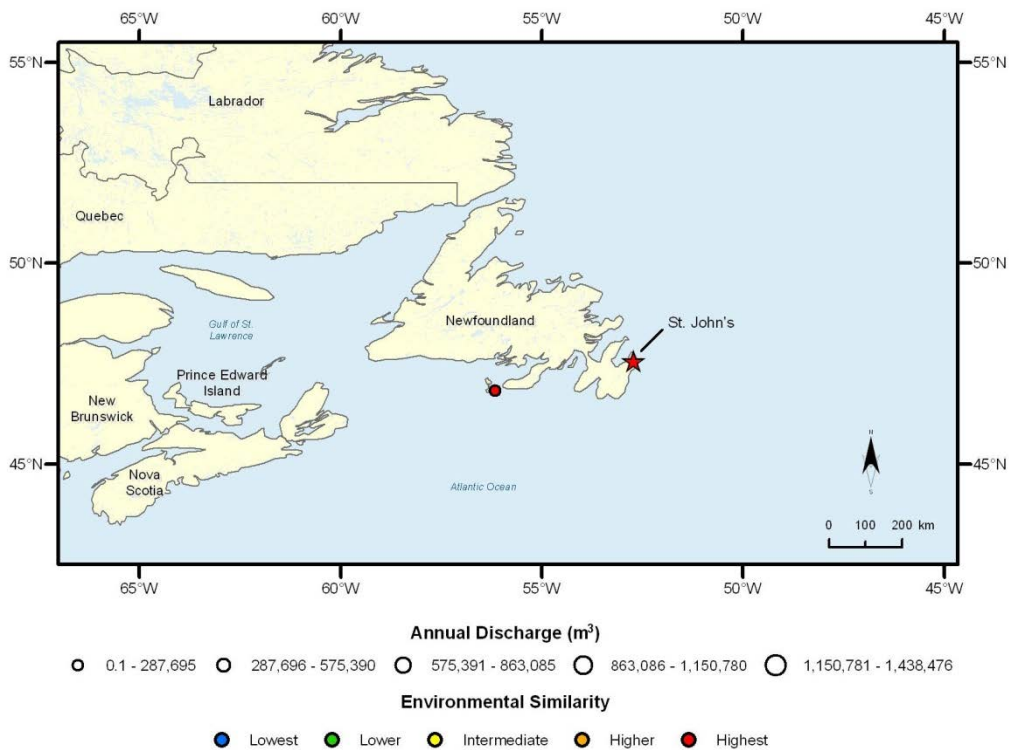


Figure 29. Map illustrating propagule supply and environmental similarity between St. John's and connected source ports via Atlantic merchant vessel ballast water discharges.

## APPENDICES

*Appendix A. List of global ports that have highest environmental similarity to Sept-Îles. NIS originating from these ports have the highest potential for survival if introduced at Sept-Îles.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Baia dos Tigres	AGO	-16.5167	11.7667	0.53
Tombwa	AGO	-15.7667	11.9167	0.77
Namibe	AGO	-15.1647	12.1578	0.79
Porto Saco	AGO	-15.1333	12.1333	0.79
Lobito	AGO	-12.3536	13.5436	1.16
Cuio	AGO	-12.9833	12.9833	1.17
Benguela	AGO	-12.5833	13.4000	1.21
Sumbe	AGO	-11.2000	13.8333	1.29
Durres	ALB	41.3131	19.4511	0.38
Vlore	ALB	40.4556	19.4850	0.74
Sarande	ALB	39.8719	20.0003	0.85
Shengjin	ALB	41.8150	19.5872	0.94
San Antonio Este	ARG	-40.8169	-64.7519	0.73
Puerto Rosales	ARG	-38.9167	-62.0667	0.75
Puerto Belgrano	ARG	-38.9000	-62.1000	0.75
Punta Colorada	ARG	-41.7000	-65.0333	0.80
Necochea	ARG	-38.5753	-58.7214	0.85
Puerto Madryn	ARG	-42.7386	-65.0472	0.89
Mar del Plata	ARG	-38.0331	-57.5447	0.91
Ibicuy	ARG	-33.7428	-59.1681	0.96
Buenos Aires	ARG	-34.5903	-58.3775	1.00
Escobar	ARG	-34.3500	-58.7667	1.01
San Fernando(ARG)	ARG	-34.4500	-58.5333	1.04
Tigre	ARG	-34.4333	-58.5500	1.04
Caleta Cordova	ARG	-45.7167	-67.3500	1.04
Puerto Galvan	ARG	-38.7833	-62.3000	1.09
Campana	ARG	-34.1567	-58.9664	1.11
Zarate	ARG	-34.0911	-59.0206	1.11
Atucha	ARG	-33.9569	-59.2511	1.12
Lima(ARG)	ARG	-33.9767	-59.1872	1.12
Camarones	ARG	-44.4500	-65.7000	1.15
Ensenada(ARG)	ARG	-34.8667	-57.9000	1.20
La Plata	ARG	-34.8725	-57.9069	1.20
Amsterdam Is.	ATF	-37.8500	77.5333	0.92
St. Paul Is.(ATF)	ATF	-38.7167	77.5167	1.02
Whyalla	AUS	-33.0375	137.5869	0.10
Busselton	AUS	-33.6333	115.3333	0.23
Jervis Bay	AUS	-35.1000	150.7833	0.24
Esperance	AUS	-33.8736	121.8919	0.26
Port Lincoln	AUS	-34.7244	135.8692	0.26
Thevenard	AUS	-32.1469	133.6467	0.30
Kurnell	AUS	-34.0000	151.2333	0.34
Port Jackson	AUS	-33.8333	151.2833	0.34
Catherine Hill Bay	AUS	-33.1667	151.6333	0.34
Port Kembla	AUS	-34.4650	150.8892	0.35
Ardrossan(AUS)	AUS	-34.4344	137.9119	0.38
Albany(AUS)	AUS	-35.0278	117.8956	0.43

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bunbury	AUS	-33.3358	115.6503	0.44
Kwinana	AUS	-32.2167	115.7500	0.44
Wallaroo	AUS	-33.9294	137.6247	0.44
Fremantle	AUS	-32.0592	115.7508	0.48
Port Pirie	AUS	-33.1686	138.0108	0.48
Port Stanvac	AUS	-35.1167	138.4667	0.51
Port Vincent	AUS	-34.9500	137.8667	0.53
Klein Point	AUS	-34.9172	137.7928	0.53
Port Giles	AUS	-35.0225	137.7603	0.53
Edithburgh	AUS	-35.0833	137.7500	0.53
Port Bonython	AUS	-32.9889	137.7672	0.54
Lord Howe Is.	AUS	-31.5333	159.0833	0.57
Rapid Bay	AUS	-35.5167	138.1833	0.57
Ballast Head	AUS	-35.7667	137.8000	0.65
Eden	AUS	-37.0672	149.9064	0.65
Geraldton	AUS	-28.7786	114.5897	0.74
Portland(AUS)	AUS	-38.3506	141.6058	0.75
Useless Loop	AUS	-26.1103	113.3944	0.82
Coffs Hbr.	AUS	-30.3000	153.1500	0.85
Clarence River	AUS	-29.4167	153.3833	0.88
Thornlands	AUS	-27.5333	153.2667	0.90
Cape Cuvier	AUS	-24.2261	113.3939	0.94
Mackay	AUS	-21.1078	149.2175	0.94
King Is.	AUS	-39.8333	144.0000	0.98
Bridport(AUS)	AUS	-40.9833	147.3667	1.00
Carnarvon	AUS	-24.8833	113.6667	1.08
Adelaide	AUS	-34.8503	138.5669	1.09
Devonport(AUS)	AUS	-41.1758	146.3511	1.10
Port Alma	AUS	-23.5828	150.8597	1.11
Grassy	AUS	-40.0667	144.1500	1.12
Stanley(AUS)	AUS	-40.7667	145.3000	1.14
Urangan	AUS	-25.2833	152.9167	1.14
Burnie	AUS	-41.0575	145.9050	1.15
Hay Point	AUS	-21.2875	149.2847	1.18
Port Latta	AUS	-40.8536	145.3872	1.19
Port Augusta	AUS	-32.5000	137.7833	1.25
Ulverstone	AUS	-41.2333	146.1667	1.28
Port Welshpool	AUS	-38.7000	146.4500	1.29
Barry Beach	AUS	-38.7167	146.3833	1.29
Hamilton(BMU)	BMU	32.3000	-64.7833	0.97
Freeport(BMU)	BMU	32.3167	-64.8333	0.97
St. George's(BMU)	BMU	32.3833	-64.6667	0.98
Porto Laguna	BRA	-28.5000	-48.7500	0.50
Imbituba	BRA	-28.2336	-48.6528	0.50
Mangaratiba	BRA	-22.9000	-44.0500	0.59
Tramandai	BRA	-30.0000	-50.0833	0.61
Porto Belo	BRA	-27.1667	-48.5500	0.66
Ilhabela	BRA	-23.7667	-45.3500	0.69
Navegantes	BRA	-26.8833	-48.6500	0.73
Itajai	BRA	-26.8994	-48.6706	0.73
Buzios	BRA	-22.7500	-41.9000	0.78

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Forno	BRA	-23.0167	-42.0000	0.80
Sao Francisco do Sul	BRA	-26.2333	-48.6333	0.82
Angra dos Reis	BRA	-23.0061	-44.3131	1.06
Sao Sebastiao	BRA	-23.8000	-45.3833	1.07
Gebig	BRA	-23.0500	-44.2333	1.09
Macaé	BRA	-22.3500	-41.8000	1.09
Parati	BRA	-23.2167	-44.7167	1.13
Arraial do Cabo	BRA	-22.9667	-42.0333	1.22
Ponta do Ubu	BRA	-20.7833	-40.5833	1.27
Port Cartier	CAN	50.0167	-66.8667	0.70
Mejillones	CHL	-23.1000	-70.4667	0.30
Taltal	CHL	-25.4000	-70.4833	0.40
Antofagasta	CHL	-23.6333	-70.4333	0.40
Caleta Coloso	CHL	-23.7500	-70.4667	0.41
Caldera(CHL)	CHL	-27.0667	-70.8833	0.44
Arica	CHL	-18.4833	-70.3333	0.44
Tocopilla	CHL	-22.0833	-70.2333	0.45
Caleta Barquito	CHL	-26.3500	-70.6500	0.45
Chanaral	CHL	-26.3500	-70.6333	0.45
Caleta Patillos	CHL	-20.7500	-70.2000	0.47
Caleta Patache	CHL	-20.8000	-70.2000	0.47
Iquique	CHL	-20.2000	-70.1667	0.47
Caleta Michilla	CHL	-22.7333	-70.2667	0.50
Huasco	CHL	-28.4500	-71.2333	0.52
Cruz Grande	CHL	-29.4500	-71.3333	0.67
San Antonio(CHL)	CHL	-33.6000	-71.6167	0.74
Los Vilos	CHL	-31.9167	-71.5000	0.76
Hanga Roa	CHL	-27.1500	-109.4167	0.81
Puerto Papudo	CHL	-32.5000	-71.4500	0.86
Puerto Ventanas	CHL	-32.7500	-71.5000	0.88
Quintero	CHL	-32.7667	-71.5000	0.88
Lota	CHL	-37.1000	-73.1667	1.04
Coronel	CHL	-37.0333	-73.1667	1.04
Lirquen	CHL	-36.7167	-72.9833	1.10
Penco	CHL	-36.7167	-73.0000	1.13
Valparaiso	CHL	-33.0167	-71.6333	1.24
Las Salinas	CHL	-33.0167	-71.5667	1.24
Coquimbo	CHL	-29.9500	-71.3500	1.26
Guayacan	CHL	-29.9667	-71.3667	1.26
Zhangzhou	CHN	24.4167	118.0500	0.84
Xiamen	CHN	24.4500	118.0667	0.84
Dongshan	CHN	23.7500	117.5167	0.88
Matsu Is.	CHN	26.1500	119.9333	0.89
Songxia	CHN	25.6833	119.5833	0.89
Shipu	CHN	29.1833	121.8500	1.00
Jinshan	CHN	30.7167	121.3167	1.02
Majishan	CHN	30.6833	122.4167	1.03
Sanbaimen	CHN	23.5333	117.0833	1.04
Raoping	CHN	23.6500	117.0167	1.04
Shantou	CHN	23.3333	116.7500	1.07
Shanwei	CHN	22.8000	115.3333	1.10

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Xiuyu	CHN	25.2167	118.9833	1.11
Meizhou	CHN	25.1833	119.0000	1.11
Donglian	CHN	22.7333	114.6167	1.12
Yantian	CHN	22.5900	114.2683	1.13
Guangdong Term.	CHN	22.5667	114.4333	1.15
Sha Tin	CHN	22.3667	114.1667	1.16
Nanhui	CHN	31.0500	121.7500	1.17
Weitou	CHN	24.5333	118.5667	1.17
Shanghai	CHN	31.2500	121.5000	1.18
Luojing	CHN	31.4500	121.3000	1.20
Mawan	CHN	22.4833	113.8667	1.20
Shekou	CHN	22.4833	113.9000	1.20
Aotou	CHN	22.7167	114.5167	1.20
Mabianzhou	CHN	22.6667	114.6500	1.20
Huizhou	CHN	22.7000	114.5667	1.20
Chiwan	CHN	22.4667	113.8833	1.21
Jiuzhou	CHN	22.2333	113.5833	1.21
Zhuhai	CHN	22.2833	113.5833	1.21
Chongming	CHN	31.6167	121.3667	1.23
Lasawei	CHN	22.1333	113.8167	1.24
Macau	CHN	22.2000	113.5500	1.25
Hong Kong	CHN	22.3000	114.1667	1.26
Beilun	CHN	29.9333	121.8833	1.29
Arguineguin	CNI	27.7500	-15.6667	0.25
Los Cristianos	CNI	28.0500	-16.7167	0.29
Arrecife	CNI	28.9500	-13.5500	0.35
Puerto del Rosario	CNI	28.5000	-13.8500	0.37
Gran Tarajal	CNI	28.2000	-14.0167	0.38
Morrojable	CNI	28.0333	-14.3333	0.38
Las Palmas	CNI	28.1331	-15.4319	0.40
Santa Cruz de Tenerife	CNI	28.4833	-16.2333	0.41
La Salineta	CNI	27.9667	-15.3667	0.42
Palma(Canary Is)	CNI	28.6833	-17.7667	0.45
Santa Cruz de la Palma	CNI	28.6667	-17.7500	0.45
Gomera	CNI	28.1000	-17.1000	0.47
San Sebastian(CNI)	CNI	28.0833	-17.1167	0.47
La Estaca	CNI	27.7833	-17.9000	0.48
Hierro	CNI	27.7500	-18.0000	0.48
Pedra de Lume	CPV	16.7500	-22.9000	1.06
Palmeira	CPV	16.7500	-23.0000	1.06
Santa Maria(CPV)	CPV	16.5833	-22.9167	1.08
Ponta do Sol	CPV	17.2000	-25.1000	1.11
Porto Novo(CPV)	CPV	17.0167	-25.0667	1.11
St. Nicholas(CPV)	CPV	16.6333	-24.2833	1.12
Porto de Sal-Rei	CPV	16.1667	-22.9500	1.12
Mindelo	CPV	16.8833	-25.0000	1.13
St. Vincent(CPV)	CPV	16.9000	-25.0000	1.13
Maio	CPV	15.2000	-23.2500	1.20
Praia(CPV)	CPV	14.9000	-23.5167	1.23
Fogo	CPV	14.8667	-24.4833	1.26
Brava	CPV	14.8167	-24.6833	1.27

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Paphos	CYP	34.7500	32.4167	0.63
Latchi	CYP	35.0333	32.4000	0.70
Vassiliko Bay	CYP	34.7000	33.3333	0.72
Limassol	CYP	34.6542	33.0103	0.73
Akrotiri	CYP	34.5667	33.0333	0.73
Larnaca	CYP	34.9167	33.6333	0.73
Xeros Pier	CYP	35.1333	32.8333	0.74
Karavostassi	CYP	35.1333	32.8167	0.74
Dhekelia	CYP	34.9833	33.7333	0.78
Famagusta	CYP	35.1167	33.9333	0.78
Kyrenia	CYP	35.3333	33.3167	0.82
Teknecik	CYP	35.2833	33.4667	0.82
Kalecik	CYP	35.3167	33.9833	0.82
Arzew	DZA	35.8606	-0.3097	0.25
Beni Saf	DZA	35.3008	-1.3906	0.25
Mers el Kebir	DZA	35.7333	-0.7000	0.26
Ghazaouet	DZA	35.0981	-1.8578	0.27
Algiers	DZA	36.7706	3.0531	0.32
Cherchell	DZA	36.6081	2.1931	0.34
Tenes	DZA	36.5186	1.3197	0.35
Djen Djen	DZA	36.8208	5.7700	0.44
Collo	DZA	37.0089	6.5633	0.46
Skikda	DZA	36.8778	6.9439	0.50
Annaba	DZA	36.8997	7.7567	0.53
Bejaia	DZA	36.7217	5.0739	0.56
Dellys	DZA	36.9197	3.8936	0.59
Oran	DZA	35.7058	-0.6422	0.64
Mostaganem	DZA	35.9347	0.0808	0.80
Galapagos Is.	ECU	-0.2667	-91.3667	0.95
La Libertad(ECU)	ECU	-2.2167	-80.9167	0.99
Salinas	ECU	-2.1667	-80.9500	0.99
Manta	ECU	-0.9333	-80.7167	1.27
Sokhna	EGY	29.6833	32.3667	0.62
Ras Sudr Term.	EGY	29.5833	32.6833	0.63
Mersa Matruh	EGY	31.3667	27.2333	0.64
Idku	EGY	31.3500	30.3000	0.71
Abu Kir	EGY	31.3000	30.0667	0.71
El Dekheila	EGY	31.1500	29.8000	0.72
Alexandria(EGY)	EGY	31.1833	29.8667	0.72
El Agami Is.	EGY	31.1500	29.7833	0.72
El Arish	EGY	31.1167	33.8000	0.75
Abu Rudeis	EGY	28.9000	33.1667	0.76
Port Said	EGY	31.2500	32.3000	0.82
Port Fouad	EGY	31.2333	32.3333	0.82
Ras Gharib	EGY	28.3500	33.1167	0.87
Adabiya	EGY	29.8667	32.4667	0.92
Fayid	EGY	30.3333	32.3000	1.01
Nifisha	EGY	30.5667	32.2500	1.02
Ismailia	EGY	30.5833	32.2833	1.02
Abu Sultan	EGY	30.4167	32.3000	1.05
Abu Zenima	EGY	29.0333	33.1167	1.06

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Nuweiba	EGY	28.9667	34.6333	1.08
El Tur	EGY	28.2167	33.6167	1.08
Fanara	EGY	30.2833	32.3500	1.10
Ras Misalla	EGY	29.8167	32.6167	1.13
Sadat	EGY	29.8000	32.4500	1.14
Marakib	EGY	29.9167	32.5667	1.19
Suez	EGY	29.9667	32.5500	1.19
Port Ibrahim	EGY	29.9333	32.5500	1.19
Marsa Gamsa	EGY	27.6500	33.6000	1.20
Safaga	EGY	26.7333	33.9333	1.25
Sharm el Sheikh	EGY	27.8500	34.2833	1.28
Laayoune	ESH	27.0833	-13.4333	0.93
Dakhla	ESH	23.7000	-15.9167	1.16
Motril	ESP	36.7167	-3.5167	0.19
Melilla	ESP	35.2833	-2.9333	0.21
Garrucha	ESP	37.1667	-1.8333	0.37
Carboneras	ESP	37.0000	-1.8833	0.37
Ceuta	ESP	35.8833	-5.3167	0.39
Cartagena(ESP)	ESP	37.5833	-0.9833	0.40
Escombreras	ESP	37.5500	-0.9667	0.40
Algeciras	ESP	36.1167	-5.4333	0.40
San Pedro del Pinatar	ESP	37.8167	-0.7500	0.41
Torre vieja	ESP	37.9667	-0.6833	0.41
Ciudadela	ESP	40.0000	3.8333	0.42
Tarifa	ESP	36.0000	-5.6000	0.43
Santa Pola	ESP	38.2000	-0.5667	0.43
Villanueva y Geltru	ESP	41.2167	1.7333	0.43
Alicante	ESP	38.3333	-0.4833	0.44
Barbate	ESP	36.1667	-5.9833	0.44
Sagunto	ESP	39.6500	-0.2167	0.46
Castellon	ESP	39.9667	0.0167	0.47
Formentera	ESP	38.6500	1.5833	0.48
San Antonio(ESP)	ESP	38.9833	1.3000	0.48
Ibiza	ESP	38.9000	1.4667	0.48
La Canal	ESP	38.8333	1.3833	0.48
La Savina	ESP	38.7333	1.4167	0.48
Valencia	ESP	39.4500	-0.3000	0.50
Gandia	ESP	39.0000	-0.1500	0.50
Cullera	ESP	39.1833	-0.2167	0.50
Denia	ESP	38.8333	0.1167	0.51
Porto Colom	ESP	39.4333	3.2500	0.53
Mahon	ESP	39.8667	4.3000	0.54
Rota	ESP	36.6167	-6.3667	0.55
Cadiz	ESP	36.5000	-6.3333	0.55
Puerto Pollensa	ESP	39.8833	3.0667	0.56
Alcudia	ESP	39.8333	3.1333	0.56
Tarragona	ESP	41.1000	1.2333	0.56
Burriana	ESP	39.8667	-0.0667	0.57
Barcelona	ESP	41.3500	2.1667	0.58
Malaga	ESP	36.7178	-4.4250	0.58
Vinaroz	ESP	40.4667	0.4667	0.60



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Roquetas	ESP	36.7500	-2.6167	0.60
Almeria	ESP	36.8333	-2.5000	0.60
San Carlos de la Rapita	ESP	40.6000	0.6000	0.61
Alcanar	ESP	40.5833	0.5500	0.61
Palma(Maj)	ESP	39.5697	2.6256	0.61
Aguilas	ESP	37.4000	-1.5667	0.61
Ondarroa	ESP	43.3167	-2.4167	0.63
Lequeitio	ESP	43.3667	-2.4833	0.63
Guetaria	ESP	43.3000	-2.2000	0.65
Zumaya	ESP	43.3000	-2.2500	0.65
Vallcarca	ESP	41.2333	1.8667	0.66
San Feliu de Guixols	ESP	41.7667	3.0167	0.68
Palamos	ESP	41.8333	3.1333	0.68
Lage	ESP	43.2167	-9.0000	0.68
Almunecar	ESP	36.7333	-3.6833	0.68
Santander	ESP	43.4667	-3.7667	0.71
Aviles	ESP	43.5833	-5.9333	0.73
Gijon	ESP	43.5500	-5.6667	0.73
Villaviciosa	ESP	43.5333	-5.3833	0.73
Corunna	ESP	43.3833	-8.3667	0.74
Puerto Banus	ESP	36.4833	-4.9333	0.75
Puerto de Vega	ESP	43.5667	-6.6333	0.76
Navia	ESP	43.5500	-6.7167	0.76
Rosas	ESP	42.2500	3.1833	0.77
Tapia de Casariego	ESP	43.5667	-6.9333	0.77
Castropol	ESP	43.5333	-7.0167	0.77
Santona	ESP	43.4667	-3.4667	0.80
Ribadeo	ESP	43.5333	-7.0333	0.81
Burela	ESP	43.6500	-7.3333	0.84
San Ciprian	ESP	43.7000	-7.4500	0.84
Castro Urdiales	ESP	43.4000	-3.2333	0.85
Ribadesella	ESP	43.4667	-5.0667	0.86
Pasajes	ESP	43.3333	-1.9333	0.86
San Sebastian(ESP)	ESP	43.3167	-1.9833	0.86
Bermeo	ESP	43.4167	-2.7167	0.87
Cudillero	ESP	43.5500	-6.1500	0.88
San Esteban de Pravia	ESP	43.5667	-6.0833	0.88
Carino	ESP	43.7333	-7.8500	0.90
Camarinas	ESP	43.1167	-9.1833	1.01
Cedeira	ESP	43.6500	-8.0667	1.05
Puerto de Santa Maria	ESP	36.6000	-6.2333	1.08
Corme	ESP	43.2667	-8.9667	1.12
Cillero	ESP	43.6833	-7.6000	1.16
San Fernando(ESP)	ESP	36.4667	-6.2000	1.17
Santa Eugenia de Riveira	ESP	42.5500	-8.9833	1.17
Sada	ESP	43.3667	-8.2500	1.21
Corcubion	ESP	42.9500	-9.1833	1.22
Cee	ESP	42.9500	-9.1667	1.22
Muros	ESP	42.7500	-9.0167	1.24
Caraminal	ESP	42.6000	-8.9333	1.28
Puerto Real	ESP	36.5333	-6.1833	1.29

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Porto Vecchio	FRA	41.6000	9.2833	0.31
Villefranche	FRA	43.7000	7.3167	0.32
Nice	FRA	43.7000	7.2833	0.32
Beaulieu	FRA	43.7000	7.3333	0.32
Ile Rousse	FRA	42.6500	8.9333	0.36
Calvi	FRA	42.5833	8.8000	0.36
Bonifacio	FRA	41.3833	9.1000	0.50
Lavera	FRA	43.3833	5.0000	0.53
Port de Bouc	FRA	43.4000	4.9833	0.53
Martigues	FRA	43.4000	5.0500	0.53
Port Vendres	FRA	42.5167	3.1167	0.59
Collioure	FRA	42.5333	3.0833	0.59
Propriano	FRA	41.6667	8.9000	0.59
Hyerres-Plage	FRA	43.0833	6.1500	0.60
St. Tropez	FRA	43.2667	6.6333	0.61
Porquerolles	FRA	42.9833	6.2000	0.62
Ajaccio	FRA	41.9167	8.7333	0.63
Toulon	FRA	43.1167	5.9167	0.64
La Seyne	FRA	43.1000	5.8833	0.64
Antibes	FRA	43.5833	7.1333	0.65
Cannes	FRA	43.5167	7.0167	0.65
Biarritz	FRA	43.5000	-1.5667	0.67
Le Lavandou	FRA	43.1333	6.3667	0.71
Bastia	FRA	42.7000	9.4500	0.74
St. Jean de Luz	FRA	43.4000	-1.6667	0.74
La Nouvelle	FRA	43.0167	3.0667	0.78
La Ciotat	FRA	43.1667	5.6000	0.79
Sete	FRA	43.4000	3.7000	0.82
Marseilles	FRA	43.3333	5.3500	0.83
Cassis	FRA	43.2167	5.5333	0.83
Fos	FRA	43.3833	4.8500	0.85
Etang de Berre	FRA	43.4833	5.1667	0.87
Sanary-sur-Mer	FRA	43.1167	5.8000	0.87
Marennes	FRA	45.8167	-1.1000	0.97
La Pallice	FRA	46.1667	-1.2333	1.01
La Rochelle	FRA	46.1500	-1.1500	1.04
Quiberon	FRA	47.5000	-3.1167	1.10
Sables d'Olonne	FRA	46.5000	-1.8000	1.12
St. Nazaire	FRA	47.2667	-2.2000	1.12
Saint Brevin	FRA	47.2500	-2.1500	1.14
La Trinite sur Mer	FRA	47.5833	-3.0333	1.15
Loctudy	FRA	47.8333	-4.1667	1.17
Camaret	FRA	48.2833	-4.6000	1.24
Morgat	FRA	48.2167	-4.5000	1.24
Douarnenez	FRA	48.1000	-4.3333	1.26
Concarneau	FRA	47.8667	-3.9167	1.26
La Teste	FRA	44.6167	-1.1500	1.26
Gibraltar	GIB	36.1500	-5.3333	0.40
Basse Terre	GLP	16.0333	-61.7500	1.16
Banjul	GMB	13.4500	-16.5667	1.20
Luba	GNQ	3.4667	8.5500	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Mykonos	GRC	37.4500	25.3333	0.04
Delos	GRC	37.4000	25.2833	0.04
Tinos	GRC	37.5333	25.1667	0.05
Naxos	GRC	37.1000	25.3833	0.06
Paros	GRC	37.0833	25.3167	0.06
Andros	GRC	37.8167	24.9000	0.07
Syros	GRC	37.4333	24.9500	0.09
Amorgos	GRC	36.8167	25.9000	0.09
Patmos	GRC	37.3000	26.5833	0.10
Karlovassi	GRC	37.8000	26.6833	0.12
Samos	GRC	37.7500	26.9667	0.12
Mytilene	GRC	39.1000	26.5833	0.12
Serifos	GRC	37.1167	24.5333	0.13
Ayia Marina(Leros Is.)	GRC	37.1500	26.8500	0.13
Port Laki	GRC	37.1167	26.8500	0.13
Astipalia	GRC	36.5333	26.3667	0.13
Thira	GRC	36.4167	25.4500	0.14
Kea	GRC	37.6333	24.3333	0.14
Ayios Nikolaos(Kea)	GRC	37.6667	24.3167	0.14
Kithnos	GRC	37.4000	24.4667	0.14
Karistos	GRC	38.0167	24.4167	0.14
Kimolos	GRC	36.7833	24.5667	0.15
Sifnos Is.	GRC	36.9667	24.7167	0.15
Voudia Bay	GRC	36.7500	24.5333	0.15
Porto Rafti	GRC	37.8833	24.0000	0.16
Laurium	GRC	37.7000	24.0667	0.18
Kimi	GRC	38.6333	24.1000	0.18
Adhamas	GRC	36.7167	24.4500	0.18
Rafina	GRC	38.0167	24.0000	0.18
Vatika Bay	GRC	36.5167	23.0000	0.20
Neapolis	GRC	36.5000	23.0500	0.20
Monemvasia	GRC	36.6833	23.0500	0.20
Halki	GRC	36.2167	27.5833	0.21
Mandoudhi	GRC	38.8167	23.5333	0.21
Kymassi	GRC	38.8167	23.5167	0.21
Kalymnos	GRC	36.9500	26.9833	0.22
Nisiros	GRC	36.6167	27.1333	0.23
Yali	GRC	36.6500	27.1167	0.23
Ayios Evstratios	GRC	39.5167	24.9667	0.24
Skopelos	GRC	39.1167	23.7500	0.24
Alonisos	GRC	39.1500	23.8333	0.24
Larimna	GRC	38.5667	23.3000	0.25
Kos	GRC	36.8833	27.3167	0.25
Ermioni	GRC	37.3833	23.2333	0.26
Hydra	GRC	37.3500	23.4667	0.26
Karpathos	GRC	35.5000	27.2000	0.27
Myrina	GRC	39.8667	25.0500	0.27
Kithira	GRC	36.1333	23.0000	0.27
Gavdo	GRC	34.8333	24.0667	0.28
Metokhi	GRC	37.7000	23.3833	0.29
Poros	GRC	37.5000	23.4667	0.29

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Iraklion	GRC	35.2667	25.1667	0.29
Linoperamata	GRC	35.3500	25.0500	0.29
Skiathos	GRC	39.1667	23.4833	0.30
Piraeus	GRC	37.9333	23.6333	0.31
Drapetzona	GRC	37.9333	23.6167	0.31
Perama	GRC	37.9500	23.5833	0.31
Salamis	GRC	37.9667	23.5000	0.31
St. George Hbr.(GRC)	GRC	37.9500	23.6000	0.31
Ambelaki	GRC	37.9500	23.5333	0.31
Suda Bay	GRC	35.4833	24.0500	0.31
Megara	GRC	37.9667	23.4000	0.31
Pachi	GRC	37.9667	23.3833	0.31
Revithousa	GRC	37.9592	23.4036	0.31
Aegina	GRC	37.7333	23.4167	0.31
Platiyali	GRC	38.4667	21.1000	0.32
Kissamos	GRC	35.4833	23.6333	0.32
Vathi	GRC	38.3667	20.7333	0.33
Stavros	GRC	38.4500	20.6500	0.33
Kali Limenes	GRC	34.9333	24.8333	0.34
Araxos	GRC	38.1667	21.4000	0.35
Cape Tainaron	GRC	36.3833	22.4833	0.37
Simi	GRC	36.6167	27.8333	0.37
Stratoni	GRC	40.5167	23.8500	0.38
Zante	GRC	37.7833	20.9000	0.38
Kiato	GRC	38.0167	22.7333	0.40
Samothraki	GRC	40.4500	25.5333	0.40
Kyllini	GRC	37.9500	21.1500	0.41
Pylos	GRC	36.9167	21.7000	0.41
Kyparissia	GRC	37.2500	21.6833	0.45
Pachia Ammos	GRC	35.1167	25.8333	0.48
Ayios Nikolaos(Crete)	GRC	35.1833	25.7167	0.49
Rhodes	GRC	36.4500	28.2333	0.50
Sitia	GRC	35.2167	26.1167	0.52
Ayia Galini	GRC	35.1000	24.6833	0.52
Proti Is.	GRC	37.0500	21.5500	0.55
Mesolongion	GRC	38.3167	21.3667	0.62
Kalamata	GRC	37.0000	22.1167	0.62
Argostoli	GRC	38.2000	20.4833	0.62
Katakolon	GRC	37.6500	21.3333	0.62
Gythion	GRC	36.7500	22.5667	0.63
Corfu	GRC	39.6167	19.9500	0.68
Drepanon	GRC	38.7833	20.7333	0.69
Rethimnon	GRC	35.3667	24.4667	0.70
Kheli	GRC	37.3167	23.1500	0.70
Spetsai	GRC	37.2667	23.1667	0.70
Preveza	GRC	38.9500	20.7500	0.70
Rion	GRC	38.3000	21.8000	0.72
Patras	GRC	38.2500	21.7333	0.72
Chios	GRC	38.3833	26.1500	0.72
Nauplia	GRC	37.5667	22.8000	0.73
Astakos	GRC	38.5333	21.0833	0.73

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Pythagorion	GRC	37.6833	26.9333	0.74
Aegion	GRC	38.2500	22.1000	0.75
Isthmia	GRC	37.9167	23.0000	0.79
Corinth	GRC	37.9500	22.9333	0.79
Igoumenitsa	GRC	39.5333	20.2167	0.79
Agioi Theodoroi	GRC	37.9000	23.0500	0.81
Kalamaki	GRC	37.9167	23.0167	0.81
Sousaki	GRC	37.9167	23.1167	0.81
Limni	GRC	38.7667	23.3167	0.82
Aspropyrgos	GRC	38.0167	23.5833	0.84
Eleusis	GRC	38.0333	23.5000	0.85
Skaramanga	GRC	38.0000	23.5833	0.85
Galaxidi	GRC	38.3667	22.3833	0.85
Itea	GRC	38.4333	22.4167	0.85
Kalyvia	GRC	40.2667	23.4000	0.99
Yerakini	GRC	40.2667	23.4333	0.99
Nea Moudhania	GRC	40.2333	23.2833	0.99
Thisvi	GRC	38.2500	22.9500	0.99
Eratini	GRC	38.3500	22.2333	1.03
Lagos(GRC)	GRC	41.0000	25.1167	1.03
Prinos	GRC	40.9333	24.5167	1.04
Aspra Spitia	GRC	38.3667	22.6333	1.06
Elevtherai	GRC	40.8333	24.3167	1.07
Nea Peramos	GRC	40.8167	24.3000	1.07
Thessaloniki	GRC	40.6333	22.9333	1.08
Nea Karvali	GRC	40.9500	24.4833	1.10
Kavala	GRC	40.9167	24.4167	1.10
Thasos	GRC	40.7667	24.7000	1.11
Alexandroupolis	GRC	40.8500	25.9500	1.12
Lastovo	HRV	42.7667	16.9000	0.30
Ubli	HRV	42.7333	16.8167	0.30
Brna	HRV	42.9000	16.8500	0.30
Vela Luka	HRV	42.9833	16.6167	0.32
Stari Grad	HRV	43.2000	16.5500	0.32
Hvar	HRV	43.2667	16.4500	0.33
Komiza	HRV	43.0333	16.0833	0.33
Milna	HRV	43.3167	16.4500	0.33
Sali	HRV	43.9167	15.1667	0.34
Veli Rat	HRV	44.1500	14.8167	0.40
Mali Losinj	HRV	44.5333	14.4667	0.43
Gradac	HRV	44.9667	14.1000	0.47
Merag	HRV	44.9833	14.4333	0.64
Beli	HRV	45.1000	14.3667	0.64
Valbiska	HRV	45.0500	14.4667	0.64
Korcula	HRV	42.8000	17.1333	0.76
Bol	HRV	43.2500	16.6500	0.87
Dugi Rat	HRV	43.4500	16.6500	0.89
Supetar	HRV	43.3833	16.5500	0.89
Brijuni	HRV	44.9000	13.7833	0.94
Sibenik	HRV	43.7333	15.9000	0.95
Primosten	HRV	43.6833	15.9500	0.95

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Budava	HRV	44.9000	13.9833	0.96
Brbinj	HRV	44.0667	14.9833	0.98
Vranjic	HRV	43.5000	16.4500	0.98
Split	HRV	43.5000	16.4500	0.98
Rab	HRV	44.7500	14.7667	0.98
Ploce	HRV	43.0333	17.4167	0.98
Trogir	HRV	43.5167	16.2500	0.99
Vrsar	HRV	45.1500	13.6000	0.99
Rovinj	HRV	45.0833	13.6333	0.99
Krk	HRV	45.0167	14.5833	1.00
Ugljan	HRV	44.1333	15.1167	1.00
Porec	HRV	45.2333	13.6000	1.01
Novigrad	HRV	45.3167	13.5667	1.01
Luka Mirna	HRV	45.3000	13.5667	1.01
Malinska	HRV	45.1167	14.5167	1.01
Zadar	HRV	44.1167	15.2333	1.02
Ravnice	HRV	43.4167	16.7000	1.03
Omis	HRV	43.4333	16.7000	1.03
Kastel Sucurac	HRV	43.5500	16.4167	1.03
Solin	HRV	43.5333	16.4667	1.03
Umag	HRV	45.4333	13.5167	1.04
Cavtat	HRV	42.5667	18.2167	1.06
Prtlog	HRV	45.0500	14.1500	1.07
Rabac	HRV	45.0667	14.1667	1.07
Pag	HRV	44.4500	15.0500	1.09
Gruz	HRV	42.6667	18.0833	1.10
Dubrovnik	HRV	42.6333	18.1167	1.10
Pula	HRV	44.8833	13.8333	1.21
Omisalj	HRV	45.2167	14.5500	1.26
Kraljevica	HRV	45.2833	14.5667	1.26
Bandar Imam Khomeini	IRN	30.4167	49.0667	1.23
Bandar Mahshahr	IRN	30.4667	49.1833	1.23
Tel Aviv	ISR	32.1000	34.7833	0.69
Haifa	ISR	32.8167	35.0000	0.71
Ashkelon	ISR	31.6667	34.5500	0.73
Hadera	ISR	32.4500	34.9167	0.77
Akko	ISR	32.9167	35.0667	0.83
Ashdod	ISR	31.8258	34.6542	1.01
Eilat	ISR	29.5500	34.9500	1.19
Golfo Aranci	ITA	41.0000	9.6167	0.28
Porto Cervo	ITA	41.1333	9.5500	0.28
Santa Liberata	ITA	42.4167	11.1500	0.28
Porto Santo Stefano	ITA	42.4500	11.1167	0.28
Giglio Is.	ITA	42.3667	10.9167	0.29
Capraia Is.	ITA	43.0500	9.9000	0.29
Vallone	ITA	42.7000	10.4000	0.30
Imperia	ITA	43.8833	8.0333	0.31
Pietra Ligure	ITA	44.1500	8.2833	0.31
Olbia	ITA	40.9167	9.5667	0.31
Porto Torres	ITA	40.8333	8.4000	0.32
Porto Azzurro	ITA	42.7667	10.4000	0.32

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Portoferraio	ITA	42.8167	10.3333	0.32
Rio Marina	ITA	42.8167	10.4333	0.32
Anzio	ITA	41.4500	12.6333	0.32
Porto Vesme	ITA	39.2000	8.4000	0.33
Sant' Antioco	ITA	39.0333	8.4333	0.33
Portoscuso	ITA	39.2167	8.3667	0.33
Carloforte	ITA	39.1500	8.3167	0.33
Piombino	ITA	42.9333	10.5500	0.34
Barletta	ITA	41.3167	16.2667	0.35
Trani	ITA	41.2833	16.4167	0.35
Agropoli	ITA	40.3333	14.9667	0.35
Gaeta	ITA	41.2167	13.5833	0.37
Capri	ITA	40.5500	14.2500	0.37
Positano	ITA	40.6167	14.4667	0.37
Sorrento	ITA	40.6333	14.3833	0.37
Avola	ITA	36.9000	15.1500	0.38
Marzamemi	ITA	36.7500	15.1167	0.38
Otranto	ITA	40.1500	18.5000	0.39
Ponza	ITA	40.9000	12.9667	0.39
Santa Panagia	ITA	37.1167	15.2667	0.40
Siracusa	ITA	37.0500	15.3000	0.40
Porto d'Ischia	ITA	40.7333	13.9500	0.40
Casamicciola Terme	ITA	40.7500	13.9000	0.40
Pozzallo	ITA	36.7167	14.8500	0.40
Tremiti Is.	ITA	42.1167	15.5000	0.40
Marsala	ITA	37.8000	12.4333	0.40
Favignana	ITA	37.9333	12.3333	0.40
Pantelleria	ITA	36.7833	12.0000	0.40
Porto Xifonio	ITA	37.2333	15.2333	0.40
Taranto	ITA	40.4500	17.2000	0.41
Crotone	ITA	39.0833	17.1333	0.41
Reggio di Calabria	ITA	38.1167	15.6500	0.42
Messina	ITA	38.2000	15.5667	0.42
Villa San Giovanni	ITA	38.2167	15.6333	0.42
Brindisi	ITA	40.6500	17.9833	0.42
Ciro Marina	ITA	39.3667	17.1333	0.42
Taormina	ITA	37.8500	15.3000	0.44
Giardini	ITA	37.8333	15.2833	0.44
Termoli	ITA	42.0000	15.0000	0.44
Santa Teresa Gallura	ITA	41.2333	9.1667	0.46
Capo San Vito	ITA	38.2000	12.7167	0.47
Trapani	ITA	38.0333	12.5167	0.47
Stromboli	ITA	38.8000	15.2500	0.48
Gela	ITA	37.0667	14.2500	0.48
Ortona	ITA	42.3500	14.4167	0.48
Pescara	ITA	42.4667	14.2333	0.48
Castellammare del Golfo	ITA	38.0333	12.8833	0.48
Panarea	ITA	38.6333	15.0667	0.49
Palau(ITA)	ITA	41.1833	9.3833	0.49
La Maddalena	ITA	41.2167	9.4000	0.49
Alghero	ITA	40.5667	8.3167	0.49

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Lipari	ITA	38.4667	14.9500	0.50
Vulcano	ITA	38.4167	14.9667	0.50
Salina	ITA	38.5667	14.8667	0.50
Rinella	ITA	38.5500	14.8333	0.50
Linosa Is.	ITA	35.8667	12.8500	0.51
Termini Imerese	ITA	37.9833	13.7000	0.51
Porticello	ITA	38.0833	13.5333	0.51
Licata	ITA	37.1000	13.9333	0.52
Sciacca	ITA	37.5000	13.0833	0.53
Mazara del Vallo	ITA	37.6500	12.5833	0.54
Ustica	ITA	38.7000	13.1833	0.54
Sarroch	ITA	39.0833	9.0333	0.54
Lampedusa Is.	ITA	35.5000	12.6000	0.54
Ancona	ITA	43.6172	13.5117	0.54
Porto Empedocle	ITA	37.2833	13.5333	0.56
Oristano	ITA	39.8667	8.5500	0.56
Vibo Valentia	ITA	38.7167	16.1333	0.58
Palermo	ITA	38.1167	13.3667	0.59
Cagliari	ITA	39.2000	9.0833	0.59
Civitavecchia	ITA	42.1000	11.8000	0.60
Fano	ITA	43.8500	13.0167	0.61
Torregrotta	ITA	38.2000	15.3667	0.62
Arbatax	ITA	39.9333	9.7000	0.62
Pozzuoli	ITA	40.8167	14.1167	0.62
Bagnoli	ITA	40.8000	14.1667	0.62
Baia	ITA	40.8167	14.0833	0.62
Procida	ITA	40.7833	14.0333	0.62
Acciaroli	ITA	40.1667	15.0167	0.62
Gioia Tauro	ITA	38.4333	15.9000	0.63
Marina di Catanzaro	ITA	38.8167	16.6167	0.63
Fiumicino	ITA	41.7667	12.2333	0.65
Ostia	ITA	41.7167	12.3000	0.65
Riposto	ITA	37.7333	15.2167	0.66
Torre del Greco	ITA	40.7833	14.3667	0.66
Castellammare di Stabia	ITA	40.7000	14.4833	0.66
Torre Annunziata	ITA	40.7500	14.4500	0.66
Catania	ITA	37.5167	15.1000	0.66
Bagnara Calabria	ITA	38.2667	15.8000	0.67
Augusta	ITA	37.2000	15.2167	0.67
Terracina	ITA	41.2833	13.2500	0.67
Naples	ITA	40.8500	14.2667	0.68
Gallipoli	ITA	40.0500	18.0000	0.69
Milazzo	ITA	38.2167	15.2500	0.69
Bari	ITA	41.1333	16.8833	0.69
Molfetta	ITA	41.2167	16.6333	0.69
Corigliano	ITA	39.6667	16.5167	0.70
Portici	ITA	40.8167	14.3333	0.70
Follonica	ITA	42.9167	10.7500	0.71
Portiglione	ITA	42.8833	10.7667	0.71
Talamone	ITA	42.5500	11.1333	0.73
Ventimiglia	ITA	43.7833	7.6000	0.73



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bordighera	ITA	43.7833	7.6667	0.73
Leghorn	ITA	43.5500	10.3167	0.74
Salerno	ITA	40.6833	14.7667	0.76
Vada	ITA	43.3500	10.4500	0.76
Monopoli	ITA	40.9500	17.3000	0.76
Vasto	ITA	42.1000	14.7167	0.77
Manfredonia	ITA	41.6167	15.9167	0.78
Amalfi	ITA	40.6333	14.6000	0.78
Ameglia	ITA	44.0667	9.9667	0.79
Vieste	ITA	41.8667	16.1833	0.82
La Spezia	ITA	44.1167	9.8333	0.88
Portovenere	ITA	44.0500	9.8333	0.88
Savona	ITA	44.3000	8.4833	0.88
Viareggio	ITA	43.8667	10.2500	0.89
Formia	ITA	41.2500	13.6000	0.90
Rimini	ITA	44.0667	12.5833	0.90
San Benedetto del Tronto	ITA	42.9500	13.8833	0.91
Giulianova	ITA	42.7500	13.9667	0.92
Genoa	ITA	44.4167	8.9167	0.95
Ravenna	ITA	44.4167	12.4500	0.96
Lavagna	ITA	44.3000	9.3500	0.96
Sestri Levante	ITA	44.2667	9.3833	0.96
Porto Garibaldi	ITA	44.6833	12.2333	0.98
Falconara	ITA	43.6667	13.4000	0.99
Chioggia	ITA	45.2167	12.2833	1.01
Porto Levante	ITA	45.0667	12.3667	1.01
Pellestrina	ITA	45.2667	12.3000	1.03
Marano	ITA	45.4333	12.3500	1.03
Venice	ITA	45.4333	12.3333	1.03
Senigallia	ITA	43.7000	13.0500	1.03
Santa Giusta	ITA	39.8833	8.6167	1.04
Marina di Carrara	ITA	44.0333	10.0500	1.05
Trieste	ITA	45.6500	13.8000	1.06
Muggia	ITA	45.6000	13.7500	1.06
Pesaro	ITA	43.9167	12.9000	1.07
Monfalcone	ITA	45.7833	13.5500	1.10
Cattolica	ITA	43.9500	12.7333	1.10
San Remo	ITA	43.8167	7.7833	1.10
Portofino	ITA	44.3000	9.2333	1.16
Santa Margherita(ITA)	ITA	44.3333	9.2167	1.16
Cesenatico	ITA	44.2000	12.4000	1.19
St. Anns Bay	JAM	18.4333	-77.2000	1.26
Ocho Rios	JAM	18.4167	-77.1167	1.27
Aqaba	JOR	29.5167	35.0167	1.06
Uraga	JPN	35.2333	139.7333	0.44
Futtsu	JPN	35.3000	139.8167	0.45
Usami	JPN	35.0000	139.1000	0.46
Miura	JPN	35.1333	139.6167	0.47
Onahama	JPN	36.9333	140.9167	0.48
Tokai	JPN	36.4500	140.5833	0.50
Nakaminato	JPN	36.3500	140.6333	0.50

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ikata	JPN	33.4833	132.3500	0.60
Kawanoishi	JPN	33.4833	132.3833	0.60
Yaizu	JPN	34.8667	138.3333	0.60
Oigawa	JPN	34.7833	138.3000	0.60
Shimoda	JPN	34.6667	138.9500	0.61
Misaki	JPN	33.3833	132.1333	0.63
Omaezaki	JPN	34.6000	138.2333	0.63
Hitakatsu	JPN	34.6833	129.4500	0.64
Tsutsu	JPN	34.1167	129.1833	0.67
Izuhara	JPN	34.1833	129.3000	0.67
Toyohashi	JPN	34.7167	137.3167	0.67
Matsuyama	JPN	33.8500	132.7000	0.67
Atsumi	JPN	34.6667	137.0667	0.70
Nagashima	JPN	34.1833	136.3500	0.71
Toba	JPN	34.4833	136.8500	0.71
Udono	JPN	33.7333	136.0167	0.71
Iwakuni	JPN	34.1667	132.2500	0.72
Kanokawa	JPN	34.1667	132.4333	0.72
Ogaki	JPN	34.1667	132.4500	0.72
Taisha	JPN	35.4333	132.6667	0.73
Gotsu	JPN	35.0000	132.2167	0.73
Arida	JPN	34.0833	135.1167	0.73
Shimotsu	JPN	34.1167	135.1333	0.73
Kainan	JPN	34.1500	135.1833	0.73
Wakayama	JPN	34.2000	135.1333	0.73
Sakaiminato	JPN	35.5333	133.2500	0.74
Nagasaki	JPN	32.7167	129.8333	0.74
Tsu	JPN	34.6833	136.5500	0.74
Matsushima	JPN	32.9333	129.6000	0.75
Oseto	JPN	32.9333	129.6500	0.75
Kuchinotsu	JPN	32.6000	130.2000	0.76
Reihoku	JPN	32.5000	130.0333	0.76
Shingu	JPN	33.7000	136.0000	0.76
Usuki	JPN	33.1333	131.8167	0.77
Tsukumi	JPN	33.0833	131.8667	0.77
Kamigoto	JPN	32.9833	129.0667	0.77
Naruto	JPN	34.1833	134.6167	0.78
Komatsushima	JPN	34.0000	134.6000	0.78
Tokushima	JPN	34.0500	134.6000	0.78
Kikuma	JPN	34.0333	132.8333	0.78
Kinoe	JPN	34.2167	132.9000	0.78
Namikata	JPN	34.1167	132.9667	0.78
Yutaka	JPN	34.1667	132.8333	0.78
Onishi	JPN	34.0500	132.9167	0.78
Hashihama	JPN	34.1000	132.9667	0.78
Yokkaichi	JPN	34.9500	136.6500	0.81
Kanda	JPN	33.8000	131.0000	0.81
Tanoura	JPN	33.9667	130.9833	0.81
Ube	JPN	33.9333	131.2000	0.81
Yoshiumi	JPN	34.1333	133.0333	0.82
Kinoura	JPN	34.2000	133.1333	0.82

Global Port	Country	Latitude	Longitude	Environmental Distance
Imabari	JPN	34.0667	133.0167	0.82
Saga	JPN	34.0667	133.0833	0.82
Moji	JPN	33.9500	130.9667	0.82
Kokura	JPN	33.9000	130.9000	0.82
Shimonoseki	JPN	33.9333	130.9333	0.82
Mutsure	JPN	33.9667	130.8667	0.82
Niihama	JPN	33.9833	133.2833	0.84
Saganoseki	JPN	33.2500	131.8667	0.85
Seki Saki	JPN	33.2667	131.9000	0.85
Oppama	JPN	35.5667	135.2500	0.85
Tsuna	JPN	34.4167	134.9000	0.85
Sumoto	JPN	34.3333	134.8833	0.85
Kawanoe	JPN	34.0167	133.5333	0.85
Mishima-Kawanoe	JPN	34.0167	133.5667	0.85
Uchiura	JPN	35.5333	135.5000	0.85
Takahama	JPN	35.5000	135.5333	0.85
Nanao	JPN	37.1000	137.0333	0.85
Nandan	JPN	34.2333	134.7000	0.87
Toyama Shinko	JPN	36.8000	137.0833	0.87
Fushiki	JPN	36.7833	137.0500	0.87
Fushiki-Toyama	JPN	36.7667	137.0833	0.87
Himekawa	JPN	37.0333	137.8500	0.88
Toyama	JPN	36.7500	137.2333	0.88
Nagasu	JPN	33.5833	131.3667	0.88
Esaki	JPN	34.6500	131.6500	0.90
Kiire	JPN	31.3833	130.5500	0.92
Uchinomi	JPN	34.4667	134.3167	0.93
Niigata-Higashi	JPN	38.0000	139.2333	0.93
Ebisu	JPN	38.0833	139.4333	0.93
Naoshima	JPN	34.4500	134.0000	0.96
Honura	JPN	34.4500	134.0000	0.96
Takamatsu	JPN	34.3500	134.0500	0.96
Kushimoto	JPN	33.4667	135.7833	0.96
Takuma	JPN	34.2500	133.7000	0.97
Fukushima	JPN	41.4667	140.2667	0.98
Hikari	JPN	33.9500	131.9333	0.98
Kasado	JPN	33.9500	131.7833	0.98
Makurazaki	JPN	31.2667	130.3000	1.00
Kisarazu	JPN	35.3667	139.8833	1.00
Katsuura	JPN	33.6167	135.9500	1.02
Ishima	JPN	34.6667	134.5000	1.02
Aburatsu	JPN	31.5667	131.4000	1.03
Nango	JPN	31.5167	131.3667	1.03
Arari	JPN	34.8167	138.7500	1.04
Sakito	JPN	33.0167	129.5500	1.05
Shibushi	JPN	31.4667	131.1167	1.05
Kushikino	JPN	31.7500	130.2667	1.06
Shodoshima	JPN	34.5000	134.2500	1.06
Nobeoka	JPN	32.5833	131.7167	1.07
Tateyama	JPN	35.0000	139.8667	1.07
Komenotsu	JPN	32.1000	130.3333	1.07

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Sukumo	JPN	32.9167	132.7167	1.08
Hinase	JPN	34.7167	134.2500	1.08
Choshi	JPN	35.7333	140.6833	1.09
Miyazaki	JPN	31.8833	131.4500	1.10
Hososhima	JPN	32.4500	131.6667	1.10
Tanabe	JPN	33.7167	135.3500	1.10
Taura	JPN	35.3000	139.6333	1.11
Oshima	JPN	33.4667	129.5333	1.12
Saiki	JPN	32.9667	131.9167	1.12
Usunoura	JPN	33.2000	129.5833	1.13
Ainoura	JPN	33.1833	129.6500	1.13
Hamaoka	JPN	34.6333	138.1333	1.13
Kurihama	JPN	35.2167	139.7333	1.13
Yokosuka	JPN	35.2833	139.6833	1.13
Kamo	JPN	34.8500	138.7833	1.13
Kannoura	JPN	33.5833	134.3000	1.13
Urado	JPN	33.5000	133.5833	1.13
Kashima	JPN	35.9333	140.7000	1.14
Owase	JPN	34.0667	136.2167	1.14
Tachibana	JPN	33.8833	134.7167	1.14
Matsuura	JPN	33.3500	129.7333	1.14
Tsukama	JPN	35.0000	138.5167	1.15
Tagonoura	JPN	35.1333	138.7000	1.16
Numazu	JPN	35.1333	138.8333	1.16
Yura	JPN	33.9500	135.1000	1.16
Miyanoura	JPN	30.4333	130.5833	1.16
Susaki	JPN	33.3833	133.3000	1.17
Anan	JPN	33.9000	134.6667	1.18
Karatsu	JPN	33.4667	129.9667	1.18
Yoshida	JPN	33.2667	132.5333	1.18
Uwajima	JPN	33.2167	132.5500	1.18
Hamada	JPN	34.8833	132.0333	1.19
Honai	JPN	33.4667	132.3833	1.19
Yawatahama	JPN	33.4500	132.4000	1.19
Hirono	JPN	37.2333	141.0167	1.19
Okuma	JPN	37.3833	140.9833	1.19
Tomioka	JPN	37.3333	141.0000	1.19
Shimizu	JPN	35.0167	138.5333	1.19
Shirashima	JPN	34.0167	130.7333	1.21
Beppu	JPN	33.3000	131.5167	1.21
Gamagori	JPN	34.8000	137.2167	1.22
Mikawa	JPN	34.7667	137.2667	1.22
Senzaki	JPN	34.4000	131.2000	1.23
Kobe	JPN	34.6667	135.2167	1.23
Kunisaki	JPN	33.5833	131.7167	1.24
Yanai	JPN	33.9500	132.1333	1.25
Hirao	JPN	33.9000	132.0500	1.25
Onoda	JPN	34.0000	131.1833	1.25
Hagi	JPN	34.4000	131.4000	1.25
Nagahama	JPN	33.6167	132.4833	1.25
Nakajima	JPN	33.9000	132.7333	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Hojo	JPN	33.9667	132.7667	1.26
Etajima	JPN	34.2333	132.4667	1.27
Hiroshima	JPN	34.3333	132.4500	1.27
Kudamatsu	JPN	34.0000	131.8500	1.27
Ofunato	JPN	38.9833	141.7500	1.27
Handa	JPN	34.8833	136.9333	1.28
Kinuura	JPN	34.8667	136.9500	1.28
Toyo	JPN	33.9167	133.0667	1.28
Saijo	JPN	33.9167	133.1667	1.28
Nakanoseki	JPN	34.0000	131.5667	1.28
Tokuyama	JPN	34.0000	131.8000	1.28
Ujina	JPN	34.3500	132.4667	1.28
Hiketa	JPN	34.2167	134.4000	1.29
Otake	JPN	34.2000	132.2000	1.29
Hitachi	JPN	36.4833	140.6333	1.29
Chita	JPN	34.9833	136.8500	1.29
Hannan	JPN	34.4667	135.3500	1.29
Kishiwada	JPN	34.4667	135.3667	1.29
Onsan	KOR	35.4500	129.3667	0.53
Okpo	KOR	34.8833	128.7167	0.56
Jeju	KOR	33.5167	126.5500	0.69
Donghae	KOR	37.5136	129.1203	0.79
Samchok	KOR	37.4842	129.1239	0.79
Okke	KOR	37.5000	129.0833	0.79
Mukho	KOR	37.5492	129.1086	0.79
Sokcho	KOR	38.2333	128.5500	1.15
Seogwipo	KOR	33.2333	126.5667	1.19
Boryoung	KOR	35.3333	126.4667	1.22
Mina al Ahmadi	KWT	29.0667	48.1500	1.25
Mina Abdulla	KWT	29.0167	48.1667	1.25
Shuaiba	KWT	29.0333	48.1667	1.25
Sea Island(KWT)	KWT	29.1167	48.2833	1.28
Kubbar Is.	KWT	29.0667	48.5667	1.29
Doha(KWT)	KWT	29.3833	47.8000	1.29
Amchite	LBN	34.1500	35.6167	0.57
Jbeil	LBN	34.1000	35.6333	0.57
Chekka	LBN	34.3333	35.7333	0.60
Tripoli(LBN)	LBN	34.4667	35.8333	0.62
Enfeh	LBN	34.3500	35.7333	0.62
Jounieh	LBN	33.9833	35.6500	0.62
Dbayeh	LBN	33.9333	35.5833	0.62
Beirut	LBN	33.9000	35.5167	0.62
Ouzai	LBN	33.8333	35.4833	0.71
Khalde	LBN	33.8000	35.4833	0.71
Selaata	LBN	34.2667	35.6500	0.87
Jieh	LBN	33.6667	35.4000	0.89
Sidon	LBN	33.5667	35.3667	0.89
Zahrani Term.	LBN	33.5333	35.3167	0.89
Sour	LBN	33.2667	35.2000	0.90
Naqura	LBN	33.1167	35.1333	0.93
Ras el Hilal	LBY	32.9167	22.1833	0.55

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Derna	LBY	32.7667	22.6500	0.56
Tobruk	LBY	32.0833	23.9833	0.58
Bardia	LBY	31.7500	25.1167	0.59
Az Zawiyah	LBY	32.8167	12.7167	0.60
Mellitah	LBY	32.8833	12.2500	0.61
Abu Kammash	LBY	33.0667	11.8167	0.64
Ras Lanuf	LBY	30.5167	18.5667	0.67
Rasco Hbr.	LBY	30.5333	18.6000	0.67
Khoms	LBY	32.6500	14.2667	0.73
Misurata	LBY	32.3667	15.2333	0.77
Sirte	LBY	31.2167	16.5833	0.78
Benghazi	LBY	32.1167	20.0500	0.81
Zueitina Term.	LBY	30.8500	20.0500	0.86
Ras el Mungar	LBY	31.1833	20.1000	0.87
Marsa el Brega	LBY	30.4167	19.5833	0.89
Zuara	LBY	32.9167	12.1167	0.92
Tripoli(LBY)	LBY	32.9000	13.1833	0.98
Al Hoceima	MAR	35.2500	-3.9000	0.18
Casablanca	MAR	33.6167	-7.6000	0.19
El Jadida	MAR	33.2667	-8.5167	0.20
Rabat	MAR	34.0333	-6.8333	0.20
Mehdia	MAR	34.3000	-6.6500	0.21
Agadir	MAR	30.4167	-9.6333	0.21
Nador	MAR	35.2667	-2.9167	0.21
Tan Tan	MAR	28.5000	-11.3500	0.28
Mohammedia	MAR	33.7167	-7.3667	0.30
Larache	MAR	35.2000	-6.1500	0.30
Sidi Ifni	MAR	29.3667	-10.2000	0.33
Safi	MAR	32.3000	-9.2500	0.35
Tangier	MAR	35.7833	-5.8000	0.36
Jorf Lasfar	MAR	33.1167	-8.6333	0.38
Essaouira	MAR	31.5000	-9.7833	0.69
Tarfaya	MAR	27.9333	-12.9333	0.83
Monte Carlo	MCO	43.7333	7.4167	0.91
Mananjary	MDG	-21.2333	48.3500	1.16
El Sauzal	MEX	31.8833	-116.6833	0.44
Ensenada(MEX)	MEX	31.8500	-116.6333	0.47
Morro Redondo	MEX	28.0500	-115.1833	0.57
Mulege	MEX	26.8833	-111.9500	0.93
Loreto	MEX	26.0167	-111.3500	0.95
La Paz(MEX)	MEX	24.1667	-110.3167	1.15
San Juan de la Costa	MEX	24.4000	-110.4000	1.15
Pichilingue	MEX	24.3000	-110.3000	1.15
Mgarr	MLT	36.0167	14.3000	0.46
Gozo Is.	MLT	36.0667	14.2167	0.46
Valletta	MLT	35.9000	14.5167	0.50
Marsaxlokk	MLT	35.8167	14.5667	0.50
St. Paul's Bay	MLT	35.9500	14.4000	0.50
Maputo	MOZ	-25.9833	32.6000	1.17
Ponta Dobela	MOZ	-26.5167	32.9167	1.25
Inhambane	MOZ	-23.8667	35.3833	1.28

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Pointe des Mouettes	MRT	20.8333	-17.0333	0.31
Point Central	MRT	20.8167	-17.0333	0.31
Nouadhibou	MRT	20.9000	-17.0500	0.31
Cap Blanc	MRT	20.7667	-17.0500	0.31
Nouakchott	MRT	18.0333	-16.0333	0.78
Port de L'Amitie	MRT	18.0000	-16.0333	0.78
Ulcinj	MTG	41.9167	19.2000	0.43
Petrovac	MTG	42.2000	18.9167	0.43
Bar	MTG	42.0833	19.0833	1.07
Budva	MTG	42.2833	18.8500	1.22
Port Louis	MUS	-20.1500	57.4833	1.16
Oranjemund	NAM	-28.5667	16.3667	0.43
Walvis Bay	NAM	-22.9500	14.5000	0.44
Luderitz	NAM	-26.6333	15.1500	0.59
Poro(NCL)	NCL	-21.3000	165.7167	1.04
Noumea	NCL	-22.2833	166.4333	1.16
Mount Maunganui	NZL	-37.6833	176.2333	0.34
Tauranga	NZL	-37.6500	176.1667	0.35
Whakatane	NZL	-37.9500	177.0000	0.39
Onehunga	NZL	-36.9333	174.7667	0.46
Auckland	NZL	-36.8500	174.8000	0.46
Gisborne	NZL	-38.6833	178.0333	0.75
Napier	NZL	-39.4833	176.9167	0.79
Wanganui	NZL	-39.9500	175.0000	0.96
Westport(NZL)	NZL	-41.7333	171.5833	0.96
New Plymouth	NZL	-39.0667	174.0833	0.97
Greymouth	NZL	-42.4333	171.2167	0.98
Picton(NZL)	NZL	-41.2667	174.0000	1.21
Ancon	PER	-11.7833	-77.1833	0.29
La Pampilla	PER	-11.9333	-77.1833	0.30
Cerro Azul	PER	-13.0500	-76.5167	0.33
Puerto Bayovar	PER	-5.7833	-81.0500	0.33
Conchan	PER	-12.2500	-76.9333	0.36
Oquendo	PER	-11.9667	-77.1167	0.36
San Nicolas(PER)	PER	-15.2333	-75.2333	0.37
San Juan(PER)	PER	-15.3500	-75.1833	0.38
Atico	PER	-16.2167	-73.7167	0.39
Chancay	PER	-11.6000	-77.2833	0.43
Paramonga	PER	-10.7000	-77.8333	0.44
Supe	PER	-10.8333	-77.7333	0.44
Huacho	PER	-11.1333	-77.6167	0.44
Huarmey	PER	-10.0833	-78.1500	0.44
Negritos	PER	-4.6500	-81.3167	0.45
Talara	PER	-4.5667	-81.2833	0.45
Ilo	PER	-17.6333	-71.3500	0.50
Salaverry	PER	-8.2333	-79.0000	0.51
General San Martin	PER	-13.8333	-76.2667	0.51
Matarani	PER	-16.9833	-72.1167	0.56
Chimbote	PER	-9.0833	-78.6333	0.60
Coisco	PER	-9.0167	-78.6167	0.60
Callao	PER	-12.0500	-77.1500	0.60

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Cabo Blanco	PER	-4.2667	-81.2500	0.63
Los Organos	PER	-4.1667	-81.1333	0.64
Chicama	PER	-7.7000	-79.4167	0.68
Mollendo	PER	-17.0167	-72.0333	0.74
Pacasmayo	PER	-7.4000	-79.6000	0.88
Zorritos	PER	-3.6667	-80.6500	1.01
Eten	PER	-6.9333	-79.8667	1.03
Pimentel	PER	-6.8167	-79.9333	1.07
Punta Lobitos	PER	-4.4500	-81.2667	1.10
Paita	PER	-5.0833	-81.1167	1.22
Porto Santo	PMD	33.0500	-16.3333	0.26
Ponta Delgada(PMD)	PMD	32.8167	-17.0000	0.28
Madeira	PMD	32.6667	-16.9167	0.29
Funchal	PMD	32.6333	-16.9000	0.29
Penuelas	PRI	18.0019	-66.7508	1.20
Guayanilla	PRI	17.9833	-66.7500	1.28
Kosong(PRK)	PRK	38.6000	128.3500	1.17
Vila do Porto	PRT	36.9333	-25.1500	0.18
St. Michael's	PRT	37.7333	-25.6667	0.18
Ponta Delgada(AZO)	PRT	37.7333	-25.6667	0.18
Pico Is.	PRT	38.4667	-28.3000	0.19
Flores Is.	PRT	39.5000	-31.2167	0.19
Corvo Is.	PRT	39.6667	-31.1167	0.19
Fayal	PRT	38.5833	-28.7000	0.19
Horta	PRT	38.5333	-28.6333	0.19
Velas	PRT	38.6667	-28.2167	0.19
San Jorge Is.	PRT	38.6667	-28.0500	0.19
Terceira Is.	PRT	38.7167	-27.2167	0.21
Angra do Heroismo	PRT	38.6500	-27.2167	0.21
Graciosa Is.	PRT	39.0500	-28.0500	0.21
Praia da Graciosa	PRT	39.0500	-27.9667	0.21
Praia da Vitoria	PRT	38.7333	-27.0500	0.22
Lagos(PRT)	PRT	37.0833	-8.6667	0.23
Canical	PRT	32.7333	-16.7333	0.28
Albufeira	PRT	37.0833	-8.2500	0.30
Sesimbra	PRT	38.4333	9.1000	0.33
Setubal	PRT	38.5000	-8.9167	0.34
Figueira da Foz	PRT	40.1500	-8.8667	0.38
Faro	PRT	37.0167	-7.9167	0.38
Olhao	PRT	37.0167	-7.8333	0.38
Aveiro	PRT	40.6500	-8.7500	0.44
Leixoes	PRT	41.1833	-8.7167	0.62
San Martinho	PRT	39.5167	-9.1500	0.77
Sines	PRT	37.9500	-8.8667	0.77
Peniche	PRT	39.3667	-9.3833	0.80
Cascais	PRT	38.6833	-9.4167	0.82
Viana do Castelo	PRT	41.6833	-8.8333	0.99
Portimao	PRT	37.1333	-8.5333	1.11
Jamestown(SHN)	SHN	-15.9167	-5.7167	0.78
Tristan da Cunha	SHN	-37.0333	-12.3000	0.96
Koper	SVN	45.5547	13.7414	1.06



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Piran	SVN	45.5333	13.5667	1.13
Izola	SVN	45.5500	13.6667	1.13
Portoroz	SVN	45.5167	13.5833	1.13
Arwad Is.	SYR	34.8500	35.8500	0.71
Tartous	SYR	34.9000	35.8667	0.71
Lattakia	SYR	35.5167	35.7667	0.82
Borj Islam	SYR	35.6667	35.8000	0.82
Jeble	SYR	35.3500	35.9167	0.93
Banias	SYR	35.2333	35.9333	0.93
Bizerta	TUN	37.2667	9.8833	0.31
Galita Is.	TUN	37.5333	8.9333	0.32
Cap Bon	TUN	37.0833	11.0500	0.39
Kelibia	TUN	36.8333	11.0833	0.40
Rades	TUN	36.8000	10.2333	0.49
La Goulette	TUN	36.8167	10.3000	0.49
Sousse	TUN	35.8333	10.6500	0.53
Ras Dimasse	TUN	35.5833	11.0167	0.54
Tabarka	TUN	36.9667	8.7667	0.64
Sfax	TUN	34.7333	10.7667	0.75
Zarzis	TUN	33.5000	11.1167	0.76
Ajim	TUN	33.7167	10.7333	0.79
Gabes	TUN	33.9500	10.0667	0.79
La Skhira	TUN	34.2333	10.0667	0.89
Tunis	TUN	36.8000	10.2000	1.28
Nemrut Bay	TUR	38.7500	26.9167	0.00
Cesme	TUR	38.3167	26.3000	0.06
Ayvalik	TUR	39.3167	26.7167	0.16
Bozcaada	TUR	39.8333	26.0667	0.22
Bodrum	TUR	37.0333	27.4167	0.24
Gokceada	TUR	40.2000	25.9000	0.35
Kabatepe	TUR	40.2000	26.2000	0.38
Alanya	TUR	36.5333	32.0000	0.73
Kusadasi	TUR	37.8667	27.2333	0.75
Finike	TUR	36.3000	30.1500	0.77
Fethiye	TUR	36.6333	29.1000	0.79
Anamur	TUR	36.0167	32.8167	0.81
Gocek	TUR	36.7500	28.9833	0.82
Mersin	TUR	36.8000	34.6333	0.84
Camalti	TUR	38.5000	26.8833	0.84
Aliaga	TUR	38.8000	26.9833	0.85
Dikili	TUR	39.0833	26.8833	0.85
Gulluk	TUR	37.2500	27.6333	0.85
Yumurtalik	TUR	36.7667	35.7500	0.86
Antalya	TUR	36.8333	30.6167	0.87
Marmaris	TUR	36.8500	28.2667	0.88
Izmir	TUR	38.4333	27.1333	0.88
Tasucu	TUR	36.2333	33.9833	0.90
Karabiga	TUR	40.4000	27.3000	0.90
Sugozu	TUR	36.8667	35.9500	0.90
Ceyhan	TUR	36.8833	35.9333	0.90
Toros Gubre	TUR	36.9167	35.9833	0.90

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Edremit	TUR	39.5833	26.9500	0.93
Akcay	TUR	39.5833	26.9000	0.93
Kas	TUR	36.2000	29.6333	0.94
Canakkale	TUR	40.1500	26.4167	0.95
Kepez	TUR	40.1058	26.3781	0.95
Gokova	TUR	37.0500	28.3667	0.95
Dortyol	TUR	36.8333	36.2333	1.05
Payas	TUR	36.7500	36.1833	1.05
Icdas	TUR	40.4500	27.1333	1.06
Iskenderun	TUR	36.6000	36.1667	1.07
Gelibolu	TUR	40.4167	26.6833	1.10
Saraylar	TUR	40.6500	27.6667	1.13
Darica	TUR	40.7500	29.3833	1.17
Gebze	TUR	40.7667	29.4333	1.17
Tuzla	TUR	40.8092	29.3481	1.17
Edincik	TUR	40.3500	27.8667	1.18
Bandirma	TUR	40.3500	27.9667	1.18
Izmit	TUR	40.7667	29.9167	1.19
Yenikoy	TUR	40.7333	29.9000	1.19
Haydarpasa	TUR	41.0000	29.0167	1.19
Maltepe	TUR	40.9000	29.1500	1.19
Pendik	TUR	40.9000	29.2500	1.19
Kartal	TUR	40.8833	29.1833	1.19
Tekirdag	TUR	40.9500	27.5000	1.21
Diliskelesi	TUR	40.7667	29.5333	1.21
Hereke	TUR	40.7000	29.6167	1.21
Tavsancil	TUR	40.7833	29.5833	1.21
Karacabey	TUR	40.2333	28.3667	1.21
Uskudar	TUR	41.0167	29.0167	1.23
Mudanya	TUR	40.4500	28.8667	1.24
Gemlik	TUR	40.4333	29.1500	1.24
Yarimca	TUR	40.7333	29.7667	1.25
Tutunciftlik	TUR	40.7500	29.7833	1.25
Igsas	TUR	40.7500	29.7500	1.25
Zeytinburnu	TUR	40.7500	29.7667	1.25
Derince	TUR	40.7500	29.8167	1.25
Golcuk	TUR	40.7167	29.8000	1.25
Istanbul	TUR	41.0000	28.9667	1.25
Erdek	TUR	40.4000	27.7833	1.25
Yalova	TUR	40.6667	29.2500	1.25
Cekmece	TUR	40.9833	28.5500	1.25
Silivri	TUR	41.0500	28.2667	1.28
Eregli(Sea of Marmara)	TUR	40.9667	27.9667	1.29
Jinmen Is.	TWN	24.4500	118.3833	0.87
Taipei	TWN	25.1667	121.3500	1.10
Hualien	TWN	24.0000	121.6333	1.21
Taichung	TWN	24.2833	120.5000	1.25
Tamsui	TWN	25.1667	121.4167	1.25
Makung	TWN	23.5500	119.5500	1.27
Tainan	TWN	23.1000	120.0833	1.28
An Ping	TWN	22.9833	120.1333	1.29

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Midway Islands	UMI	28.2167	-177.3500	1.02
Punta del Este	URY	-34.9667	-54.9500	0.64
Maldonado	URY	-34.9500	-54.9500	0.64
Piriapolis	URY	-34.8667	-55.2667	0.72
Montevideo	URY	-34.9000	-56.2667	0.92
Nueva Palmira	URY	-33.8833	-58.4167	0.95
Colonia	URY	-34.4667	-57.8500	1.04
La Paloma	URY	-34.6500	-54.1500	1.12
Juan Lacaze	URY	-34.4333	-57.4167	1.15
El Segundo	USA	33.9000	-118.4500	0.38
San Clemente	USA	33.4333	-117.6000	0.39
Long Beach	USA	33.7500	-118.2167	0.47
Wilmington(CA USA)	USA	33.7667	-118.2667	0.47
Ventura	USA	34.2667	-119.3000	0.51
Oceanside	USA	33.2000	-117.3833	0.60
Avila	USA	35.1667	-120.7333	0.63
Port San Luis	USA	35.1667	-120.7500	0.63
Estero Bay	USA	35.4000	-120.8833	0.65
Los Angeles	USA	33.7167	-118.2667	0.65
San Pedro(CA USA)	USA	33.7167	-118.2500	0.65
Santa Barbara	USA	34.4000	-119.6833	0.72
Carpinteria	USA	34.4333	-119.6167	0.74
Elwood	USA	34.4333	-119.8833	0.75
Marina del Rey	USA	33.9667	-118.4333	0.80
Southport(USA)	USA	33.9167	-78.0000	0.83
Moss Landing	USA	36.8000	-121.7833	0.85
Manteo	USA	35.9000	-75.5833	0.86
Morehead City	USA	34.7167	-76.7000	0.90
Gaviota	USA	34.4667	-120.2333	0.90
Brunswick	USA	31.1333	-81.4833	0.91
Fernandina	USA	30.6833	-81.4667	0.98
Lahaina	USA	20.8667	-156.6833	0.99
Kings Bay(USA)	USA	30.8167	-81.5167	0.99
Wilmington(NC USA)	USA	34.2333	-77.9500	1.00
Port Hueneme	USA	34.1525	-119.2036	1.00
Beaufort	USA	32.4333	-80.6667	1.00
Port Royal(USA)	USA	32.3833	-80.7000	1.00
Morro Bay	USA	35.3667	-120.8500	1.01
Newport Beach	USA	33.6167	-117.9167	1.02
Houma	USA	29.5833	-90.7167	1.10
Dulac	USA	29.3833	-90.7000	1.11
Lockport	USA	29.6667	-90.5667	1.11
Bourg	USA	29.5500	-90.6000	1.11
Freeport(Texas)	USA	28.9333	-95.3000	1.11
Pass Christian	USA	30.3000	-89.2333	1.12
Chauvin	USA	29.4333	-90.5833	1.12
Theodore	USA	30.5333	-88.1833	1.13
Moss Point	USA	30.4167	-88.5167	1.13
Pascagoula	USA	30.3500	-88.5667	1.13
Escatawpa	USA	30.4333	-88.5333	1.13
Mobile	USA	30.6833	-88.0500	1.13

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Amelia	USA	29.6667	-91.1000	1.13
Patterson	USA	29.6667	-91.3333	1.13
Morgan City	USA	29.7000	-91.2167	1.15
Ingleside	USA	27.8333	-97.2333	1.15
Aransas Pass	USA	27.8833	-97.1333	1.15
Harbor Is.	USA	27.8667	-97.0667	1.15
Port Aransas	USA	27.8333	-97.0667	1.15
Daytona Beach	USA	29.1833	-81.0167	1.16
Ocean Springs	USA	30.3833	-88.8167	1.16
Pierre Part	USA	29.9500	-91.1833	1.16
Galliano	USA	29.4333	-90.3000	1.16
Larose	USA	29.5500	-90.3833	1.16
Cut Off	USA	29.5167	-90.3333	1.16
Jeanerette	USA	29.9000	-91.6667	1.16
Iberia(USA)	USA	30.0000	-91.8500	1.16
Lake Charles	USA	30.2167	-93.2500	1.16
Boca Grande(USA)	USA	26.7167	-82.2500	1.17
Sulphur	USA	30.2167	-93.4000	1.17
Rockport(TX)	USA	28.0167	-97.0333	1.17
Erath	USA	29.9500	-92.0167	1.17
Loreauville	USA	30.1333	-91.6333	1.17
Pearlington	USA	30.2333	-89.6000	1.18
Lafitte	USA	29.6500	-90.1000	1.18
Biloxi	USA	30.4000	-88.9000	1.18
Gulfport	USA	30.3500	-89.0833	1.18
Slidell	USA	30.2833	-89.8167	1.19
Kawaihae	USA	20.0333	-155.8333	1.19
Orange	USA	30.1000	-93.7333	1.19
Magpetco	USA	30.0333	-93.9833	1.19
Kailua Kona	USA	19.6333	-155.9833	1.19
Madisonville	USA	30.4167	-90.1500	1.20
Port Arthur	USA	29.8667	-93.9167	1.20
Port Neches	USA	29.9833	-93.9333	1.20
Smith's Bluff	USA	30.0000	-93.9833	1.20
Beaumont	USA	30.0833	-94.1000	1.20
Galveston	USA	29.3000	-94.8000	1.23
Texas City	USA	29.3667	-94.8833	1.23
Apalichicola	USA	29.7167	-84.9833	1.23
San Leon	USA	29.4833	-94.9167	1.23
Port Allen(HI USA)	USA	21.9000	-159.6000	1.23
St. Augustine	USA	29.8833	-81.3167	1.25
Bayport	USA	29.6167	-95.0167	1.26
Kemah	USA	29.5333	-95.0167	1.26
Sparrow's Point	USA	39.20	-76.47	1.27
Honolulu	USA	21.3000	-157.8667	1.27
Kilauea	USA	22.2333	-159.4000	1.28
Sabine	USA	29.7167	-93.8667	1.29
La Guaira	VEN	10.6000	-66.9333	0.91
Mossel Bay	ZAF	-34.1833	22.1667	0.25
Port Elizabeth	ZAF	-33.9667	25.6333	0.28
Bird Is.	ZAF	-33.8167	26.2833	0.31

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ngqura	ZAF	-33.7833	25.6833	0.34
Simonstown	ZAF	-34.1833	18.4333	0.42
Port Nolloth	ZAF	-29.2500	16.8667	0.65
East London	ZAF	-33.0333	27.9167	0.65
Cape of Good Hope	ZAF	-34.3500	18.4667	0.76
Durban	ZAF	-29.8667	31.0333	1.02
Cape Town	ZAF	-33.9167	18.4333	1.03
Robben Is.	ZAF	-33.8000	18.3667	1.03
Dassen Is.	ZAF	-33.4167	18.0833	1.05
Richards Bay	ZAF	-28.8000	32.1000	1.07
Saldanha Bay	ZAF	-33.0500	17.9333	1.18
Gaza		31.5000	34.4500	1.01

*Appendix B. List of global ports that have highest environmental similarity to Come By Chance-Whiffen Head. NIS originating from these ports have the highest potential for survival if introduced at Come By Chance-Whiffen Head.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Durres	ALB	41.3131	19.4511	0.84
Sarande	ALB	39.8719	20.0003	0.33
Shengjin	ALB	41.8150	19.5872	0.41
Vlore	ALB	40.4556	19.4850	0.46
Eckero	ALD	60.2167	19.6000	0.64
Farjsundet	ALD	60.2333	20.0167	0.41
Finstrom	ALD	60.2500	19.9167	0.40
Langnasudd	ALD	60.1167	20.3000	0.39
Mariehamn	ALD	60.1000	19.9333	0.37
Atucha	ARG	-33.9569	-59.2511	0.87
Bahia Blanca	ARG	-38.7372	-62.2897	1.23
Buenos Aires	ARG	-34.5903	-58.3775	0.85
Caleta Cordova	ARG	-45.7167	-67.3500	0.63
Camarones	ARG	-44.4500	-65.7000	0.61
Campana	ARG	-34.1567	-58.9664	0.89
Ensenada(ARG)	ARG	-34.8667	-57.9000	1.11
Escobar	ARG	-34.3500	-58.7667	0.93
Ibicuy	ARG	-33.7428	-59.1681	1.05
La Plata	ARG	-34.8725	-57.9069	1.11
Lima(ARG)	ARG	-33.9767	-59.1872	0.87
Mar del Plata	ARG	-38.0331	-57.5447	0.69
Necochea	ARG	-38.5753	-58.7214	0.75
Puerto Belgrano	ARG	-38.9000	-62.1000	0.48
Puerto Deseado	ARG	-47.7503	-65.8942	1.06
Puerto Galvan	ARG	-38.7833	-62.3000	0.84
Puerto Madryn	ARG	-42.7386	-65.0472	0.39
Puerto Rosales	ARG	-38.9167	-62.0667	0.48
Punta Colorada	ARG	-41.7000	-65.0333	0.40
Rio Gallegos	ARG	-51.6169	-69.2211	1.17
San Antonio Este	ARG	-40.8169	-64.7519	0.50
San Fernando(ARG)	ARG	-34.4500	-58.5333	0.96

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tigre	ARG	-34.4333	-58.5500	0.96
Zarate	ARG	-34.0911	-59.0206	0.89
Amsterdam Is.	ATF	-37.8500	77.5333	1.12
Kerguelen Is.	ATF	-49.5000	69.5000	1.18
St. Paul Is.(ATF)	ATF	-38.7167	77.5167	1.18
Adelaide	AUS	-34.8503	138.5669	1.17
Albany(AUS)	AUS	-35.0278	117.8956	0.96
Ardrossan(AUS)	AUS	-34.4344	137.9119	0.83
Ballast Head	AUS	-35.7667	137.8000	1.18
Barry Beach	AUS	-38.7167	146.3833	1.18
Bridport(AUS)	AUS	-40.9833	147.3667	1.13
Burnie	AUS	-41.0575	145.9050	1.02
Busselton	AUS	-33.6333	115.3333	1.03
Devonport(AUS)	AUS	-41.1758	146.3511	1.19
Eden	AUS	-37.0672	149.9064	1.10
Edithburgh	AUS	-35.0833	137.7500	1.14
Esperance	AUS	-33.8736	121.8919	0.97
Fremantle	AUS	-32.0592	115.7508	1.18
Hobart	AUS	-42.8383	147.2894	1.24
Jervis Bay	AUS	-35.1000	150.7833	1.18
King Is.	AUS	-39.8333	144.0000	1.26
Klein Point	AUS	-34.9172	137.7928	1.15
Kwinana	AUS	-32.2167	115.7500	1.13
Port Bonython	AUS	-32.9889	137.7672	0.96
Port Giles	AUS	-35.0225	137.7603	1.15
Port Kembla	AUS	-34.4650	150.8892	0.84
Port Latta	AUS	-40.8536	145.3872	1.09
Port Lincoln	AUS	-34.7244	135.8692	0.95
Port Pirie	AUS	-33.1686	138.0108	0.86
Port Stanvac	AUS	-35.1167	138.4667	1.12
Port Vincent	AUS	-34.9500	137.8667	1.15
Port Welshpool	AUS	-38.7000	146.4500	1.18
Portland(AUS)	AUS	-38.3506	141.6058	0.90
Rapid Bay	AUS	-35.5167	138.1833	1.14
Thevenard	AUS	-32.1469	133.6467	0.89
Ulverstone	AUS	-41.2333	146.1667	1.09
Wallaroo	AUS	-33.9294	137.6247	0.88
Whyalla	AUS	-33.0375	137.5869	1.10
Linz	AUT	48.3167	14.3000	1.25
Antwerp	BEL	51.2447	4.4114	1.24
Baasrode	BEL	51.0500	4.1667	1.27
Balen	BEL	51.1667	5.1667	1.25
Boom	BEL	51.0833	4.3667	1.26
Brussels	BEL	50.8281	4.3153	1.23
Buggenhout	BEL	51.0167	4.2000	1.27
Burcht	BEL	51.2000	4.3333	1.24
Chatelineau	BEL	50.4167	4.5167	1.16
Dendermonde	BEL	51.0333	4.1167	1.27
Doel	BEL	51.3167	4.2667	1.20
Engis	BEL	50.5833	5.4000	1.14
Ertvelde	BEL	51.2000	3.7833	1.21

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Geel	BEL	51.1500	4.9667	1.25
Genk	BEL	50.9414	5.5019	1.21
Ghent	BEL	51.0881	3.7453	1.24
Grimbergen	BEL	50.9333	4.3667	1.26
Grobbendonk	BEL	51.2000	4.7500	1.22
Haren(BEL)	BEL	50.9000	4.3833	1.26
Hemiksem	BEL	51.1503	4.3358	1.26
Hermalle sous Huy	BEL	50.5500	5.3667	1.14
Hingene	BEL	51.1167	4.2667	1.26
Hoboken	BEL	51.1667	4.3333	1.27
Humbeek	BEL	50.9667	4.3833	1.26
Kallo	BEL	51.2500	4.2833	1.22
Kapelle op den Bos	BEL	51.0167	4.3667	1.26
Kruibeke	BEL	51.1667	4.3167	1.27
Kwaadmechelen	BEL	51.1000	5.1500	1.25
Lanaken	BEL	50.8833	5.6500	1.21
Langerbrugge	BEL	51.1167	3.7500	1.24
Liefkenshoek	BEL	51.3000	4.2833	1.20
Liege	BEL	50.6350	5.5700	1.16
Lillo	BEL	51.3000	4.3000	1.20
Lixhe	BEL	50.7333	5.7000	1.18
Maasmechelen	BEL	50.9667	5.7000	1.21
Marly	BEL	50.8833	4.3833	1.26
Mechelen	BEL	51.0333	4.4667	1.26
Melle	BEL	51.0000	3.8000	1.21
Merksem	BEL	51.2333	4.4833	1.24
Nameche	BEL	50.4667	4.9833	1.14
Niel	BEL	51.1167	4.3333	1.26
Nieuwpoort	BEL	51.1336	2.7483	1.05
Olen(BEL)	BEL	51.1500	4.8667	1.25
Ostend	BEL	51.2297	2.9225	1.17
Puurs	BEL	51.0667	4.2667	1.27
Rieme	BEL	51.1667	3.7667	1.23
Ruisbroek	BEL	50.7833	4.2833	1.23
Rumst	BEL	51.0667	4.4167	1.26
Rupelmonde	BEL	51.1333	4.2833	1.26
Schelle	BEL	51.1333	4.3167	1.26
Schoten	BEL	51.2500	4.5000	1.24
Seilles	BEL	50.5000	5.0833	1.06
Sint-Kruis-Winkel	BEL	51.1500	3.8000	1.23
Temse	BEL	51.1333	4.2167	1.27
Terdonk	BEL	51.1500	3.7833	1.23
Terhagen	BEL	51.0833	4.3833	1.26
Tessenderlo	BEL	51.0667	5.0833	1.25
Tielrode	BEL	51.1167	4.2167	1.27
Tisselt	BEL	51.0333	4.3667	1.26
Val St. Lambert	BEL	50.5667	5.4667	1.14
Verbrande Brug	BEL	50.9500	4.3833	1.26
Vilvoorde	BEL	50.9500	4.4167	1.26
Wielingen	BEL	51.3833	3.3833	0.96
Willebroek	BEL	51.0500	4.3500	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Wintham	BEL	51.1000	4.2833	1.26
Wondelgem	BEL	51.0833	3.7167	1.24
Zandvoorde	BEL	51.2167	2.9667	1.04
Zeebrugge	BEL	51.3231	3.2158	1.21
Zelzate	BEL	51.2000	3.8000	1.21
Zutendaal	BEL	50.9167	5.5667	1.21
Zwyndrecht(BEL)	BEL	51.2167	4.3333	1.24
La Paz(BOL)	BOL	-16.4833	-68.1500	0.81
Imbituba	BRA	-28.2336	-48.6528	1.28
Porto Laguna	BRA	-28.5000	-48.7500	1.28
Baddeck	CAN	46.1000	-60.7333	1.05
Bayside	CAN	45.1667	-67.1333	1.08
Bella Coola	CAN	52.3833	-126.7667	0.45
Botwood	CAN	49.1500	-55.3167	1.21
Bowmanville	CAN	43.9000	-78.6667	1.28
Boylston	CAN	45.4500	-61.5167	1.14
Britt	CAN	45.7667	-80.5833	1.11
Bruce Mines	CAN	46.2667	-83.7167	0.91
Chicoutimi	CAN	48.4333	-71.0833	1.24
Clareville	CAN	48.1667	-53.9500	0.92
Collingwood	CAN	44.5000	-80.2333	1.27
Corner Brook	CAN	48.9500	-57.9333	0.98
Country Hbr.	CAN	45.2167	-61.7333	1.13
Duncan Bay	CAN	50.0833	-125.2833	1.24
Fraser River Port	CAN	49.2000	-122.9167	1.16
Fredericton	CAN	45.9500	-66.6500	1.27
Glovertown	CAN	48.6667	-54.0500	1.10
Goderich	CAN	43.7500	-81.7500	1.24
Gold River(CAN)	CAN	49.6833	-126.1167	0.75
Goose Bay	CAN	53.3500	-60.4167	0.88
Grondines	CAN	46.7500	-72.0333	1.20
Hay River	CAN	60.8500	-115.7000	1.09
Houston(CAN)	CAN	54.4000	-126.6500	0.60
Iona	CAN	45.9667	-60.8000	0.96
Isaac's Hbr.	CAN	45.1667	-61.6500	1.23
Killarney	CAN	45.9667	-81.5167	1.01
Kitimat	CAN	54.0000	-128.7000	0.65
Lauzon	CAN	46.8167	-71.1500	1.27
Little Current	CAN	45.9667	-81.9167	1.28
Little Narrows	CAN	45.9833	-60.9833	0.99
Marathon	CAN	48.7500	-86.3833	0.53
Meldrum Bay	CAN	45.9167	-83.1000	0.94
Michipicoten Hbr.	CAN	47.9500	-84.9167	0.72
Midland	CAN	44.7500	-79.9333	1.24
Milltown	CAN	47.9000	-55.7833	1.04
Nelson(CAN)	CAN	49.4667	-117.3000	0.63
Oakville	CAN	43.4333	-79.6667	1.28
Ocean Falls	CAN	52.3500	-127.7000	0.42
Oshawa	CAN	43.8667	-78.8333	1.27
Owen Sound	CAN	44.5833	-80.9500	1.19
Parry Sound	CAN	45.3667	-80.0500	1.21



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Pointe de la Prairie	CAN	47.4232	-70.4051	0.82
Port Alberni	CAN	49.2333	-125.0000	0.74
Port Alice	CAN	50.3833	-127.4500	0.56
Port Credit	CAN	43.5500	-79.6000	1.21
Port Hope Simpson	CAN	52.5500	-56.3000	0.84
Powell River	CAN	49.8667	-124.5500	1.25
Richmond(CAN)	CAN	49.1500	-123.1667	1.25
Rigolet	CAN	54.1833	-58.4167	1.28
Roberts Bank	CAN	49.0167	-123.1333	1.24
Roddickton	CAN	50.8667	-56.1167	0.95
Rupert Inlet	CAN	50.5500	-127.5667	0.83
Sault Ste. Marie	CAN	46.5167	-84.3333	0.97
Sechelt	CAN	49.4667	-123.7500	1.26
Sonora	CAN	45.0667	-61.9167	1.12
Spragge	CAN	46.2167	-82.6667	1.12
St. Albans	CAN	47.8667	-55.8500	0.94
St. Stephen(CAN)	CAN	45.2000	-67.2833	1.18
Ste. Croix	CAN	46.6333	-71.7333	1.28
Stewart(CAN)	CAN	55.9167	-130.0000	0.48
Tahsis	CAN	49.9167	-126.6667	0.59
Thessalon	CAN	46.2500	-83.5500	0.93
Thunder Bay	CAN	48.4167	-89.2167	0.62
Tobermory(CAN)	CAN	45.2333	-81.6500	0.95
Toronto	CAN	43.6333	-79.3833	1.23
Vancouver(CAN)	CAN	49.2833	-123.1167	1.17
Weymouth(CAN)	CAN	44.4500	-66.0167	0.87
Whitby(CAN)	CAN	43.8500	-78.9167	1.21
Zeballos	CAN	49.9833	-126.8500	0.76
Antofagasta	CHL	-23.6333	-70.4333	1.11
Caldera(CHL)	CHL	-27.0667	-70.8833	1.08
Caleta Barquito	CHL	-26.3500	-70.6500	1.01
Caleta Coloso	CHL	-23.7500	-70.4667	1.10
Caleta Michilla	CHL	-22.7333	-70.2667	1.11
Caleta Patache	CHL	-20.8000	-70.2000	1.14
Caleta Patillos	CHL	-20.7500	-70.2000	1.14
Chanaral	CHL	-26.3500	-70.6333	1.01
Coronel	CHL	-37.0333	-73.1667	1.03
Cruz Grande	CHL	-29.4500	-71.3333	1.12
Huasco	CHL	-28.4500	-71.2333	1.10
Iquique	CHL	-20.2000	-70.1667	1.14
Lirquen	CHL	-36.7167	-72.9833	1.03
Los Vilos	CHL	-31.9167	-71.5000	1.03
Lota	CHL	-37.1000	-73.1667	1.03
Mejillones	CHL	-23.1000	-70.4667	1.21
Penco	CHL	-36.7167	-73.0000	1.12
Puerto Eden	CHL	-49.1500	-74.4500	0.92
Puerto Papudo	CHL	-32.5000	-71.4500	1.06
Puerto Ventanas	CHL	-32.7500	-71.5000	1.15
Quintero	CHL	-32.7667	-71.5000	1.15
San Antonio(CHL)	CHL	-33.6000	-71.6167	0.92
Taltal	CHL	-25.4000	-70.4833	1.03

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tocopilla	CHL	-22.0833	-70.2333	1.14
Valdivia	CHL	-39.8000	-73.2333	1.25
Bayuquan	CHN	40.2667	122.1000	0.73
Beiliang	CHN	38.9667	121.8000	0.67
Beilun	CHN	29.9333	121.8833	0.85
Caojing	CHN	30.7667	121.4000	0.89
Chongming	CHN	31.6167	121.3667	0.58
Chuansha	CHN	31.2000	121.6833	0.86
Dalian	CHN	38.9167	121.6833	0.75
Dongying	CHN	37.4500	118.4667	0.60
Fengxian	CHN	30.9167	121.4333	0.92
Hangzhou	CHN	30.2500	120.1667	0.95
Huangdao	CHN	36.0500	120.2167	0.64
Huanghua	CHN	38.3667	117.3333	0.52
Huludao	CHN	40.7167	120.9833	1.03
Jiaying	CHN	30.8500	120.8667	0.89
Jinshan	CHN	30.7167	121.3167	0.94
Jinxi	CHN	40.7667	120.7833	0.95
Jinzhou	CHN	40.7500	121.1000	0.92
Kunshan	CHN	31.3667	120.9333	0.86
Laizhou	CHN	37.4167	119.9500	0.77
Lanshan	CHN	35.0833	119.3500	0.46
Lianyungang	CHN	34.7333	119.4500	0.45
Longkou	CHN	37.6833	120.3000	0.77
Longyan	CHN	37.4000	122.6167	0.43
Luoqing	CHN	31.4500	121.3000	0.59
Majishan	CHN	30.6833	122.4167	0.94
Matsu Is.	CHN	26.1500	119.9333	1.24
Nanhui	CHN	31.0500	121.7500	0.74
Penglai	CHN	37.8167	120.7167	0.70
Pinghu	CHN	30.6833	121.0000	0.91
Qianwan	CHN	35.9833	120.1833	0.62
Qingdao	CHN	36.0833	120.3000	0.64
Qinhuangdao	CHN	39.9000	119.6000	0.88
Rizhao	CHN	35.4833	119.4833	0.59
Rongcheng	CHN	37.1500	122.4000	0.54
Shanghai	CHN	31.2500	121.5000	0.63
Shanhaiguan	CHN	39.9864	119.8292	0.88
Shidao	CHN	36.8833	122.4667	0.44
Shijiusuo	CHN	35.3833	119.5667	0.48
Songxia	CHN	25.6833	119.5833	1.27
Taicang	CHN	31.4500	121.0833	0.86
Tanggu	CHN	39.0000	117.6500	0.55
Tangshan	CHN	39.2167	119.0167	0.55
Tianjin	CHN	39.1000	117.1667	0.53
Weihai	CHN	37.5000	122.1500	0.53
Xiamen	CHN	24.4500	118.0667	1.27
Xiaoshan	CHN	30.1500	120.2500	0.99
Xiashi	CHN	30.5333	120.6833	0.95
Xingang	CHN	38.9833	117.7500	0.56
Yantai	CHN	37.5667	121.4333	0.64

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Zhangjiabu	CHN	37.0167	122.1833	1.00
Zhangzhou	CHN	24.4167	118.0500	1.27
Zhapu	CHN	30.5833	121.0833	0.95
Zhenhai	CHN	29.9667	121.7000	0.88
Zhuanghe	CHN	39.6833	122.9667	0.89
Arguineguin	CNI	27.7500	-15.6667	1.28
Karavostassi	CYP	35.1333	32.8167	0.81
Paphos	CYP	34.7500	32.4167	1.09
Xeros Pier	CYP	35.1333	32.8333	0.81
Chvaletice	CZE	50.0167	15.4333	1.22
Usti nad Labem	CZE	50.6667	14.0333	1.15
Aken	DEU	51.8500	12.0333	1.20
Andernach	DEU	50.4167	7.3833	1.24
Anklam	DEU	53.8667	13.6833	1.05
Aschaffenburg	DEU	49.9500	9.1667	1.26
Baltrum	DEU	53.7333	7.4000	1.29
Bardenfleth	DEU	53.1500	8.5500	1.24
Barth	DEU	54.3667	12.7333	0.90
Bendorf	DEU	50.4167	7.5833	1.22
Bensersiel	DEU	53.6833	7.5833	1.15
Berlin	DEU	52.5333	13.4167	1.25
Berne(DEU)	DEU	53.1833	10.5000	1.05
Blexen	DEU	53.5333	8.5333	1.28
Blumenthal	DEU	53.1833	8.5667	1.25
Bodenwerder	DEU	51.9667	9.5000	1.01
Boizenburg	DEU	53.3833	10.7333	1.05
Borkum	DEU	53.5833	6.6667	1.29
Brake	DEU	53.3333	8.4833	1.25
Brandenburg	DEU	52.4000	12.5167	1.21
Braunschweig	DEU	52.2500	10.5000	1.12
Bremen	DEU	53.0833	8.7833	1.24
Bremerhaven	DEU	53.5500	8.5833	1.28
Brohl	DEU	50.4167	7.3000	1.11
Burgstaaken	DEU	54.4167	11.2000	0.96
Castrop Rauxel	DEU	51.5500	7.3000	1.19
Deggendorf	DEU	48.8333	12.9667	1.24
Dortmund	DEU	51.5333	7.4500	1.18
Duisburg	DEU	51.4333	6.7500	1.25
Dusseldorf	DEU	51.2500	6.7667	1.28
Eckernforde	DEU	54.4833	9.8500	1.18
Einswarden	DEU	53.5167	8.5167	1.28
Eisenhuttenstadt	DEU	52.1500	14.6167	1.25
Elsfleth	DEU	53.2333	8.4667	1.25
Emmerich	DEU	51.8500	6.2500	1.13
Erfstadt	DEU	50.8000	6.7500	1.23
Essen	DEU	51.4500	7.0167	1.20
Farge	DEU	53.2000	8.5167	1.25
Flensburg	DEU	54.8000	9.4333	1.25
Ganspe	DEU	53.2000	8.5500	1.25
Geesthacht	DEU	53.4333	10.3833	1.04
Gelsenkirchen	DEU	51.5000	7.0833	1.20

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Greifswald	DEU	54.1000	13.3833	0.92
Gromitz	DEU	54.1500	10.9833	0.95
Haren(DEU)	DEU	52.8000	7.2500	0.97
Harlesiel	DEU	53.6333	7.7500	1.19
Havelberg	DEU	52.8333	12.0667	1.15
Heiligenhafen	DEU	54.3667	10.9833	0.96
Heringsdorf	DEU	53.9667	14.1667	1.17
Hohenhorn	DEU	53.4667	10.3667	1.04
Holtenau	DEU	54.3667	10.1500	1.18
Homburg	DEU	51.4500	6.7167	1.25
Hoya	DEU	52.8000	9.1333	1.08
Ibbenburen	DEU	52.2833	7.7333	1.07
Juist	DEU	53.6833	7.0000	1.12
Kappeln	DEU	54.6667	9.9333	1.20
Kiel	DEU	54.3167	10.1333	1.18
Koblenz	DEU	50.3333	7.5833	1.16
Krefeld	DEU	51.3333	6.5667	1.25
Kroslin	DEU	54.1333	13.7500	0.72
Laboe	DEU	54.4000	10.2167	1.19
Ladebow	DEU	54.1000	13.4500	0.92
Lahnstein	DEU	50.3000	7.6167	1.16
Lauenburg	DEU	53.3833	10.5500	1.05
Lauterbach	DEU	54.3333	13.5167	0.67
Leer	DEU	53.2167	7.4500	1.00
Leeseringen	DEU	52.5833	9.1333	1.10
Lemwerder	DEU	53.1667	8.6000	1.24
Leverkusen	DEU	51.0167	7.0333	1.20
Lubeck	DEU	53.8667	10.6667	1.11
Lubmin	DEU	54.1167	13.6000	0.95
Magdeburg	DEU	52.1333	11.6167	1.16
Minden	DEU	52.3000	8.9000	1.10
Monheim	DEU	51.1167	6.8167	1.28
Moselkern	DEU	50.1833	7.3667	1.18
Mukran	DEU	54.4833	13.5833	0.62
Neckarsteinach	DEU	49.4333	8.8000	1.24
Neuss	DEU	51.2000	6.7000	1.28
Neuss/Dusseldorf	DEU	51.2000	6.7000	1.28
Neustadt	DEU	54.1000	10.8167	1.11
Neuwied	DEU	50.4333	7.4833	1.24
Nienburg	DEU	52.6333	9.2167	1.10
Norddeich	DEU	53.6333	7.1667	1.17
Nordenham	DEU	53.4833	8.4833	1.27
Norderney	DEU	53.7000	7.1667	1.12
Nuremberg	DEU	49.4500	11.0500	1.18
Oldenburg	DEU	53.1500	8.2333	1.23
Oldersum	DEU	53.3167	7.3333	1.10
Olpenitz	DEU	54.6500	9.9833	1.07
Orsoy	DEU	51.5333	6.6833	1.22
Orth	DEU	54.4500	11.0500	0.96
Oslebshausen	DEU	53.1333	8.7333	1.24
Osnabruck	DEU	52.2667	8.0333	1.05

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Papenburg	DEU	53.0833	7.3833	1.01
Passau	DEU	48.5833	13.4667	1.17
Peenemunde	DEU	54.1167	13.7667	0.72
Peine	DEU	52.3167	10.2167	1.10
Puttgarden	DEU	54.5000	11.2333	1.14
Regensburg	DEU	49.0167	12.1167	1.15
Remagen	DEU	50.5667	7.2167	1.21
Rheinhausen	DEU	51.4167	6.7333	1.25
Rinteln	DEU	52.2000	9.0833	1.08
Rosslau	DEU	51.9000	12.2667	1.19
Rostock	DEU	54.1500	12.1000	0.97
Ruhrort	DEU	51.4500	6.7333	1.25
Salzgitter	DEU	52.2167	10.3333	1.10
Sassnitz	DEU	54.5167	13.6333	0.62
Schleswig	DEU	54.5167	9.5667	1.14
Schlutup	DEU	53.8833	10.7833	1.13
Stralsund	DEU	54.3167	13.1000	0.92
Sturzelberg	DEU	51.1167	6.8000	1.28
Stuttgart	DEU	48.7833	9.2000	1.25
Tangermunde	DEU	52.5667	11.9667	1.15
Travemunde	DEU	53.9667	10.9000	1.13
Ueckermunde	DEU	53.7333	14.2833	0.75
Urdingen	DEU	51.3500	6.6667	1.24
Vallendar	DEU	50.4000	7.6167	1.22
Vierow	DEU	54.1000	13.5667	0.95
Walsum	DEU	51.5333	6.6833	1.22
Warnemunde	DEU	54.1833	12.0833	1.01
Weissenturm	DEU	50.4167	7.4833	1.24
Wesel	DEU	51.6500	6.6000	1.22
Wesermunde	DEU	53.5333	8.5833	1.28
Wesseling	DEU	50.8333	7.0000	1.24
Westerende-Kirchloog	DEU	53.4333	7.4167	1.07
Wismar	DEU	53.9000	11.4667	1.14
Wolgast	DEU	54.0500	13.7833	0.72
Wurzburg	DEU	49.7833	9.9333	1.10
Aabenraa	DNK	55.0333	9.4333	1.21
Aarosund	DNK	55.2667	9.7167	1.21
Aeroskobing	DNK	54.8833	10.4167	1.07
Aggersund	DNK	57.0167	9.2833	0.67
Allinge	DNK	55.2833	14.8000	0.53
Anholt	DNK	56.7167	11.5167	1.23
Asnaesvaerkets Havn	DNK	55.6667	11.0833	1.27
Assens	DNK	55.2667	9.9000	1.21
Avedore	DNK	55.6000	12.4833	0.94
Bagenkop	DNK	54.7500	10.6667	1.00
Ballen	DNK	55.8167	10.6500	1.19
Bandholm	DNK	54.8333	11.5000	1.18
Bogense	DNK	55.5667	10.0833	1.21
Copenhagen	DNK	55.7000	12.6167	0.94
Dragor	DNK	55.5833	12.6833	0.94
Ebeltoft	DNK	56.2000	10.6667	1.24

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Egernsund	DNK	54.9000	9.6000	1.25
Elsinore	DNK	56.0333	12.6167	1.15
Endelave	DNK	55.7500	10.2667	1.17
Enstedvaerkets Havn	DNK	55.0167	9.4333	1.21
Faaborg	DNK	55.1000	10.2333	1.14
Fakse Ladeplads	DNK	55.2167	12.1667	0.97
Fredericia	DNK	55.5667	9.7500	1.25
Fur	DNK	56.8333	9.0000	0.58
Gedser	DNK	54.5667	11.9333	0.99
Glatved	DNK	56.3000	10.8500	1.26
Graasten	DNK	54.9167	9.6167	1.25
Grenaa	DNK	56.4133	10.9131	1.26
Gudhjem	DNK	55.2167	14.9667	0.80
Guldborg	DNK	54.8667	11.7500	1.16
Gulfhavn	DNK	55.2000	11.2500	1.18
Haderslev	DNK	55.2500	9.5000	1.21
Halsskov	DNK	55.3333	11.1000	1.05
Hammeren	DNK	55.2833	14.7500	0.53
Hammerhavn	DNK	55.2667	14.7500	0.53
Hardeshoj	DNK	55.0000	9.6833	1.22
Hasle	DNK	55.1833	14.7000	0.55
Hellerup	DNK	55.7333	12.5833	0.94
Holbaek	DNK	55.7167	11.7167	1.27
Horsens	DNK	55.8500	9.8667	1.25
Hundested	DNK	55.9667	11.8500	1.05
Hvalpsund	DNK	56.6833	9.2000	0.82
Juelsminde	DNK	55.7167	10.0167	1.21
Kalundborg	DNK	55.6833	11.0833	1.26
Karrebaeksminde	DNK	55.1667	11.6333	1.11
Kastrup	DNK	55.6333	12.6500	0.94
Katholm	DNK	54.9333	9.8333	1.27
Kerteminde	DNK	55.4500	10.6667	1.20
Koge	DNK	55.4500	12.2000	1.15
Kolby Kaas	DNK	55.8000	10.5333	1.19
Kolding	DNK	55.5000	9.5000	1.23
Korsor	DNK	55.3333	11.1333	1.05
Kyndby	DNK	55.8167	11.8833	1.05
Lindo	DNK	55.4667	10.5333	1.20
Logstor	DNK	56.9667	9.2500	0.82
Lyngs Odde	DNK	55.5167	9.7500	1.24
Marstal	DNK	54.8500	10.5167	1.04
Masnedo	DNK	55.0000	11.9000	1.14
Masnedsund	DNK	55.0000	11.9000	1.14
Middelfart	DNK	55.5000	9.7333	1.24
Naestved	DNK	55.2333	11.7500	1.15
Nakskov	DNK	54.8333	11.1333	1.17
Nekso	DNK	55.0667	15.1500	0.65
Nyborg	DNK	55.3000	10.7833	1.08
Nyhavn	DNK	55.6833	12.5833	0.94
Nykobing(Falster)	DNK	54.7667	11.8667	1.13
Nykobing(Mors)	DNK	56.8000	8.8667	0.68

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Nykobing(Sjaelland)	DNK	55.9167	11.6833	1.24
Odden	DNK	55.9667	11.3667	1.11
Odense	DNK	55.4167	10.3833	1.19
Omo	DNK	55.1667	11.1500	1.01
Orehoved	DNK	54.9500	11.8500	1.14
Praesto	DNK	55.1167	12.0333	0.97
Ringsted	DNK	55.8833	12.5333	0.95
Rodbyhavn	DNK	54.6500	11.3500	1.21
Ronne	DNK	55.1000	14.7000	0.55
Rudkobing	DNK	54.9333	10.7167	1.04
Sakskobing	DNK	54.8000	11.6333	1.17
Skaelskor	DNK	55.2500	11.2833	1.18
Skaerbaek	DNK	55.5167	9.6167	1.24
Skarrehage	DNK	56.9500	8.8667	0.71
Skive	DNK	56.5667	9.0333	0.82
Snaptun	DNK	55.8167	10.0333	1.29
Soby	DNK	54.9500	10.2667	1.07
Sonderborg	DNK	54.9167	9.7833	1.27
Sprogo	DNK	55.3333	10.9667	1.08
Stege	DNK	54.9833	12.2833	0.62
Stevns Pier	DNK	55.3167	12.4500	0.95
Stigsnaesvaerkets Havn	DNK	55.2167	11.2500	1.18
Strib	DNK	55.5333	9.7667	1.25
Struer	DNK	56.5000	8.6000	0.91
Stubbekobing	DNK	54.8833	12.0333	0.48
Svaneke	DNK	55.1333	15.1500	0.65
Svendborg	DNK	55.0500	10.6167	1.15
Tejn	DNK	55.2333	14.8333	0.53
Thisted	DNK	56.9500	8.7000	0.72
Tuborg Havn	DNK	55.7167	12.5833	0.94
Vang	DNK	55.2667	14.7500	0.53
Vedbaek	DNK	55.8500	12.5500	0.95
Vejle	DNK	55.7167	9.5500	1.24
Vordingborg	DNK	55.0000	11.9000	1.14
Algiers	DZA	36.7706	3.0531	0.98
Annaba	DZA	36.8997	7.7567	0.84
Arzew	DZA	35.8606	-0.3097	0.97
Bejaia	DZA	36.7217	5.0739	0.90
Beni Saf	DZA	35.3008	-1.3906	1.01
Cherchell	DZA	36.6081	2.1931	0.99
Collo	DZA	37.0089	6.5633	1.05
Dellys	DZA	36.9197	3.8936	0.86
Djen Djen	DZA	36.8208	5.7700	1.03
Ghazaouet	DZA	35.0981	-1.8578	1.01
Mers el Kebir	DZA	35.7333	-0.7000	0.97
Mostaganem	DZA	35.9347	0.0808	1.01
Oran	DZA	35.7058	-0.6422	0.96
Skikda	DZA	36.8778	6.9439	0.91
Tenes	DZA	36.5186	1.3197	0.97
Aguilas	ESP	37.4000	-1.5667	0.87
Alcanar	ESP	40.5833	0.5500	0.74

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Alcudia	ESP	39.8333	3.1333	1.01
Algeciras	ESP	36.1167	-5.4333	1.14
Alicante	ESP	38.3333	-0.4833	0.96
Almeria	ESP	36.8333	-2.5000	1.03
Almunecar	ESP	36.7333	-3.6833	0.60
Astillero	ESP	43.4000	-3.8167	1.21
Aviles	ESP	43.5833	-5.9333	0.90
Barbate	ESP	36.1667	-5.9833	1.00
Barcelona	ESP	41.3500	2.1667	0.57
Bermeo	ESP	43.4167	-2.7167	0.70
Bilbao	ESP	43.3106	-3.0286	1.01
Burela	ESP	43.6500	-7.3333	1.03
Burriana	ESP	39.8667	-0.0667	0.82
Cadiz	ESP	36.5000	-6.3333	1.03
Camarinas	ESP	43.1167	-9.1833	1.02
Caraminal	ESP	42.6000	-8.9333	1.16
Carboneras	ESP	37.0000	-1.8833	0.97
Carino	ESP	43.7333	-7.8500	1.10
Cartagena(ESP)	ESP	37.5833	-0.9833	0.97
Castellon	ESP	39.9667	0.0167	0.84
Castro Urdiales	ESP	43.4000	-3.2333	0.71
Castropol	ESP	43.5333	-7.0167	0.96
Cee	ESP	42.9500	-9.1667	1.19
Ceuta	ESP	35.8833	-5.3167	1.15
Cillero	ESP	43.6833	-7.6000	1.21
Ciudadela	ESP	40.0000	3.8333	0.89
Corcubion	ESP	42.9500	-9.1833	1.19
Corunna	ESP	43.3833	-8.3667	0.77
Cudillero	ESP	43.5500	-6.1500	0.82
Cullera	ESP	39.1833	-0.2167	0.92
Denia	ESP	38.8333	0.1167	0.94
Escombreras	ESP	37.5500	-0.9667	0.97
Ferrol	ESP	43.4667	-8.2667	1.24
Formentera	ESP	38.6500	1.5833	0.96
Fuenterrabia	ESP	43.3667	-1.8000	1.23
Gandia	ESP	39.0000	-0.1500	0.92
Garrucha	ESP	37.1667	-1.8333	0.97
Gijon	ESP	43.5500	-5.6667	0.92
Guetaria	ESP	43.3000	-2.2000	0.73
Ibiza	ESP	38.9000	1.4667	0.94
La Canal	ESP	38.8333	1.3833	0.94
La Savina	ESP	38.7333	1.4167	0.94
Lage	ESP	43.2167	-9.0000	0.84
Lequeitio	ESP	43.3667	-2.4833	0.78
Mahon	ESP	39.8667	4.3000	1.01
Malaga	ESP	36.7178	-4.4250	0.81
Melilla	ESP	35.2833	-2.9333	1.00
Motril	ESP	36.7167	-3.5167	1.01
Muros	ESP	42.7500	-9.0167	1.17
Navia	ESP	43.5500	-6.7167	0.93
Ondarroa	ESP	43.3167	-2.4167	0.78



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Orio	ESP	43.2667	-2.1167	1.28
Ortigueira	ESP	43.6833	-7.8333	1.18
Palamos	ESP	41.8333	3.1333	0.47
Palma(Maj)	ESP	39.5697	2.6256	0.57
Pasajes	ESP	43.3333	-1.9333	0.62
Porto Colom	ESP	39.4333	3.2500	1.01
Puerto Banus	ESP	36.4833	-4.9333	0.47
Puerto de Vega	ESP	43.5667	-6.6333	0.93
Puerto Pollensa	ESP	39.8833	3.0667	1.01
Ribadeo	ESP	43.5333	-7.0333	1.00
Ribadesella	ESP	43.4667	-5.0667	0.68
Roquetas	ESP	36.7500	-2.6167	1.03
Rosas	ESP	42.2500	3.1833	0.37
Rota	ESP	36.6167	-6.3667	1.03
Sada	ESP	43.3667	-8.2500	1.16
Sagunto	ESP	39.6500	-0.2167	0.89
San Antonio(ESP)	ESP	38.9833	1.3000	0.92
San Carlos de la Rapita	ESP	40.6000	0.6000	0.74
San Ciprian	ESP	43.7000	-7.4500	1.03
San Esteban de Pravia	ESP	43.5667	-6.0833	0.82
San Feliu de Guixols	ESP	41.7667	3.0167	0.47
San Pedro del Pinatar	ESP	37.8167	-0.7500	0.97
San Sebastian(ESP)	ESP	43.3167	-1.9833	0.62
Santa Eugenia de Riveira	ESP	42.5500	-8.9833	1.07
Santa Pola	ESP	38.2000	-0.5667	0.97
Santander	ESP	43.4667	-3.7667	0.73
Santona	ESP	43.4667	-3.4667	0.71
Tapia de Casariego	ESP	43.5667	-6.9333	0.96
Tarifa	ESP	36.0000	-5.6000	0.94
Tarragona	ESP	41.1000	1.2333	0.65
Torre Vieja	ESP	37.9667	-0.6833	0.97
Valencia	ESP	39.4500	-0.3000	0.90
Vallcarca	ESP	41.2333	1.8667	0.47
Villanueva y Geltru	ESP	41.2167	1.7333	0.79
Villaviciosa	ESP	43.5333	-5.3833	0.94
Vinaroz	ESP	40.4667	0.4667	0.78
Zumaya	ESP	43.3000	-2.2500	0.73
Bekker	EST	59.4500	24.6667	0.80
Dirhami	EST	59.2167	23.5000	0.52
Forby	EST	59.0000	23.1667	0.56
Haapsalu	EST	58.9500	23.5333	0.81
Heltermaa	EST	58.8667	23.0667	0.69
Kuivastu	EST	58.5833	23.4000	0.71
Kunda	EST	59.5167	26.5500	0.58
Lehtma	EST	59.0500	22.7000	0.51
Loksa	EST	59.5833	25.7167	0.56
Meeruse	EST	59.4500	24.6833	0.81
Miiduranna	EST	59.5000	24.8167	0.49
Montu	EST	57.9500	22.1167	0.67
Muuga	EST	59.5000	24.9667	0.49
Narva Joesuu	EST	59.4667	28.0500	0.84

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Paldiski	EST	59.3500	24.0500	0.49
Paljassaare	EST	59.4500	24.7000	0.81
Parnu	EST	58.3833	24.4833	0.89
Peetri	EST	59.4500	24.7333	0.81
Prangli Is.	EST	59.6333	25.0000	0.54
Rohukula	EST	58.9000	23.4167	0.69
Roomassaare	EST	58.2167	22.5167	0.71
Saaremaa Harbour	EST	58.5333	22.2333	0.67
Sillamae	EST	59.4000	27.7833	0.84
Tallinn	EST	59.4500	24.7500	0.81
Veere	EST	58.4500	22.0500	0.75
Virtsu	EST	58.5833	23.5500	0.81
Dalsbruk	FIN	60.0333	22.5167	0.78
Frojdbole	FIN	60.1500	19.9167	0.37
Galtby	FIN	60.1833	21.5833	0.48
Hamina	FIN	60.5667	27.1833	0.89
Hanko	FIN	59.8167	22.9667	0.49
Helsinki	FIN	60.1667	24.9500	0.90
Houtskar	FIN	60.2167	21.3667	0.47
Imatra	FIN	61.1667	28.8333	0.98
Inkoo	FIN	60.0500	24.0167	0.72
Isnas	FIN	60.4000	26.0000	0.81
Joensuu	FIN	62.6000	29.7500	0.93
Joutseno	FIN	61.1333	28.4833	0.98
Kalajoki	FIN	64.2500	23.9333	0.40
Kantvik	FIN	60.0833	24.3833	0.73
Kaskinen	FIN	62.3833	21.2167	0.41
Kaukas	FIN	61.0667	28.2167	0.98
Kaukopaa	FIN	61.2500	28.8667	0.95
Kemi	FIN	65.7333	24.5667	0.73
Kokkila	FIN	60.3333	22.8667	0.77
Kokkola	FIN	63.8333	23.1333	0.42
Korpo	FIN	60.1500	21.5500	0.48
Kotka	FIN	60.4667	26.9500	0.62
Koverhar	FIN	59.8833	23.2167	0.48
Kristiinankaupunki	FIN	62.2667	21.3167	0.75
Kronvik	FIN	63.0500	21.5167	0.71
Kuopio	FIN	62.8500	27.5000	0.95
Kustavi	FIN	60.5667	21.3333	0.72
Kuuslahti	FIN	63.1167	27.7500	0.98
Lapaluoto	FIN	64.6667	24.4167	0.72
Lappeenranta	FIN	61.0667	28.2500	0.98
Lappohja	FIN	59.9000	23.2667	0.47
Lappvik	FIN	59.9000	23.2667	0.47
Lauritsala	FIN	61.0833	28.3333	0.98
Loviisa	FIN	60.4500	26.2333	0.84
Luvia	FIN	61.3333	21.5667	0.72
Mantyluoto	FIN	61.5833	21.5000	0.75
Martinniemi	FIN	65.2167	25.2833	0.76
Maxmo	FIN	63.2000	22.0333	0.68
Merikarvia	FIN	61.8500	21.4667	0.70

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Mjosund(FIN)	FIN	60.2167	22.4667	0.81
Mustola	FIN	61.0667	28.3000	0.98
Naantali	FIN	60.4667	22.0167	0.80
Nyhamn	FIN	62.1667	21.3333	0.75
Olkiluoto	FIN	61.2500	21.5000	0.74
Oulu	FIN	65.0000	25.4667	0.78
Parainen	FIN	60.2833	22.3000	0.79
Pateniemi	FIN	65.0833	25.4000	0.77
Perno	FIN	60.4500	26.0500	0.83
Pietarsaari	FIN	63.6833	22.7000	0.44
Pori	FIN	61.4833	21.8000	0.72
Puhos	FIN	62.1000	29.9167	0.94
Raahe	FIN	64.6833	24.4833	0.67
Rahja	FIN	64.2000	23.7333	0.69
Rauma	FIN	61.1333	21.5000	0.72
Ristiina	FIN	61.5333	27.4167	0.93
Roytta	FIN	65.7667	24.1500	0.71
Salo	FIN	60.3833	23.1667	0.76
Savonlinna	FIN	61.9000	28.9167	0.96
Siilinjarvi	FIN	63.0833	27.6667	0.97
Sipoo	FIN	60.3667	25.3167	0.81
Skogby	FIN	59.9167	23.3167	0.47
Skoldvik	FIN	60.3000	25.5500	0.84
Skuru	FIN	60.1000	23.5500	0.75
Stromma	FIN	60.1833	22.9000	0.77
Summa	FIN	60.5333	27.1167	0.89
Svartback	FIN	60.2833	25.5333	0.84
Taalintehdas	FIN	60.0167	22.5167	0.78
Tammisaari	FIN	59.9833	23.4333	0.77
Teijo	FIN	60.2500	22.9500	0.77
Tolkkinen	FIN	60.3333	25.5833	0.84
Tornio	FIN	65.8500	24.1500	0.74
Tupavuori	FIN	60.4500	22.0667	0.80
Turku	FIN	60.4333	22.2167	0.81
Uusikaupunki	FIN	60.8000	21.4000	0.74
Vaasa	FIN	63.1000	21.6167	0.71
Valkom	FIN	60.4167	26.2667	0.84
Varkaus	FIN	62.3333	27.8333	0.97
Vartsala	FIN	60.3333	23.0167	0.76
Vastanfjard	FIN	60.0500	22.6500	0.78
Veitsiluoto	FIN	65.7000	24.6167	0.73
Abbeville	FRA	50.1000	1.8500	1.16
Ajaccio	FRA	41.9167	8.7333	0.51
Annav sous Lens	FRA	50.4667	2.8667	1.19
Antibes	FRA	43.5833	7.1333	0.49
Arcachon	FRA	44.6667	-1.1667	0.95
Bastia	FRA	42.7000	9.4500	0.46
Beaulieu	FRA	43.7000	7.3333	0.82
Bethune	FRA	50.5333	2.6333	1.14
Biarriz	FRA	43.5000	-1.5667	0.63
Bonifacio	FRA	41.3833	9.1000	0.67

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Boulogne	FRA	50.7333	1.6167	1.25
Calais	FRA	50.9667	1.8500	0.98
Calvi	FRA	42.5833	8.8000	0.79
Camaret	FRA	48.2833	-4.6000	1.02
Cancale	FRA	48.6667	-1.8500	1.23
Cannes	FRA	43.5167	7.0167	0.49
Cassis	FRA	43.2167	5.5333	0.32
Cherbourg	FRA	49.6411	-1.6142	1.09
Collioure	FRA	42.5333	3.0833	0.89
Concarneau	FRA	47.8667	-3.9167	0.99
Courseulles sur Mer	FRA	49.3333	-0.4500	1.24
Deauville	FRA	49.3500	0.0667	0.95
Dieppe	FRA	49.9333	1.0833	0.97
Douarnenez	FRA	48.1000	-4.3333	1.01
Duclair	FRA	49.4500	0.8667	1.28
Dunkirk	FRA	51.0500	2.3500	1.20
Elbeuf	FRA	49.2833	1.1167	1.27
Etang de Berre	FRA	43.4833	5.1667	0.28
Fos	FRA	43.3833	4.8500	0.30
Gaillon	FRA	49.1667	1.3167	1.27
Grand Couronne	FRA	49.3667	0.9833	1.28
Granville	FRA	48.8333	-1.6000	1.27
Gravelines	FRA	50.9833	2.1333	1.22
Gujan-Mestras	FRA	44.6333	-1.0500	1.17
Harfleur	FRA	49.5000	0.2000	1.03
Hendaye	FRA	43.3667	-1.7667	1.10
Honfleur	FRA	49.4167	0.2333	0.95
Hyeres-Plage	FRA	43.0833	6.1500	0.60
Ile Rousse	FRA	42.6500	8.9333	0.79
La Ciotat	FRA	43.1667	5.6000	0.36
La Mailleraye	FRA	49.4833	0.7667	1.23
La Nouvelle	FRA	43.0167	3.0667	0.36
La Pallice	FRA	46.1667	-1.2333	0.49
La Rochelle	FRA	46.1500	-1.1500	0.53
La Seyne	FRA	43.1000	5.8833	0.53
La Teste	FRA	44.6167	-1.1500	0.88
La Trinite sur Mer	FRA	47.5833	-3.0333	0.83
Landerneau	FRA	48.4333	-4.2500	1.26
Lavera	FRA	43.3833	5.0000	0.90
Le Guildo	FRA	48.6333	-2.2333	1.26
Le Lavandou	FRA	43.1333	6.3667	0.45
Le Palais	FRA	47.3500	-3.1667	1.16
Le Trait	FRA	49.4667	0.8000	1.23
Le Treport	FRA	50.0667	1.3667	0.98
Les Andelys	FRA	49.2500	1.4333	1.26
Lille	FRA	50.6500	3.0833	1.16
Lille(FRA)	FRA	50.6500	3.0833	1.16
Lillebonne	FRA	49.5167	0.5333	1.12
Loctudy	FRA	47.8333	-4.1667	0.95
Mardyck	FRA	51.0000	2.2333	1.20
Marenes	FRA	45.8167	-1.1000	0.76

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Marseilles	FRA	43.3333	5.3500	0.32
Martigues	FRA	43.4000	5.0500	0.90
Morgat	FRA	48.2167	-4.5000	1.02
Morlaix	FRA	48.6333	-3.8833	1.03
Nice	FRA	43.7000	7.2833	0.82
Noyelles	FRA	50.1833	1.7167	1.24
Ouistreham	FRA	49.2833	-0.2500	1.27
Paluden	FRA	48.5833	-4.5167	1.23
Petit Couronne	FRA	49.3667	1.0000	1.28
Piriac	FRA	47.3833	-2.5500	1.08
Pornic	FRA	47.1167	-2.1167	1.07
Porquerolles	FRA	42.9833	6.2000	0.63
Port de Bouc	FRA	43.4000	4.9833	0.90
Port Jerome	FRA	49.4667	0.5333	1.20
Port Joinville	FRA	46.7333	-2.3500	1.05
Port Vendres	FRA	42.5167	3.1167	0.89
Porto Vecchio	FRA	41.6000	9.2833	0.90
Propriano	FRA	41.6667	8.9000	0.54
Quiberon	FRA	47.5000	-3.1167	0.81
Radicatel	FRA	49.4167	0.4833	1.22
Roscoff	FRA	48.7167	-3.9833	0.96
Rouen	FRA	49.4833	1.0833	1.27
Sables d'Olonne	FRA	46.5000	-1.8000	0.65
Saint Brevin	FRA	47.2500	-2.1500	0.68
Sanary-sur-Mer	FRA	43.1167	5.8000	0.30
Sete	FRA	43.4000	3.7000	0.32
St. Etienne du Rouvray	FRA	49.3667	1.1167	1.27
St. Jean de Luz	FRA	43.4000	-1.6667	0.61
St. Malo	FRA	48.6494	-2.0253	1.26
St. Nazaire	FRA	47.2667	-2.2000	0.70
St. Tropez	FRA	43.2667	6.6333	0.55
St. Wandrille	FRA	49.5333	0.7500	1.17
Toulon	FRA	43.1167	5.9167	0.53
Vernon	FRA	49.0833	1.4833	1.29
Villefranche	FRA	43.7000	7.3167	0.82
Villequier	FRA	49.5000	0.6667	1.23
Acton Grange	GBR	53.3667	-2.6333	0.95
Alloa	GBR	56.1000	-3.8000	0.76
Althorpe Wharf	GBR	53.5667	-0.7333	0.97
Anderton	GBR	53.2667	-2.5167	0.96
Avonmouth	GBR	51.5000	-2.7167	1.10
Aylesford	GBR	51.2667	0.4667	1.06
Barnstaple	GBR	51.0833	-4.0667	1.21
Barrow on Humber	GBR	53.6833	-0.3833	1.20
Barton	GBR	53.4667	-2.3667	0.99
Barton on Humber	GBR	53.7000	-0.4333	1.15
Beckingham	GBR	53.4000	-0.8333	1.00
Beverley(GBR)	GBR	53.8500	-0.4333	0.90
Bideford	GBR	51.0167	-4.2000	1.25
Bird Port	GBR	51.5667	-2.9667	1.17
Bonawe	GBR	56.4333	-5.2333	0.79

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bo'ness	GBR	56.0167	-3.6000	0.94
Bowling	GBR	55.9333	-4.5000	0.69
Bridgwater	GBR	51.1667	-3.0000	1.14
Bridport(GBR)	GBR	50.7167	-2.7667	1.14
Brightlingsea	GBR	51.7833	1.0333	1.25
Brighton(GBR)	GBR	50.8167	-0.1000	1.14
Bristol	GBR	51.4500	-2.6333	1.15
Briton Ferry	GBR	51.6167	-3.8333	1.09
Burton upon Stather	GBR	53.6500	-0.6833	0.97
Canvey Is.	GBR	51.5167	0.6333	0.99
Cardiff	GBR	51.4667	-3.1833	1.13
Charlestown(England)	GBR	50.3333	-4.7500	1.15
Charlestown(Scotland)	GBR	56.0333	-3.5000	1.09
Chepstow	GBR	51.6500	-2.6667	1.18
Christchurch	GBR	50.7333	-1.7500	1.08
Clacton	GBR	51.8000	1.1500	1.25
Coleraine	GBR	55.1333	-6.6667	1.05
Connah's Quay	GBR	53.2333	-3.0667	1.21
Corpach	GBR	56.8333	-5.1167	0.66
Coulport	GBR	56.0667	-4.8833	0.45
Cowes	GBR	50.7667	-1.3000	0.98
Crombie	GBR	56.0333	-3.5667	0.94
Cromer	GBR	52.9333	1.3000	1.16
Dalbeattie	GBR	54.9333	-3.8167	0.84
Dalmuir	GBR	55.9000	-4.4333	0.71
Dartmouth	GBR	50.3500	-3.5833	1.08
Dean Quarry	GBR	50.0333	-5.0833	1.14
Devonport(GBR)	GBR	50.3667	-4.1667	1.09
Dingwall(GBR)	GBR	57.6000	-4.4167	0.65
Dover	GBR	51.1167	1.3333	1.26
Drax	GBR	53.7333	-0.9833	0.97
Dumbarton	GBR	55.9333	-4.5667	0.68
Dumfries	GBR	55.0667	-3.6167	0.92
Dunball	GBR	51.1667	-2.9833	1.19
Dunglass	GBR	55.9333	-4.5167	0.69
Dunoon	GBR	55.9333	-4.9167	0.90
Exeter	GBR	50.7167	-3.5167	1.23
Exmouth(GBR)	GBR	50.6167	-3.4167	1.06
Fairlie	GBR	55.7667	-4.8667	1.12
Falmouth	GBR	50.1667	-5.0500	1.14
Faslane Dock	GBR	56.0667	-4.8167	0.44
Faversham	GBR	51.3333	0.9000	1.09
Fawley	GBR	50.8167	-1.3333	1.03
Felixstowe	GBR	51.9500	1.3167	1.26
Finnart	GBR	56.1167	-4.8333	0.45
Fishbourne	GBR	50.7333	-1.2000	0.98
Fleetwood	GBR	53.9333	-3.0000	1.16
Flixborough	GBR	53.6167	-0.6833	0.97
Folkestone	GBR	51.0833	1.2000	1.07
Fort William	GBR	56.8167	-5.1167	0.66
Fowey	GBR	50.3333	-4.6333	1.15

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Freshwater Bay(GBR)	GBR	50.6667	-1.5167	0.95
Frodsham	GBR	53.3000	-2.7333	0.98
Furnace	GBR	56.1500	-5.1833	0.91
Gainsborough	GBR	53.4000	-0.7667	1.00
Garelochhead	GBR	56.0833	-4.8333	0.44
Glasgow	GBR	55.8667	-4.2833	0.75
Glencripesdale	GBR	56.6667	-5.8167	1.11
Glenmallan	GBR	56.1167	-4.8167	0.45
Gloucester(GBR)	GBR	51.8667	-2.2167	1.14
Goole	GBR	53.7000	-0.8667	0.93
Gourock	GBR	55.9500	-4.8000	0.67
Grangemouth	GBR	56.0333	-3.6833	0.89
Great Oakley	GBR	51.9000	1.2500	1.26
Greenock	GBR	55.9500	-4.7333	0.69
Grove Wharf	GBR	53.6000	-0.6833	0.97
Guinness	GBR	53.5833	-0.7167	0.97
Guinness Wharf	GBR	53.5833	-0.6833	0.97
Halling	GBR	51.3667	0.0075	1.17
Hamble	GBR	50.8167	-1.3000	0.98
Harwich	GBR	51.9500	1.2833	1.26
Hastings(GBR)	GBR	50.8500	0.5833	1.04
Hayle	GBR	50.1833	-5.4333	1.14
Helensburgh	GBR	56.0167	-4.7333	0.59
Herne Bay	GBR	51.3667	1.1167	0.99
Hessle	GBR	53.7167	-0.4333	1.15
Hound Point	GBR	56.0000	-3.3667	1.14
Howdendyke	GBR	53.7500	-0.8667	0.93
Hunstanton	GBR	52.9333	0.5000	1.20
Hunterston	GBR	55.7500	-4.8833	1.16
Ilfracombe	GBR	51.2000	-4.1167	1.19
Inveraray	GBR	56.2167	-5.0833	0.65
Invergordon	GBR	57.6833	-4.1667	0.87
Inverkeithing	GBR	56.0333	-3.4000	1.14
Inverkip	GBR	55.9167	-4.8667	0.90
Inverness	GBR	57.5000	-4.2333	0.69
Irlam	GBR	53.4333	-2.4167	0.98
Irwell	GBR	53.4667	-2.3500	0.99
Keadby	GBR	53.6000	-0.6667	0.97
Kilcreggan	GBR	55.9833	-4.8167	0.67
King's Lynn	GBR	52.7500	0.4000	1.00
Kinlochleven	GBR	56.7167	-4.9833	0.25
Kirkcudbright	GBR	54.8333	-4.0500	0.96
Kishorn	GBR	57.3833	-5.6000	1.16
Knottingley	GBR	53.7167	-1.2333	0.96
Largs	GBR	55.8000	-4.8667	1.05
Latchford	GBR	53.3833	-2.5667	0.95
Leigh	GBR	51.5500	0.6500	0.99
Littlehampton	GBR	50.8000	-0.5333	1.14
Llanelli	GBR	51.6667	-4.1667	1.17
Loch Striven	GBR	55.9500	-5.0833	0.77
Lochinver	GBR	58.1500	-5.2500	1.23

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
London	GBR	51.5000	-0.0667	1.22
Londonderry	GBR	54.9833	-7.3167	0.74
Longannet	GBR	56.0500	-3.6833	0.89
Lydney	GBR	51.7167	-2.5333	1.28
Lymington	GBR	50.7667	-1.5500	1.05
Manchester(GBR)	GBR	53.4667	-2.2833	1.02
Mevagissey	GBR	50.2667	-4.7833	1.15
Middlesbrough	GBR	54.5833	-1.2167	0.75
Mullion Cove	GBR	50.0167	-5.2667	1.19
Neap House	GBR	53.6167	-0.6667	0.97
New Holland	GBR	53.7000	-0.3500	1.20
Newburgh(GBR)	GBR	56.3500	-3.2500	0.80
Newhaven	GBR	50.7833	0.0667	1.06
Newport	GBR	51.5667	-2.9833	1.17
Newport(IOW)	GBR	50.7000	-1.2833	0.98
Newry	GBR	54.1833	-6.3333	0.96
Northwich	GBR	53.2667	-2.5333	0.96
Norwich	GBR	52.6333	1.2833	1.20
Old Kilpatrick	GBR	55.9167	-4.4500	0.71
Paisley	GBR	55.8500	-4.4333	0.72
Par	GBR	50.3500	-4.7000	1.18
Partington	GBR	53.4333	-2.4333	0.98
Perth	GBR	56.4000	-3.4333	0.67
Plymouth	GBR	50.3667	-4.1833	1.09
Port Glasgow	GBR	55.9333	-4.6833	0.60
Port Talbot	GBR	51.5833	-3.7167	1.19
Portbury	GBR	51.5000	-2.7333	1.10
Porthleven	GBR	50.0833	-5.3167	1.19
Porthoustock Quarry	GBR	50.0500	-5.0667	1.14
Portishead	GBR	51.4833	-2.7667	1.10
Portland(GBR)	GBR	50.5667	-2.4333	1.09
Preston(GBR)	GBR	53.7500	-2.7000	0.99
Ramsgate	GBR	51.3333	1.4167	1.25
Renfrew	GBR	55.8667	-4.4000	0.72
Richborough	GBR	51.3000	1.3500	1.25
Ridham Dock	GBR	51.3833	0.7667	1.25
Rochester	GBR	51.4000	0.5000	1.13
Rosneath	GBR	56.0167	-4.8000	0.47
Rosyth	GBR	56.0167	-3.4500	1.06
Rothesay	GBR	55.8333	-5.0500	1.20
Runcorn	GBR	53.3500	-2.7333	1.02
Ryde	GBR	50.7333	-1.1500	0.94
Rye	GBR	50.9333	0.7667	1.29
Selby(GBR)	GBR	53.7833	-1.0667	0.97
Shandon	GBR	56.0500	-4.8167	0.44
Sharpness	GBR	51.7167	-2.4833	1.26
Shoreham	GBR	50.8333	-0.2500	1.14
Shotton Wharf	GBR	53.2000	-3.0333	1.08
Sittingbourne	GBR	51.3500	0.7333	1.24
Sizewell	GBR	52.2167	1.6000	1.29
Snape Bridge	GBR	52.1500	1.5000	1.29



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Snodland	GBR	51.3333	0.4500	1.06
South Strome	GBR	57.3500	-5.5667	0.92
Southend	GBR	51.5333	0.7167	0.98
St. Davids	GBR	56.0333	-3.3667	1.14
St. Ives	GBR	50.2167	-5.4833	1.14
Sutton Bridge	GBR	52.7667	0.2000	1.11
Swansea	GBR	51.6167	-3.9333	1.09
Tarbert	GBR	55.8667	-5.4333	0.88
Teesport	GBR	54.5833	-1.1667	0.78
Teignmouth	GBR	50.5500	-3.5000	1.10
Thorne	GBR	53.6167	-0.9667	1.02
Tilbury	GBR	51.4500	0.3333	1.19
Topsham	GBR	50.6833	-3.6333	1.16
Torquay	GBR	50.4500	-3.5333	1.08
Truro	GBR	50.1667	-5.0333	1.14
Ullapool	GBR	57.9000	-5.1667	1.28
Walton Bay	GBR	51.4667	-2.8167	1.10
Walton on the Naze	GBR	51.8500	1.2667	1.26
Warrenpoint	GBR	54.1000	-6.2500	1.29
Warrington	GBR	53.4000	-2.6000	0.95
Watchet	GBR	51.1833	-3.3333	1.14
Wells	GBR	52.9667	0.8500	1.19
Wemyss Bay	GBR	55.8833	-4.8833	0.96
Weston Church Wall	GBR	53.3167	-2.7500	1.16
Weston Point	GBR	53.3333	-2.7667	1.16
Weymouth	GBR	50.6167	-2.4500	1.09
Whitstable	GBR	51.3667	1.0333	0.99
Winnington	GBR	53.2833	-2.5167	0.96
Wisbech	GBR	52.6500	0.1500	1.06
Yarmouth(GBR)	GBR	50.7000	-1.5000	1.05
Gibraltar	GIB	36.1500	-5.3333	1.14
Adhamas	GRC	36.7167	24.4500	1.10
Aegina	GRC	37.7333	23.4167	1.03
Aegion	GRC	38.2500	22.1000	0.49
Agioi Theodoroi	GRC	37.9000	23.0500	0.61
Alexandroupolis	GRC	40.8500	25.9500	0.00
Alonisos	GRC	39.1500	23.8333	0.94
Ambelaki	GRC	37.9500	23.5333	1.03
Amorgos	GRC	36.8167	25.9000	1.16
Andros	GRC	37.8167	24.9000	1.06
Araxos	GRC	38.1667	21.4000	1.12
Argostoli	GRC	38.2000	20.4833	0.75
Aspra Spitia	GRC	38.3667	22.6333	0.12
Aspropyrgos	GRC	38.0167	23.5833	0.66
Astakos	GRC	38.5333	21.0833	0.54
Astipalia	GRC	36.5333	26.3667	1.19
Ayia Galini	GRC	35.1000	24.6833	0.93
Ayia Marina(Leros Is.)	GRC	37.1500	26.8500	1.23
Ayios Evstratios	GRC	39.5167	24.9667	0.89
Ayios Nikolaos(Crete)	GRC	35.1833	25.7167	0.94
Ayios Nikolaos(Kea)	GRC	37.6667	24.3167	1.05

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Cape Tainaron	GRC	36.3833	22.4833	1.11
Chios	GRC	38.3833	26.1500	0.50
Corfu	GRC	39.6167	19.9500	0.62
Corinth	GRC	37.9500	22.9333	0.63
Delos	GRC	37.4000	25.2833	1.12
Drapetzone	GRC	37.9333	23.6167	1.03
Drepanon	GRC	38.7833	20.7333	0.66
Eleusis	GRC	38.0333	23.5000	0.54
Elevtherai	GRC	40.8333	24.3167	0.10
Eratini	GRC	38.3500	22.2333	0.14
Ermioni	GRC	37.3833	23.2333	1.03
Galaxidi	GRC	38.3667	22.3833	0.39
Gavdo	GRC	34.8333	24.0667	1.18
Gythion	GRC	36.7500	22.5667	0.90
Halki	GRC	36.2167	27.5833	1.22
Hydra	GRC	37.3500	23.4667	1.03
Igoumenitsa	GRC	39.5333	20.2167	0.42
Iraklion	GRC	35.2667	25.1667	1.19
Isthmia	GRC	37.9167	23.0000	0.66
Itea	GRC	38.4333	22.4167	0.39
Kalamaki	GRC	37.9167	23.0167	0.61
Kalamata	GRC	37.0000	22.1167	0.65
Kali Limenes	GRC	34.9333	24.8333	1.22
Kalymnos	GRC	36.9500	26.9833	1.24
Kalyvia	GRC	40.2667	23.4000	0.26
Karistos	GRC	38.0167	24.4167	1.00
Karlovassi	GRC	37.8000	26.6833	1.23
Karpathos	GRC	35.5000	27.2000	1.21
Katakolon	GRC	37.6500	21.3333	0.82
Kavala	GRC	40.9167	24.4167	0.09
Kea	GRC	37.6333	24.3333	1.05
Kheli	GRC	37.3167	23.1500	0.68
Kiato	GRC	38.0167	22.7333	0.83
Kimi	GRC	38.6333	24.1000	0.98
Kimolos	GRC	36.7833	24.5667	1.10
Kissamos	GRC	35.4833	23.6333	1.14
Kithira	GRC	36.1333	23.0000	1.09
Kithnos	GRC	37.4000	24.4667	1.06
Kos	GRC	36.8833	27.3167	1.26
Kyllini	GRC	37.9500	21.1500	1.16
Kymassi	GRC	38.8167	23.5167	1.01
Kyparissia	GRC	37.2500	21.6833	1.16
Lagos(GRC)	GRC	41.0000	25.1167	0.19
Larimna	GRC	38.5667	23.3000	1.00
Laurium	GRC	37.7000	24.0667	1.03
Limni	GRC	38.7667	23.3167	0.42
Linoperamata	GRC	35.3500	25.0500	1.19
Mandoudhi	GRC	38.8167	23.5333	1.01
Megara	GRC	37.9667	23.4000	1.03
Mesolongion	GRC	38.3167	21.3667	0.64
Metokhi	GRC	37.7000	23.3833	1.02

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Monemvasia	GRC	36.6833	23.0500	1.03
Mykonos	GRC	37.4500	25.3333	1.12
Myrina	GRC	39.8667	25.0500	0.86
Mytilene	GRC	39.1000	26.5833	1.06
Nauplia	GRC	37.5667	22.8000	0.78
Naxos	GRC	37.1000	25.3833	1.13
Nea Karvali	GRC	40.9500	24.4833	0.09
Nea Moudhania	GRC	40.2333	23.2833	0.31
Nea Peramos	GRC	40.8167	24.3000	0.10
Neapolis	GRC	36.5000	23.0500	1.03
Nisiros	GRC	36.6167	27.1333	1.23
Pachi	GRC	37.9667	23.3833	1.03
Pachia Ammos	GRC	35.1167	25.8333	0.95
Paros	GRC	37.0833	25.3167	1.13
Patmos	GRC	37.3000	26.5833	1.22
Patras	GRC	38.2500	21.7333	0.49
Perama	GRC	37.9500	23.5833	1.03
Piraeus	GRC	37.9333	23.6333	1.03
Platiyali	GRC	38.4667	21.1000	1.11
Poros	GRC	37.5000	23.4667	1.02
Port Laki	GRC	37.1167	26.8500	1.23
Porto Rafti	GRC	37.8833	24.0000	1.01
Preveza	GRC	38.9500	20.7500	0.77
Prinos	GRC	40.9333	24.5167	0.22
Proti Is.	GRC	37.0500	21.5500	0.74
Pylos	GRC	36.9167	21.7000	1.15
Pythagorion	GRC	37.6833	26.9333	0.75
Rafina	GRC	38.0167	24.0000	0.97
Rethimnon	GRC	35.3667	24.4667	0.84
Revithousa	GRC	37.9592	23.4036	1.03
Rion	GRC	38.3000	21.8000	0.49
Salamis	GRC	37.9667	23.5000	1.03
Samos	GRC	37.7500	26.9667	1.24
Samothraki	GRC	40.4500	25.5333	0.73
Serifos	GRC	37.1167	24.5333	1.08
Sifnos Is.	GRC	36.9667	24.7167	1.10
Simi	GRC	36.6167	27.8333	1.29
Sitia	GRC	35.2167	26.1167	1.02
Skaramanga	GRC	38.0000	23.5833	0.90
Skiathos	GRC	39.1667	23.4833	0.93
Skopelos	GRC	39.1167	23.7500	0.94
Sousaki	GRC	37.9167	23.1167	0.61
Spetsai	GRC	37.2667	23.1667	0.68
St. George Hbr.(GRC)	GRC	37.9500	23.6000	1.03
Stavros	GRC	38.4500	20.6500	1.09
Stratoni	GRC	40.5167	23.8500	0.82
Suda Bay	GRC	35.4833	24.0500	1.15
Syros	GRC	37.4333	24.9500	1.10
Thasos	GRC	40.7667	24.7000	0.08
Thessaloniki	GRC	40.6333	22.9333	0.28
Thira	GRC	36.4167	25.4500	1.15

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Thisvi	GRC	38.2500	22.9500	0.16
Tinos	GRC	37.5333	25.1667	1.09
Vathi	GRC	38.3667	20.7333	1.10
Vatika Bay	GRC	36.5167	23.0000	1.03
Voudia Bay	GRC	36.7500	24.5333	1.10
Yali	GRC	36.6500	27.1167	1.23
Yerakini	GRC	40.2667	23.4333	0.26
Zante	GRC	37.7833	20.9000	1.13
Kangerlussuaq	GRL	66.9667	-50.9500	0.99
Narsaq	GRL	60.9000	-45.9833	1.14
Narsarsuaq	GRL	61.1500	-45.4333	1.03
Beli	HRV	45.1000	14.3667	0.48
Bol	HRV	43.2500	16.6500	0.30
Brbinj	HRV	44.0667	14.9833	0.21
Brijuni	HRV	44.9000	13.7833	0.19
Brna	HRV	42.9000	16.8500	0.86
Budava	HRV	44.9000	13.9833	0.90
Cavtat	HRV	42.5667	18.2167	0.18
Dubrovnik	HRV	42.6333	18.1167	0.23
Dugi Rat	HRV	43.4500	16.6500	0.33
Gradac	HRV	44.9667	14.1000	0.66
Gruz	HRV	42.6667	18.0833	0.23
Hvar	HRV	43.2667	16.4500	0.80
Jablanac	HRV	44.7000	14.8667	1.17
Kastel Sucurac	HRV	43.5500	16.4167	0.17
Komiza	HRV	43.0333	16.0833	0.81
Korcula	HRV	42.8000	17.1333	0.40
Kraljevica	HRV	45.2833	14.5667	0.38
Krk	HRV	45.0167	14.5833	0.20
Lastovo	HRV	42.7667	16.9000	0.86
Luka Mirna	HRV	45.3000	13.5667	0.12
Makarska	HRV	43.2833	17.0167	0.70
Mali Losinj	HRV	44.5333	14.4667	0.70
Malinska	HRV	45.1167	14.5167	0.13
Maslenica	HRV	44.2167	15.5333	1.12
Merag	HRV	44.9833	14.4333	0.48
Milna	HRV	43.3167	16.4500	0.80
Novigrad	HRV	45.3167	13.5667	0.12
Omis	HRV	43.4333	16.7000	0.17
Omislj	HRV	45.2167	14.5500	0.38
Opatija	HRV	45.3333	14.3167	0.76
Pag	HRV	44.4500	15.0500	0.18
Ploce	HRV	43.0333	17.4167	0.23
Plomin	HRV	45.1333	14.2000	1.20
Porec	HRV	45.2333	13.6000	0.12
Primosten	HRV	43.6833	15.9500	0.27
Prtlog	HRV	45.0500	14.1500	0.26
Pula	HRV	44.8833	13.8333	0.61
Rab	HRV	44.7500	14.7667	0.22
Rabac	HRV	45.0667	14.1667	0.26
Rasa	HRV	45.0333	14.0667	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ravnice	HRV	43.4167	16.7000	0.17
Rijeka	HRV	45.3167	14.4333	0.60
Rovinj	HRV	45.0833	13.6333	0.14
Sali	HRV	43.9167	15.1667	0.79
Senj	HRV	45.0000	14.8833	0.86
Sibenik	HRV	43.7333	15.9000	0.27
Solin	HRV	43.5333	16.4667	0.17
Split	HRV	43.5000	16.4500	0.20
Stari Grad	HRV	43.2000	16.5500	0.81
Supetar	HRV	43.3833	16.5500	0.33
Sv. Mikula	HRV	44.9833	14.0833	1.11
Sveti Juraj	HRV	44.9333	14.9167	0.86
Tar	HRV	45.3167	13.6000	0.86
Trogir	HRV	43.5167	16.2500	0.20
Ubli	HRV	42.7333	16.8167	0.86
Ugljan	HRV	44.1333	15.1167	0.20
Umag	HRV	45.4333	13.5167	0.08
Valbiska	HRV	45.0500	14.4667	0.48
Vela Luka	HRV	42.9833	16.6167	0.81
Veli Rat	HRV	44.1500	14.8167	0.72
Velika Stinica	HRV	44.7167	14.8667	1.17
Vranjic	HRV	43.5000	16.4500	0.20
Vrsar	HRV	45.1500	13.6000	0.14
Zadar	HRV	44.1167	15.2333	0.19
Aughinish Is.	IRL	52.6333	-9.0500	0.99
Ballina(IRL)	IRL	54.1167	-9.1667	1.00
Cahiracon	IRL	52.6500	-9.1167	1.00
Dernish Is.	IRL	52.6833	-8.9167	1.04
Donegal	IRL	54.6500	-8.1000	0.67
Drogheda	IRL	53.7167	-6.3500	1.25
Foynes	IRL	52.6167	-9.1000	1.00
Foynes Is.	IRL	52.6167	-9.1167	1.00
Kenmare	IRL	51.8667	-9.6000	1.12
Killadysert	IRL	52.6667	-9.1000	1.00
Letterkenny	IRL	54.9500	-7.7500	0.77
Limerick	IRL	52.6667	-8.6333	1.04
Moneypoint	IRL	52.6000	-9.4000	1.18
New Ross	IRL	52.4000	-6.9500	0.95
Newport(Co Mayo)	IRL	53.8833	-9.5500	1.27
Port Milford	IRL	55.1000	-7.7000	1.17
Skibbereen	IRL	51.5500	-9.2667	1.22
Sligo	IRL	54.2667	-8.4667	1.06
Tarbert Is.	IRL	52.5833	-9.3667	1.18
Tralee	IRL	52.2667	-9.7000	1.08
Westport(IRL)	IRL	53.8000	-9.5333	1.17
Youghal	IRL	51.9333	-7.8333	1.25
Akureyri	ISL	65.6833	-18.0500	1.05
Grafaros	ISL	65.5500	-19.4000	0.95
Helguvik	ISL	64.3833	-21.4667	1.14
Hrafneyri	ISL	64.3833	-21.5333	1.14
Krossanes	ISL	65.7000	-18.1167	1.14

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Midsandur	ISL	64.4000	-21.4667	1.14
Svalbardhseyri	ISL	65.7500	-18.1000	1.14
Ashkelon	ISR	31.6667	34.5500	1.26
Hadera	ISR	32.4500	34.9167	1.27
Haifa	ISR	32.8167	35.0000	1.20
Tel Aviv	ISR	32.1000	34.7833	1.24
Acciaroli	ITA	40.1667	15.0167	0.63
Agropoli	ITA	40.3333	14.9667	0.97
Alghero	ITA	40.5667	8.3167	0.73
Amalfi	ITA	40.6333	14.6000	0.35
Ameilia	ITA	44.0667	9.9667	0.35
Ancona	ITA	43.6172	13.5117	0.60
Anzio	ITA	41.4500	12.6333	0.95
Arbatax	ITA	39.9333	9.7000	0.63
Augusta	ITA	37.2000	15.2167	1.01
Avola	ITA	36.9000	15.1500	1.04
Bagnara Calabria	ITA	38.2667	15.8000	0.50
Bagnoli	ITA	40.8000	14.1667	0.63
Baia	ITA	40.8167	14.0833	0.63
Bari	ITA	41.1333	16.8833	0.55
Barletta	ITA	41.3167	16.2667	0.80
Bordighera	ITA	43.7833	7.6667	0.41
Brindisi	ITA	40.6500	17.9833	0.89
Cagliari	ITA	39.2000	9.0833	0.78
Capo San Vito	ITA	38.2000	12.7167	1.01
Capraia Is.	ITA	43.0500	9.9000	0.87
Capri	ITA	40.5500	14.2500	0.97
Carloforte	ITA	39.1500	8.3167	0.93
Casamicciola Terme	ITA	40.7500	13.9000	0.97
Castellammare del Golfo	ITA	38.0333	12.8833	1.01
Castellammare di Stabia	ITA	40.7000	14.4833	0.52
Catania	ITA	37.5167	15.1000	0.61
Cattolica	ITA	43.9500	12.7333	0.09
Cesenatico	ITA	44.2000	12.4000	0.10
Chioggia	ITA	45.2167	12.2833	0.17
Ciro Marina	ITA	39.3667	17.1333	0.91
Civitavecchia	ITA	42.1000	11.8000	0.60
Corigliano	ITA	39.6667	16.5167	0.56
Crotone	ITA	39.0833	17.1333	0.93
Falconara	ITA	43.6667	13.4000	0.14
Fano	ITA	43.8500	13.0167	0.53
Favignana	ITA	37.9333	12.3333	1.03
Fiumicino	ITA	41.7667	12.2333	0.55
Follonica	ITA	42.9167	10.7500	0.48
Formia	ITA	41.2500	13.6000	0.26
Gaeta	ITA	41.2167	13.5833	0.94
Gallipoli	ITA	40.0500	18.0000	0.74
Gela	ITA	37.0667	14.2500	0.92
Genoa	ITA	44.4167	8.9167	0.26
Giardini	ITA	37.8333	15.2833	1.06
Giglio Is.	ITA	42.3667	10.9167	0.91

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Gioia Tauro	ITA	38.4333	15.9000	0.99
Giulianova	ITA	42.7500	13.9667	0.23
Golfo Aranci	ITA	41.0000	9.6167	0.88
Imperia	ITA	43.8833	8.0333	0.84
La Maddalena	ITA	41.2167	9.4000	0.79
La Spezia	ITA	44.1167	9.8333	0.30
Lampedusa Is.	ITA	35.5000	12.6000	1.12
Lavagna	ITA	44.3000	9.3500	0.27
Leghorn	ITA	43.5500	10.3167	0.42
Licata	ITA	37.1000	13.9333	0.97
Linosa Is.	ITA	35.8667	12.8500	1.11
Lipari	ITA	38.4667	14.9500	1.02
Manfredonia	ITA	41.6167	15.9167	0.55
Marano	ITA	45.4333	12.3500	0.15
Marina di Carrara	ITA	44.0333	10.0500	0.28
Marina di Catanzaro	ITA	38.8167	16.6167	0.82
Marsala	ITA	37.8000	12.4333	1.03
Marzamemi	ITA	36.7500	15.1167	1.04
Mazara del Vallo	ITA	37.6500	12.5833	1.04
Messina	ITA	38.2000	15.5667	1.01
Milazzo	ITA	38.2167	15.2500	1.09
Molfetta	ITA	41.2167	16.6333	0.57
Monfalcone	ITA	45.7833	13.5500	0.04
Monopoli	ITA	40.9500	17.3000	0.44
Muggia	ITA	45.6000	13.7500	0.06
Naples	ITA	40.8500	14.2667	0.52
Olbia	ITA	40.9167	9.5667	0.86
Oristano	ITA	39.8667	8.5500	0.83
Ortona	ITA	42.3500	14.4167	0.69
Ostia	ITA	41.7167	12.3000	0.55
Otranto	ITA	40.1500	18.5000	0.90
Palau(ITA)	ITA	41.1833	9.3833	0.79
Palermo	ITA	38.1167	13.3667	0.87
Panarea	ITA	38.6333	15.0667	1.03
Pantelleria	ITA	36.7833	12.0000	1.03
Pellestrina	ITA	45.2667	12.3000	0.15
Pesaro	ITA	43.9167	12.9000	0.09
Pescara	ITA	42.4667	14.2333	0.69
Pietra Ligure	ITA	44.1500	8.2833	0.85
Piombino	ITA	42.9333	10.5500	0.93
Ponza	ITA	40.9000	12.9667	0.96
Porticello	ITA	38.0833	13.5333	1.03
Portici	ITA	40.8167	14.3333	0.55
Portiglione	ITA	42.8833	10.7667	0.48
Porto Azzurro	ITA	42.7667	10.4000	0.91
Porto Cervo	ITA	41.1333	9.5500	0.88
Porto d'Ischia	ITA	40.7333	13.9500	0.97
Porto Empedocle	ITA	37.2833	13.5333	0.93
Porto Garibaldi	ITA	44.6833	12.2333	0.22
Porto Levante	ITA	45.0667	12.3667	0.17
Porto Santo Stefano	ITA	42.4500	11.1167	0.88

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Porto Torres	ITA	40.8333	8.4000	0.88
Porto Vesme	ITA	39.2000	8.4000	0.93
Porto Xifonio	ITA	37.2333	15.2333	1.04
Portoferraio	ITA	42.8167	10.3333	0.91
Portofino	ITA	44.3000	9.2333	0.37
Portoscuso	ITA	39.2167	8.3667	0.93
Portovenere	ITA	44.0500	9.8333	0.30
Positano	ITA	40.6167	14.4667	0.97
Pozzallo	ITA	36.7167	14.8500	1.06
Pozzuoli	ITA	40.8167	14.1167	0.63
Procida	ITA	40.7833	14.0333	0.63
Ravenna	ITA	44.4167	12.4500	0.25
Reggio di Calabria	ITA	38.1167	15.6500	1.01
Rimini	ITA	44.0667	12.5833	0.29
Rinella	ITA	38.5500	14.8333	1.03
Rio Marina	ITA	42.8167	10.4333	0.91
Riposto	ITA	37.7333	15.2167	0.95
Salerno	ITA	40.6833	14.7667	0.38
Salina	ITA	38.5667	14.8667	1.03
San Benedetto del Tronto	ITA	42.9500	13.8833	0.25
San Remo	ITA	43.8167	7.7833	0.50
Sant' Antioco	ITA	39.0333	8.4333	0.93
Santa Giusta	ITA	39.8833	8.6167	1.06
Santa Liberata	ITA	42.4167	11.1500	0.88
Santa Margherita(ITA)	ITA	44.3333	9.2167	0.37
Santa Panagia	ITA	37.1167	15.2667	1.04
Santa Teresa Gallura	ITA	41.2333	9.1667	0.70
Sarroch	ITA	39.0833	9.0333	0.71
Savona	ITA	44.3000	8.4833	0.28
Sciacca	ITA	37.5000	13.0833	1.04
Senigallia	ITA	43.7000	13.0500	0.11
Sestri Levante	ITA	44.2667	9.3833	0.27
Siracusa	ITA	37.0500	15.3000	1.04
Sorrento	ITA	40.6333	14.3833	0.97
Stromboli	ITA	38.8000	15.2500	1.03
Talamone	ITA	42.5500	11.1333	0.46
Taormina	ITA	37.8500	15.3000	1.06
Taranto	ITA	40.4500	17.2000	0.88
Termini Imerese	ITA	37.9833	13.7000	1.03
Termoli	ITA	42.0000	15.0000	0.72
Terracina	ITA	41.2833	13.2500	0.50
Torre Annunziata	ITA	40.7500	14.4500	0.52
Torre del Greco	ITA	40.7833	14.3667	0.52
Torregrotta	ITA	38.2000	15.3667	0.88
Trani	ITA	41.2833	16.4167	0.80
Trapani	ITA	38.0333	12.5167	1.01
Tremiti Is.	ITA	42.1167	15.5000	0.76
Trieste	ITA	45.6500	13.8000	0.06
Ustica	ITA	38.7000	13.1833	1.04
Vada	ITA	43.3500	10.4500	0.39
Vallone	ITA	42.7000	10.4000	0.90



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Vasto	ITA	42.1000	14.7167	0.42
Venice	ITA	45.4333	12.3333	0.15
Ventimiglia	ITA	43.7833	7.6000	0.41
Viareggio	ITA	43.8667	10.2500	0.26
Vibo Valentia	ITA	38.7167	16.1333	0.77
Vieste	ITA	41.8667	16.1833	0.42
Villa San Giovanni	ITA	38.2167	15.6333	1.01
Vulcano	ITA	38.4167	14.9667	1.02
Aboshi	JPN	34.7667	134.6000	0.69
Aburatsu	JPN	31.5667	131.4000	0.81
Ainoura	JPN	33.1833	129.6500	0.59
Aioi	JPN	34.7667	134.4667	0.65
Ajisu	JPN	34.0000	131.3667	0.59
Akashi	JPN	34.6500	135.0000	0.63
Akita	JPN	39.7500	140.0667	0.53
Akitsu	JPN	34.3167	132.8167	0.55
Ako	JPN	34.7333	134.3833	0.65
Amagasaki	JPN	34.6833	135.3833	0.84
Anan	JPN	33.9000	134.6667	0.64
Aomori	JPN	40.8167	140.7500	0.72
Arari	JPN	34.8167	138.7500	0.49
Arida	JPN	34.0833	135.1167	0.76
Atsumi	JPN	34.6667	137.0667	0.97
Awaji	JPN	34.5667	135.0000	0.63
Befu	JPN	34.7167	134.8500	0.71
Beppu	JPN	33.3000	131.5167	0.67
Chita	JPN	34.9833	136.8500	0.71
Choshi	JPN	35.7333	140.6833	0.42
Ebisu	JPN	38.0833	139.4333	0.49
Esaki	JPN	34.6500	131.6500	0.52
Etajima	JPN	34.2333	132.4667	0.62
Fukui	JPN	36.2167	136.1333	0.55
Fukuoka	JPN	33.6500	130.3500	0.95
Fukura	JPN	39.0667	139.8833	0.58
Fukushima	JPN	41.4667	140.2667	0.29
Fukuyama	JPN	34.4333	133.4500	0.65
Funakawa	JPN	39.8833	139.8667	0.51
Fushiki	JPN	36.7833	137.0500	0.50
Fushiki-Toyama	JPN	36.7667	137.0833	0.50
Futtsu	JPN	35.3000	139.8167	1.01
Gamagori	JPN	34.8000	137.2167	0.66
Gotsu	JPN	35.0000	132.2167	0.87
Habu	JPN	34.2833	133.1833	0.60
Hachinohe	JPN	40.5333	141.5333	0.59
Hagi	JPN	34.4000	131.4000	0.46
Hakata	JPN	33.6167	130.3833	1.02
Hakodate	JPN	41.7833	140.7167	0.80
Hamada	JPN	34.8833	132.0333	0.45
Hamaoka	JPN	34.6333	138.1333	0.65
Handa	JPN	34.8833	136.9333	0.69
Hannan	JPN	34.4667	135.3500	0.67

Global Port	Country	Latitude	Longitude	Environmental Distance
Haramichi	JPN	37.6333	140.9667	0.36
Hashihama	JPN	34.1000	132.9667	0.66
Hibi	JPN	34.4500	133.9333	0.67
Higashi-Harima	JPN	34.7167	134.8333	0.71
Higashino	JPN	34.2500	132.9000	0.65
Hikari	JPN	33.9500	131.9333	0.32
Hiketa	JPN	34.2167	134.4000	0.60
Himeji	JPN	34.7667	134.6333	0.69
Himekawa	JPN	37.0333	137.8500	0.52
Hinase	JPN	34.7167	134.2500	0.51
Hirao	JPN	33.9000	132.0500	0.58
Hiro	JPN	34.2167	132.6167	0.53
Hirohata	JPN	34.7667	134.6167	0.69
Hirono	JPN	37.2333	141.0167	0.50
Hiroshima	JPN	34.3333	132.4500	0.62
Hitachi	JPN	36.4833	140.6333	0.34
Hitakatsu	JPN	34.6833	129.4500	0.89
Hojo	JPN	33.9667	132.7667	0.64
Honai	JPN	33.4667	132.3833	0.49
Honura	JPN	34.4500	134.0000	0.61
Hososhima	JPN	32.4500	131.6667	0.57
Ishima	JPN	34.6667	134.5000	0.56
Ikata	JPN	33.4833	132.3500	0.97
Imabari	JPN	34.0667	133.0167	0.66
Ishikari	JPN	43.2500	141.3500	0.77
Ishikariwan Shinko	JPN	43.2167	141.3000	1.04
Ishinomaki	JPN	38.4167	141.3000	0.39
Itozaki	JPN	34.3833	133.1000	0.52
Iwagi	JPN	34.2333	133.1333	0.62
Iwakuni	JPN	34.1667	132.2500	0.77
Iwanai	JPN	42.9833	140.5167	1.24
Izuhara	JPN	34.1833	129.3000	0.99
Izumisano	JPN	34.3833	135.3000	0.76
Kainan	JPN	34.1500	135.1833	0.76
Kakogawa	JPN	34.7000	134.8333	0.71
Kamaishi	JPN	39.2667	141.9000	0.52
Kamigoto	JPN	32.9833	129.0667	1.19
Kamo	JPN	34.8500	138.7833	0.39
Kanazawa	JPN	36.6167	136.6000	0.58
Kanda	JPN	33.8000	131.0000	0.68
Kannoura	JPN	33.5833	134.3000	0.43
Kanokawa	JPN	34.1667	132.4333	0.77
Karatsu	JPN	33.4667	129.9667	0.64
Kasado	JPN	33.9500	131.7833	0.32
Kasaoka	JPN	34.5000	133.5000	0.65
Kashima	JPN	35.9333	140.7000	0.40
Kashiwazaki	JPN	37.3667	138.5500	0.50
Katsuura	JPN	33.6167	135.9500	0.68
Kawanoe	JPN	34.0167	133.5333	0.73
Kawanoishi	JPN	33.4833	132.3833	0.97
Kawauchi	JPN	41.1667	141.0000	0.68

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kesenuma	JPN	38.8667	141.6000	0.49
Kikuma	JPN	34.0333	132.8333	0.66
Kinoe	JPN	34.2167	132.9000	0.66
Kinoura	JPN	34.2000	133.1333	0.66
Kinuura	JPN	34.8667	136.9500	0.69
Kisarazu	JPN	35.3667	139.8833	1.25
Kishiwada	JPN	34.4667	135.3667	0.67
Kobe	JPN	34.6667	135.2167	0.67
Kochi(JPN)	JPN	33.5167	133.5667	1.27
Kokura	JPN	33.9000	130.9000	1.13
Komatsushima	JPN	34.0000	134.6000	0.89
Komenotsu	JPN	32.1000	130.3333	0.70
Kuchinotsu	JPN	32.6000	130.2000	1.26
Kudamatsu	JPN	34.0000	131.8500	0.61
Kuji	JPN	40.1667	141.7833	0.70
Kunisaki	JPN	33.5833	131.7167	0.63
Kure	JPN	34.2333	132.5500	0.53
Kurihama	JPN	35.2167	139.7333	0.65
Kuroshima	JPN	37.2667	136.7333	0.39
Kushikino	JPN	31.7500	130.2667	0.76
Makurazaki	JPN	31.2667	130.3000	0.84
Marugame	JPN	34.3000	133.7833	0.70
Mashike	JPN	43.8667	141.5167	1.04
Matsunaga	JPN	34.4167	133.2500	0.60
Matsushima	JPN	32.9333	129.6000	1.20
Matsuura	JPN	33.3500	129.7333	0.63
Matsuyama	JPN	33.8500	132.7000	0.82
Mega	JPN	34.7667	134.7000	0.71
Mihara	JPN	34.3833	133.1000	0.52
Mikawa	JPN	34.7667	137.2667	0.66
Minamata	JPN	32.2167	130.3333	1.29
Misaki	JPN	33.3833	132.1333	1.11
Mishima-Kawanoe	JPN	34.0167	133.5667	0.73
Mitajiri	JPN	34.0167	131.6000	0.52
Mitsukoshima	JPN	34.1833	132.5167	0.53
Miura	JPN	35.1333	139.6167	1.08
Miyako	JPN	39.6333	141.9667	0.59
Miyazaki	JPN	31.8833	131.4500	0.86
Miyazu	JPN	35.5833	135.2167	1.08
Mizushima	JPN	34.5000	133.7500	0.72
Moji	JPN	33.9500	130.9667	1.13
Mori	JPN	42.1167	140.5833	0.98
Mukaishima	JPN	34.3833	133.2000	0.60
Muroran	JPN	42.3500	140.9500	1.03
Mutsu Ogawara	JPN	40.9500	141.4167	0.53
Mutsure	JPN	33.9667	130.8667	1.13
Nagahama	JPN	33.6167	132.4833	0.41
Nagasaki	JPN	32.7167	129.8333	1.19
Nagashima	JPN	34.1833	136.3500	1.13
Nagasu	JPN	33.5833	131.3667	0.45
Nagoya	JPN	35.0500	136.8500	0.76

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Nakajima	JPN	33.9000	132.7333	0.64
Nakaminato	JPN	36.3500	140.6333	0.75
Nakanoseki	JPN	34.0000	131.5667	0.46
Namikata	JPN	34.1167	132.9667	0.66
Nanao	JPN	37.1000	137.0333	0.50
Nandan	JPN	34.2333	134.7000	0.68
Nango	JPN	31.5167	131.3667	0.81
Naoetsu	JPN	37.1833	138.2500	0.53
Naoshima	JPN	34.4500	134.0000	0.61
Naruto	JPN	34.1833	134.6167	0.89
Niigata	JPN	37.9500	139.0667	0.53
Niigata-Higashi	JPN	38.0000	139.2333	0.49
Niihama	JPN	33.9833	133.2833	0.69
Nishinomiya	JPN	34.7167	135.3500	0.84
Nobeoka	JPN	32.5833	131.7167	0.64
Nonai	JPN	40.8333	140.8167	0.72
Noshiro	JPN	40.2167	140.0000	0.52
Numakuma	JPN	34.3667	133.3000	0.60
Numazu	JPN	35.1333	138.8333	0.61
Ofunato	JPN	38.9833	141.7500	0.51
Ogaki	JPN	34.1667	132.4500	0.77
Oginohama	JPN	38.3833	141.3667	0.43
Oigawa	JPN	34.7833	138.3000	1.09
Okuma	JPN	37.3833	140.9833	0.50
Omaezaki	JPN	34.6000	138.2333	1.15
Ominato	JPN	41.2333	141.1833	0.78
Omishima	JPN	34.2500	133.0000	0.65
Onagawa	JPN	38.4500	141.4667	0.43
Onahama	JPN	36.9333	140.9167	0.85
Onishi	JPN	34.0500	132.9167	0.66
Onoda	JPN	34.0000	131.1833	0.68
Onomichi	JPN	34.4000	133.1833	0.60
Oppama	JPN	35.5667	135.2500	0.66
Osaka	JPN	34.6500	135.4000	0.87
Osaki	JPN	34.2333	132.8667	0.65
Oseto	JPN	32.9333	129.6500	1.20
Oshima	JPN	33.4667	129.5333	0.58
Otake	JPN	34.2000	132.2000	0.50
Otaru	JPN	43.2000	141.0167	1.02
Otsuchi	JPN	39.3500	141.9000	0.58
Owase	JPN	34.0667	136.2167	0.44
Reihoku	JPN	32.5000	130.0333	1.26
Rumoi	JPN	43.9500	141.6333	1.04
Saga	JPN	34.0667	133.0833	0.66
Saganoseki	JPN	33.2500	131.8667	0.40
Saijo	JPN	33.9167	133.1667	0.60
Saiki	JPN	32.9667	131.9167	0.54
Saitozaki	JPN	33.6333	130.3500	0.95
Saizaki	JPN	34.3333	133.0333	0.62
Sakai	JPN	34.5667	135.4000	0.87
Sakaide	JPN	34.3333	133.8500	0.65

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Sakaiminato	JPN	35.5333	133.2500	0.71
Sakata	JPN	38.9333	139.8167	0.47
Sakito	JPN	33.0167	129.5500	0.56
Sasebo	JPN	33.1333	129.7167	1.28
Seki Saki	JPN	33.2667	131.9000	0.40
Sekinehama	JPN	41.3667	141.2167	0.91
Sendai	JPN	38.2667	141.0500	0.43
Sendai-Shiogama	JPN	38.2833	141.0333	0.43
Senzaki	JPN	34.4000	131.2000	0.52
Setoda	JPN	34.3000	133.1000	0.62
Shibushi	JPN	31.4667	131.1167	0.89
Shigei	JPN	34.3333	133.1333	0.62
Shikama	JPN	34.7833	134.6667	0.69
Shimizu	JPN	35.0167	138.5333	0.51
Shimoda	JPN	34.6667	138.9500	1.19
Shimonoseki	JPN	33.9333	130.9333	1.13
Shimotsu	JPN	34.1167	135.1333	0.76
Shiogama	JPN	38.3167	141.0333	0.43
Shirashima	JPN	34.0167	130.7333	0.64
Shiriya	JPN	41.4000	141.4667	0.91
Shizuura	JPN	41.4833	140.0167	0.76
Shodoshima	JPN	34.5000	134.2500	0.49
Soma	JPN	37.8333	140.9667	0.35
Sukumo	JPN	32.9167	132.7167	0.59
Sumoto	JPN	34.3333	134.8833	0.71
Susaki	JPN	33.3833	133.3000	0.53
Tachibana	JPN	33.8833	134.7167	0.67
Tadotsu	JPN	34.2833	133.7333	0.70
Tagonoura	JPN	35.1333	138.7000	0.61
Taisha	JPN	35.4333	132.6667	0.85
Takahama	JPN	35.5000	135.5333	0.66
Takamatsu	JPN	34.3500	134.0500	0.61
Takasago	JPN	34.7333	134.8000	0.71
Takehara	JPN	34.3167	132.9167	0.65
Takuma	JPN	34.2500	133.7000	0.53
Tamagawa	JPN	40.0833	141.8333	0.70
Tamano	JPN	34.4833	133.9333	0.67
Tanabe	JPN	33.7167	135.3500	0.62
Tanoura	JPN	33.9667	130.9833	0.68
Tateyama	JPN	35.0000	139.8667	0.53
Taura	JPN	35.3000	139.6333	0.64
Toba	JPN	34.4833	136.8500	0.94
Tokai	JPN	36.4500	140.5833	0.75
Tokushima	JPN	34.0500	134.6000	0.89
Tokuyama	JPN	34.0000	131.8000	0.46
Tomakomai	JPN	42.6333	141.6333	1.04
Tomioka	JPN	37.3333	141.0000	0.50
Toyama	JPN	36.7500	137.2333	0.51
Toyama Shinko	JPN	36.8000	137.0833	0.50
Toyo	JPN	33.9167	133.0667	0.60
Toyohashi	JPN	34.7167	137.3167	1.00

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tsu	JPN	34.6833	136.5500	0.92
Tsukama	JPN	35.0000	138.5167	0.47
Tsukumi	JPN	33.0833	131.8667	0.49
Tsuna	JPN	34.4167	134.9000	0.71
Tsuneishi	JPN	34.3667	133.2833	0.60
Tsuruga	JPN	35.6667	136.0833	0.43
Tsurumi	JPN	35.5000	139.6833	1.28
Tsutsu	JPN	34.1167	129.1833	0.98
Ube	JPN	33.9333	131.2000	0.68
Uchinomi	JPN	34.4667	134.3167	0.65
Uchiura	JPN	35.5333	135.5000	0.66
Udono	JPN	33.7333	136.0167	1.22
Ujina	JPN	34.3500	132.4667	0.58
Uno	JPN	34.4833	133.9500	0.67
Urado	JPN	33.5000	133.5833	0.66
Uraga	JPN	35.2333	139.7333	1.00
Usami	JPN	35.0000	139.1000	1.04
Ushimado	JPN	34.6167	134.1667	0.72
Usuki	JPN	33.1333	131.8167	0.49
Usunoura	JPN	33.2000	129.5833	0.59
Uwajima	JPN	33.2167	132.5500	0.41
Wakayama	JPN	34.2000	135.1333	0.76
Wakkanai	JPN	45.4167	141.7000	1.10
Wanishi	JPN	42.3333	141.0000	0.98
Yaizu	JPN	34.8667	138.3333	1.09
Yanai	JPN	33.9500	132.1333	0.58
Yawatahama	JPN	33.4500	132.4000	0.49
Yoichi	JPN	43.2167	140.7833	1.06
Yokkaichi	JPN	34.9500	136.6500	0.82
Yokohama	JPN	35.4500	139.6667	1.15
Yokosuka	JPN	35.2833	139.6833	0.65
Yoshida	JPN	33.2667	132.5333	0.41
Yoshiumi	JPN	34.1333	133.0333	0.66
Yura	JPN	33.9500	135.1000	0.71
Yutaka	JPN	34.1667	132.8333	0.66
Boryoung	KOR	35.3333	126.4667	0.27
Busan	KOR	35.1000	129.0667	0.49
Daepo	KOR	38.1667	128.6167	0.62
Daesan	KOR	37.0167	126.4167	0.74
Donghae	KOR	37.5136	129.1203	0.43
Gojeong	KOR	36.3000	126.4500	0.45
Gunsan	KOR	36.0000	126.7167	0.61
Gwangyang	KOR	34.9000	127.7000	0.53
Hadong	KOR	34.9500	127.8167	0.53
Incheon	KOR	37.4667	126.6000	0.83
Janghang	KOR	36.0167	126.6833	0.61
Jeju	KOR	33.5167	126.5500	0.96
Jinhae	KOR	35.1333	128.6500	0.49
Mipo	KOR	35.5167	129.4333	0.47
Mokpo	KOR	34.7833	126.3833	0.59
Mukho	KOR	37.5492	129.1086	0.43

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Okke	KOR	37.5000	129.0833	0.43
Okpo	KOR	34.8833	128.7167	0.87
Onsan	KOR	35.4500	129.3667	0.80
Pohang	KOR	36.0333	129.4333	0.46
Pyeongtaek	KOR	37.0000	126.7833	0.68
Samchok	KOR	37.4842	129.1239	0.43
Samchonpo	KOR	34.9167	128.0667	0.47
Samho	KOR	34.8667	126.4667	1.19
Samil	KOR	34.8667	127.7833	0.53
Seogwipo	KOR	33.2333	126.5667	0.40
Sokcho	KOR	38.2333	128.5500	0.25
Suyong	KOR	35.1500	129.1500	0.49
Taeon	KOR	36.9167	126.2333	0.65
Tongyong	KOR	34.8333	128.4167	0.50
Ulsan	KOR	35.4833	129.4000	0.49
Wando	KOR	34.3667	126.6667	0.47
Yeonpyung	KOR	37.6000	125.7167	0.56
Yosu	KOR	34.7500	127.7833	0.50
Amchite	LBN	34.1500	35.6167	0.98
Beirut	LBN	33.9000	35.5167	1.01
Chekka	LBN	34.3333	35.7333	0.80
Dbayeh	LBN	33.9333	35.5833	1.01
Enfeh	LBN	34.3500	35.7333	0.83
Jbeil	LBN	34.1000	35.6333	0.98
Jounieh	LBN	33.9833	35.6500	1.01
Khalde	LBN	33.8000	35.4833	1.09
Ouzai	LBN	33.8333	35.4833	1.09
Tripoli(LBN)	LBN	34.4667	35.8333	0.83
Abu Kammash	LBY	33.0667	11.8167	1.18
Az Zawiyah	LBY	32.8167	12.7167	1.17
Derna	LBY	32.7667	22.6500	1.26
Mellitah	LBY	32.8833	12.2500	1.17
Ras el Hilal	LBY	32.9167	22.1833	1.10
Klaipeda	LTU	55.7167	21.1333	0.88
Engure	LVA	57.1667	23.2333	0.60
Labrags	LVA	56.9833	21.3667	0.66
Liepaja	LVA	56.5167	21.0167	0.85
Mersrags	LVA	57.3667	23.1333	0.69
Pavilosta	LVA	56.9000	21.1833	0.82
Riga	LVA	56.9667	24.1000	0.88
Roja	LVA	57.5000	22.8167	0.71
Salacgriva	LVA	57.7500	24.3667	0.81
Skulte	LVA	57.3167	24.4000	0.85
Ventspils	LVA	57.4000	21.5500	0.79
Agadir	MAR	30.4167	-9.6333	1.15
Al Hoceima	MAR	35.2500	-3.9000	1.05
Casablanca	MAR	33.6167	-7.6000	1.21
El Jadida	MAR	33.2667	-8.5167	1.22
Jorf Lasfar	MAR	33.1167	-8.6333	1.08
Larache	MAR	35.2000	-6.1500	0.94
Mehdia	MAR	34.3000	-6.6500	1.24

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Mohammedia	MAR	33.7167	-7.3667	1.08
Nador	MAR	35.2667	-2.9167	1.00
Rabat	MAR	34.0333	-6.8333	1.23
Safi	MAR	32.3000	-9.2500	1.07
Tangier	MAR	35.7833	-5.8000	1.17
Monte Carlo	MCO	43.7333	7.4167	0.40
El Sauzal	MEX	31.8833	-116.6833	0.92
Ensenada(MEX)	MEX	31.8500	-116.6333	0.82
Morro Redondo	MEX	28.0500	-115.1833	1.19
Gozo Is.	MLT	36.0667	14.2167	1.11
Marsaxlokk	MLT	35.8167	14.5667	1.14
Mgarr	MLT	36.0167	14.3000	1.11
St. Paul's Bay	MLT	35.9500	14.4000	1.14
Valletta	MLT	35.9000	14.5167	1.14
Cap Blanc	MRT	20.7667	-17.0500	1.27
Nouadhibou	MRT	20.9000	-17.0500	1.27
Nouakchott	MRT	18.0333	-16.0333	1.22
Point Central	MRT	20.8167	-17.0333	1.27
Pointe des Mouettes	MRT	20.8333	-17.0333	1.27
Port de L'Amitie	MRT	18.0000	-16.0333	1.22
Bar	MTG	42.0833	19.0833	0.17
Bijela	MTG	42.4500	18.6667	0.94
Budva	MTG	42.2833	18.8500	0.30
Herceg Novi	MTG	42.4500	18.5333	0.64
Lipci	MTG	42.4833	18.6667	1.11
Petrovac	MTG	42.2000	18.9167	0.90
Tivat	MTG	42.4333	18.7000	0.96
Ulcinj	MTG	41.9167	19.2000	0.89
Zelenika	MTG	42.4500	18.5833	0.75
Oranjemund	NAM	-28.5667	16.3667	1.27
Walvis Bay	NAM	-22.9500	14.5000	1.26
Aalst	NLD	51.3833	5.4500	1.19
Akkrum	NLD	53.0500	5.8333	1.10
Alblasserdam	NLD	51.8667	4.6167	1.14
Almelo	NLD	52.3667	6.6333	1.19
Almere-Haven	NLD	52.3333	5.2167	1.08
Ameide	NLD	51.9500	4.9500	1.16
Ameland	NLD	53.4500	5.6333	1.24
Amsterdam	NLD	52.3667	4.9000	1.10
Arnhem	NLD	51.9667	5.8833	1.12
Assen	NLD	53.0000	6.5667	0.87
Axel Sassing	NLD	51.2833	3.8667	1.19
Balk	NLD	52.9000	5.5667	1.16
Bergambacht	NLD	51.9333	4.7833	1.16
Bergen-op-Zoom	NLD	51.5000	4.2667	1.16
Bergum	NLD	53.2000	5.9833	1.00
Bolnes	NLD	51.9000	4.5667	1.14
Breskens	NLD	51.4000	3.5667	0.93
Bruinisse	NLD	51.6667	4.1000	1.09
Buitenhuizen	NLD	52.4333	4.7167	1.15
Capelle aan den Yssel	NLD	51.9167	4.5667	1.14



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Culemborg	NLD	51.9500	5.2167	1.10
Deest	NLD	51.8833	5.6667	1.12
Delfzijl	NLD	53.3333	6.9333	1.29
Den Bommel	NLD	51.7167	4.2833	1.11
Den Helder	NLD	52.9667	4.7833	1.17
Den Oever	NLD	52.9167	5.0167	1.16
Deventer	NLD	52.2500	6.1500	1.16
Dintelmond	NLD	51.6667	4.3833	1.14
Dinteloord	NLD	51.6333	4.3667	1.13
Dodewaard	NLD	51.9000	5.6333	1.12
Doesburg	NLD	52.0167	6.1333	1.14
Doetinchem	NLD	51.9667	6.2833	1.10
Domburg	NLD	51.5667	3.5000	1.15
Dordrecht	NLD	51.8000	4.6500	1.15
Drachten	NLD	53.1167	6.1000	1.00
Druten	NLD	51.8833	5.6167	1.12
Eemshaven	NLD	53.4500	6.8333	1.29
Eindhoven	NLD	51.4333	5.5000	1.19
Europoort	NLD	51.9500	4.0833	1.08
Farmsum	NLD	53.3167	6.9333	1.29
Fijnaart	NLD	51.6333	4.4833	1.17
Flushing	NLD	51.4500	3.5833	0.93
Foxhol	NLD	53.1667	6.7167	1.19
Franeker	NLD	53.1833	5.5500	1.24
Geertruidenberg	NLD	51.7167	4.8667	1.13
Gendt	NLD	51.8667	5.9833	1.12
Gorinchem	NLD	51.8167	4.9833	1.14
Grave	NLD	51.7500	5.7500	1.14
Groningen	NLD	53.2333	6.5333	1.05
Groot-Ammers	NLD	51.9167	4.8333	1.16
Grouw	NLD	53.1000	5.8500	1.00
Haarlem	NLD	52.3833	4.6500	1.22
Hansweert	NLD	51.4500	4.0000	1.22
Hardinxveld	NLD	51.8167	4.8500	1.17
Harlingen	NLD	53.1833	5.4167	1.21
Hasselt	NLD	52.5833	6.0833	1.21
Heerenveen	NLD	52.9500	5.9167	0.99
Heerewaarden	NLD	51.8167	5.3833	1.14
Heerjansdam	NLD	51.8333	4.5667	1.15
Heijen	NLD	51.6833	5.9833	1.13
Hellevoetsluis	NLD	51.8167	4.1333	1.06
Hendrik Ido Ambacht	NLD	51.8500	4.6167	1.15
Hengelo	NLD	52.2667	6.7667	1.18
Heusden	NLD	51.7333	5.1500	1.13
Hoogezand	NLD	53.1667	6.7500	1.18
Hook of Holland	NLD	51.9833	4.1167	1.11
Huissen	NLD	51.9167	5.9167	1.12
Kampen	NLD	52.5833	5.8000	1.14
Katwijk aan Zee	NLD	52.2000	4.4000	1.08
Kinderdijk	NLD	51.8833	4.6333	1.14
Koog aan den Zaan	NLD	52.4500	4.8167	1.25

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kootstertille	NLD	53.2167	6.0833	1.20
Krimpen aan den Yssel	NLD	51.9000	4.5833	1.14
Leeuwarden	NLD	53.2000	5.7833	1.21
Lekkerkerk	NLD	51.9167	4.6333	1.14
Lelystad	NLD	52.5000	5.4333	1.15
Lemmer	NLD	52.8500	5.6833	1.15
Lithoyen	NLD	51.8167	5.4333	1.14
Lobith	NLD	51.8667	6.1333	1.13
Lochem	NLD	52.1667	6.4167	1.14
Maasbracht	NLD	51.1333	5.8667	1.23
Maashees	NLD	51.5667	6.0333	1.17
Maassluis	NLD	51.9167	4.2500	1.07
Maastricht	NLD	50.8500	5.6833	1.21
Made	NLD	51.6833	4.8000	1.14
Makkum	NLD	53.0667	5.4000	1.21
Meppel	NLD	52.7000	6.2000	1.23
Middelharnis	NLD	51.7833	4.2000	1.04
Millingen aan den Rijn	NLD	51.8667	6.0333	1.13
Moerdijk	NLD	51.7000	4.6167	1.11
Monnickendam	NLD	52.4667	5.0333	1.08
Muiden	NLD	52.3167	5.0667	1.08
Nieuw Lekkerland	NLD	51.8833	4.6333	1.14
Nieuwerkerk aan den Yssel	NLD	51.9667	4.5833	1.14
Nijkerk	NLD	52.2167	5.4833	1.16
Nijmegen	NLD	51.8333	5.8333	1.14
Numansdorp	NLD	51.7167	4.4167	1.09
Odijk	NLD	52.0333	5.2167	1.11
Ooltgensplaat	NLD	51.6833	4.3333	1.12
Oosterhout	NLD	51.6167	4.8667	1.16
Oostvoorne	NLD	51.9167	4.0833	1.08
Oss	NLD	51.7667	5.5167	1.14
Ouderkerk	NLD	51.9333	4.6000	1.14
Oudewater	NLD	52.0333	4.8833	1.19
Ouwerkerk	NLD	51.6333	3.9833	1.11
Overschie	NLD	51.9333	4.4167	1.12
Paal	NLD	51.3500	4.1167	1.17
Papendrecht	NLD	51.8333	4.6333	1.15
Raamsdonksveer	NLD	51.7000	4.9167	1.13
Renkum	NLD	51.9667	5.7333	1.12
Rhenen	NLD	51.9500	5.5667	1.12
Ridderkerk	NLD	51.8667	4.5833	1.14
Rijswijk	NLD	51.7833	5.0167	1.14
Roermond	NLD	51.2000	5.9833	1.22
Rotterdam	NLD	51.9000	4.4833	1.12
Sas van Ghent	NLD	51.2333	3.8000	1.20
Scheveningen	NLD	52.1000	4.2667	1.08
Schiedam	NLD	51.9000	4.4000	1.09
'sGravendeel	NLD	51.7667	4.6000	1.15
'sGravenhage	NLD	52.0833	4.3000	1.08
'sHertogenbosch	NLD	51.7000	5.3000	1.10
Sliedrecht	NLD	51.8333	4.7500	1.17

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Slikerveer	NLD	51.8833	4.6000	1.14
Sluiskil	NLD	51.3000	3.8333	1.19
Sneek	NLD	53.0333	5.6667	1.24
Spijk	NLD	51.8667	5.0500	1.11
St. Annaland	NLD	51.6167	4.1000	1.09
Stavenisse	NLD	51.5833	4.0000	1.11
Staveren	NLD	52.8667	5.3500	1.15
Steenwijk	NLD	52.7833	6.1167	1.23
Stein	NLD	50.9667	5.7667	1.21
Stellendam	NLD	51.8000	4.0167	1.13
Stroobos	NLD	53.2333	6.2167	1.20
Swalmen	NLD	51.2167	6.0167	1.22
Tegelen	NLD	51.3500	6.1333	1.20
Terschelling	NLD	53.3667	5.2167	1.25
Texel	NLD	53.1833	4.8500	1.23
Tiel	NLD	51.8833	5.4500	1.12
Tilburg	NLD	51.5500	5.0667	1.15
Urk	NLD	52.6667	5.6000	1.13
Utrecht	NLD	52.0833	5.1167	1.24
Venlo	NLD	51.3667	6.1667	1.20
Vlaardingen	NLD	51.9000	4.3500	1.09
Waalwijk	NLD	51.7000	5.0667	1.13
Wageningen	NLD	51.9667	5.6667	1.12
Walsoorden	NLD	51.4500	4.0333	1.22
Wanssum	NLD	51.5333	6.0833	1.17
Wartena	NLD	53.1500	5.9000	0.93
Waterhuizen	NLD	53.1833	6.6333	1.16
Wemeldinge	NLD	51.5167	4.0000	1.19
Werkendam	NLD	51.8000	4.9000	1.17
Westerbroek	NLD	53.1833	6.6833	1.16
Westzaan	NLD	52.4500	4.7833	1.25
Willemstad(NLD)	NLD	51.6833	4.4000	1.11
Wognum	NLD	52.0667	5.0167	1.24
Wolphaartsdijk	NLD	51.5333	3.8167	1.16
Workum	NLD	52.9833	5.4333	1.22
Wormerveer	NLD	52.4667	4.7833	1.18
Woudsend	NLD	52.9333	5.6167	1.16
Yerseke	NLD	51.5000	4.0500	1.19
Ymuiden	NLD	52.4500	4.5833	1.10
Zaandam	NLD	52.4333	4.8333	1.25
Zaltbommel	NLD	51.8000	5.2000	1.12
Zandvoort	NLD	52.3667	4.5333	1.10
Zeist	NLD	52.0833	5.2333	1.11
Zierikzee	NLD	51.6333	3.8833	1.16
Zoutkamp	NLD	53.3333	6.3000	1.23
Zuidbroek	NLD	53.1667	6.8667	1.27
Zuilichem	NLD	51.8000	5.1167	1.12
Zutphen	NLD	52.1333	6.2000	1.14
Zwartsluis	NLD	52.6333	6.0667	1.21
Zwijndrecht(NLD)	NLD	51.8167	4.6500	1.15
Zwolle	NLD	52.5167	6.1167	1.21

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Aagotnes	NOR	60.4000	5.0167	0.66
Aaheim	NOR	62.0500	5.5167	1.11
Aakra	NOR	59.7833	6.1000	0.30
Aalefjaer	NOR	58.2333	8.0333	1.00
Aalvik	NOR	60.4333	6.4000	0.48
Aandalsnes	NOR	62.5667	7.6833	0.26
Aardal	NOR	61.2333	7.6833	0.69
Aardalstangen	NOR	61.2333	7.7000	0.69
Abelsnes	NOR	58.2333	6.6500	0.95
Agnefest	NOR	58.1167	7.0500	0.97
Alta	NOR	69.9667	23.2500	0.48
Anfiskaa	NOR	66.2833	14.1000	0.52
Askoy	NOR	60.4000	5.1667	0.55
Askvoll	NOR	61.3500	5.0667	0.84
Austevoll	NOR	60.1000	5.2500	1.03
Balholm	NOR	61.2167	6.5333	0.44
Ballangen	NOR	68.3667	16.9333	0.59
Balsfjord	NOR	69.3167	19.3500	0.69
Bergen	NOR	60.4000	5.3167	0.48
Bogen	NOR	68.5167	17.0000	0.65
Bremanger	NOR	61.8500	4.9500	0.88
Brevik	NOR	59.0500	9.7167	1.04
Bryggja	NOR	61.9333	5.4167	0.39
Buvika	NOR	63.3167	10.1833	0.29
Bygstad	NOR	61.3833	5.6667	0.00
Dalen	NOR	59.0667	9.7000	1.04
Deknepoll	NOR	61.9167	5.1333	0.94
Dirdal	NOR	58.7833	6.2333	0.09
Dolvik	NOR	60.3167	5.2500	0.57
Eide	NOR	60.5167	6.7167	0.52
Eidfjord	NOR	60.4667	7.0667	0.62
Eikefet	NOR	60.7000	5.5500	0.13
Eikefjord	NOR	61.6000	5.4667	0.27
Eitrheimsneset	NOR	60.1000	6.5333	0.56
Elvalandet	NOR	64.5667	11.4167	0.93
Elvebakken	NOR	69.9167	23.4167	0.51
Espevik	NOR	59.3333	5.6833	0.97
Etne	NOR	59.6667	5.9500	0.19
Fagervika	NOR	66.1167	12.8500	0.74
Farsund	NOR	58.1000	6.8167	0.95
Feda	NOR	58.2667	6.8167	0.76
Festoy	NOR	62.3667	6.3333	1.06
Fevag	NOR	63.6667	9.8333	1.20
Fiborgtangen	NOR	63.7167	11.1667	0.46
Finneid	NOR	67.2500	15.4000	0.34
Finnsnes	NOR	69.2333	17.9667	0.47
Fiskarstranda	NOR	62.4333	6.2667	1.26
Fitjar	NOR	59.9167	5.2833	0.68
Flaam	NOR	60.8333	7.1333	0.84
Flekkefjord	NOR	58.3000	6.6667	0.60
Flora	NOR	62.3000	7.3500	0.65

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Florvaag	NOR	60.4500	5.2167	0.45
Follafoss	NOR	63.9833	11.1000	0.42
Forde(Fordefjord)	NOR	61.4500	5.8500	0.13
Forde(Fuglesetfjord)	NOR	61.0333	5.8167	0.36
Fosen	NOR	59.3167	5.3667	1.25
Fusa	NOR	60.2000	5.6167	0.30
Garnes	NOR	60.4333	5.4833	0.24
Gaupne	NOR	61.4167	7.3000	0.52
Geiranger	NOR	62.1000	7.2167	0.88
Glaerem	NOR	63.0167	8.5167	0.12
Glomfjord	NOR	66.8167	13.6167	0.90
Gudvangen	NOR	60.8667	6.8333	0.71
Gullsmedvik	NOR	66.3333	14.1500	0.52
Gurskebotn	NOR	62.2167	5.6500	0.86
Halsa	NOR	66.7500	13.5667	0.88
Halsvik	NOR	60.8333	5.0833	0.99
Hammerfall	NOR	67.4167	15.5333	0.52
Haugsvik	NOR	61.8333	5.0000	0.43
Hekkelstrand	NOR	68.4000	16.8333	0.59
Hellestrand	NOR	61.3333	5.1167	0.96
Hellesylt	NOR	62.0833	6.8833	0.55
Helvig	NOR	58.1000	6.7500	0.95
Herroysund	NOR	59.9167	5.7833	0.22
Herre	NOR	59.1000	9.5333	0.75
Hjelmaas	NOR	60.5833	5.3500	0.45
Hjelset	NOR	62.7667	7.5000	0.46
Holla	NOR	63.2833	9.1167	0.50
Holmedal	NOR	61.3500	5.1833	0.60
Hommelvik	NOR	63.4167	10.8000	0.42
Hoyanger	NOR	61.2167	6.0667	0.48
Hoylandsbygdi	NOR	59.7667	5.7833	0.41
Hoylandssundet	NOR	59.7833	5.8000	0.41
Husnes	NOR	59.8667	5.7667	0.22
Ikornnes	NOR	62.3833	6.5167	0.64
Innhavet	NOR	67.9667	15.9333	0.66
Jovik	NOR	69.6000	19.8333	1.17
Kaafjord	NOR	69.5833	20.5167	1.26
Kaupanger	NOR	61.1833	7.2333	0.51
Kirkenes	NOR	69.7333	30.0500	1.10
Kjopsvik	NOR	68.0833	16.3833	0.75
Knarrevik	NOR	60.3667	5.1667	0.55
Kongsmoen	NOR	64.8833	12.4333	0.32
Kopervik	NOR	59.2833	5.3000	1.18
Kvinesdal	NOR	58.3000	7.0000	0.40
Kyrksaetrora	NOR	63.2833	9.0833	0.50
Laerdalsoyri	NOR	61.1000	7.4833	0.68
Laksevaag	NOR	60.3833	5.3000	0.48
Langangen	NOR	59.0833	9.8000	0.86
Langevag	NOR	62.4333	6.2500	1.26
Langstein	NOR	63.5500	10.9167	0.46
Larsnes	NOR	62.2000	5.6500	0.86

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Leirvik	NOR	59.7667	5.5167	0.59
Levanger	NOR	63.7500	11.3000	0.46
Lofallstrand	NOR	60.0167	6.0000	0.45
Lyngdal	NOR	58.1333	7.0333	0.86
Maaloy	NOR	61.9167	5.1167	0.94
Malm	NOR	64.0667	11.2167	0.42
Malvik	NOR	63.4167	10.6333	0.36
Menstad	NOR	59.1667	9.6500	0.73
Mjosund(NOR)	NOR	63.2333	8.5000	1.21
Mo i Rana	NOR	66.3167	14.1333	0.52
Molde	NOR	62.7333	7.1667	1.22
Molstrevag	NOR	59.5167	5.2667	0.86
Mongstad	NOR	60.8167	5.0333	0.95
Mosjoen	NOR	65.8333	13.1833	0.33
Mosterhamn	NOR	59.7000	5.4000	0.87
Muruvik	NOR	63.4333	10.8500	0.43
Namsos	NOR	64.4667	11.5000	0.53
Narvik	NOR	68.4333	17.4333	0.52
Naustdal	NOR	61.5167	5.7167	0.20
Nesna	NOR	66.2000	13.0167	0.74
Norddal	NOR	62.2500	7.2500	0.56
Nordfjordeid	NOR	61.9000	6.0167	0.17
Nordveitgrend	NOR	60.1000	5.7333	0.37
Norheimsund	NOR	60.3667	6.1500	0.49
Nystrand	NOR	59.1000	9.7167	0.90
Odda	NOR	60.0667	6.5500	0.56
Olden	NOR	61.8333	6.8167	0.71
Olen(NOR)	NOR	59.6000	5.8333	0.26
Omastrand	NOR	60.2167	5.9667	0.41
Onarheim	NOR	59.9500	5.6500	0.35
Orkanger	NOR	63.3167	9.8500	0.22
Orsta	NOR	62.2000	6.1500	0.25
Oystese	NOR	60.3833	6.2167	0.45
Porsgrunn	NOR	59.1333	9.6500	0.75
Rafnes	NOR	59.1000	9.6000	1.18
Ramsund	NOR	68.4833	16.5167	1.10
Ramsvika	NOR	62.9333	7.4000	1.18
Raudsand	NOR	62.8333	8.1000	0.21
Repparfjord	NOR	70.4333	24.2500	0.99
Revsnes	NOR	61.1500	7.2667	0.77
Risnes	NOR	61.1500	5.1667	0.88
Rognan	NOR	67.0833	15.3667	0.52
Ronningen	NOR	63.7000	10.5833	0.34
Rosendal	NOR	59.9833	6.0167	0.41
Rubbestadneset	NOR	59.8167	5.2833	0.52
Sagvaag	NOR	59.7667	5.3833	0.61
Salsbruket	NOR	64.8000	11.8833	0.26
Sandane	NOR	61.7667	6.2167	0.45
Sandnes	NOR	58.8500	5.7500	0.64
Sauda	NOR	59.6500	6.3500	0.23
Skaalevik	NOR	60.3667	5.2167	0.51

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Skaanevik	NOR	59.7500	5.9333	0.20
Skien	NOR	59.2000	9.6167	0.68
Sogndal	NOR	61.2333	7.1000	0.48
Solevaag	NOR	62.4000	6.3333	1.06
Sorreisa	NOR	69.1333	18.1333	0.57
Spjelkavik	NOR	62.4500	6.3667	1.07
Steinkjer	NOR	64.0167	11.5000	0.44
Stjordal	NOR	63.4500	10.8833	0.43
Stord	NOR	59.7833	5.5167	0.59
Stryn	NOR	61.9167	6.7333	0.49
Sunnalsora	NOR	62.6833	8.6000	0.56
Svelgen	NOR	61.7667	5.3000	0.21
Sykkylven	NOR	62.3833	6.5833	0.46
Thamshavn	NOR	63.3333	9.8667	0.22
Tomra	NOR	62.5667	6.9167	0.67
Torjul	NOR	62.9667	8.2500	0.56
Tromso	NOR	69.6500	18.9667	0.69
Trondheim	NOR	63.4333	10.4000	0.26
Trosvik	NOR	59.0500	9.7000	0.97
Tyssebotn	NOR	60.6167	5.5833	0.22
Tyssedal	NOR	60.1167	6.5667	0.56
Ulvik	NOR	60.5667	6.9167	0.51
Uskedal	NOR	59.9333	5.8833	0.22
Vaagland	NOR	63.1167	8.3167	0.50
Vadheim	NOR	61.2000	5.8167	0.25
Vaksdal	NOR	60.4833	5.7500	0.27
Valevaag	NOR	59.7000	5.5000	0.75
Verdal	NOR	63.7833	11.4333	0.46
Vestnes	NOR	62.6333	7.0667	0.98
Vettas	NOR	60.6000	5.1500	0.54
Vik(Sognefjord)	NOR	61.0833	6.5833	0.46
Vikholmen	NOR	66.2000	12.9667	0.73
Volda	NOR	62.1500	6.0667	0.27
Auckland	NZL	-36.8500	174.8000	1.05
Christchurch	NZL	-43.5500	172.6667	1.12
Gisborne	NZL	-38.6833	178.0333	0.77
Greymouth	NZL	-42.4333	171.2167	1.23
Lyttelton	NZL	-43.6167	172.7167	1.22
Milford Sound	NZL	-44.6833	167.9333	0.63
Mount Maunganui	NZL	-37.6833	176.2333	1.14
Napier	NZL	-39.4833	176.9167	0.76
New Plymouth	NZL	-39.0667	174.0833	0.98
Onehunga	NZL	-36.9333	174.7667	1.05
Picton(NZL)	NZL	-41.2667	174.0000	0.95
Tauranga	NZL	-37.6500	176.1667	1.13
Wanganui	NZL	-39.9500	175.0000	0.91
Westport(NZL)	NZL	-41.7333	171.5833	1.18
Whakatane	NZL	-37.9500	177.0000	1.16
Ancon	PER	-11.7833	-77.1833	1.18
Callao	PER	-12.0500	-77.1500	1.26
Cerro Azul	PER	-13.0500	-76.5167	1.28

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Chancay	PER	-11.6000	-77.2833	1.25
La Pampilla	PER	-11.9333	-77.1833	1.18
Puerto Bayovar	PER	-5.7833	-81.0500	1.23
Darlowo	POL	54.4333	16.3833	1.09
Elblag	POL	54.1667	19.4000	1.02
Frombork	POL	54.3500	19.6667	0.96
Gdansk	POL	54.3500	18.6500	0.72
Gdynia	POL	54.5333	18.5500	0.66
Kolobrzeg	POL	54.1833	15.5667	1.29
Kozle	POL	50.3167	18.1333	1.15
Niechorze	POL	54.1000	15.0667	1.18
Plock	POL	52.5333	19.6667	1.24
Police	POL	53.5500	14.6000	1.18
Puck	POL	54.7167	18.3500	0.82
Stepnica	POL	53.6500	14.6333	1.18
Swinoujscie	POL	53.9333	14.2833	0.75
Szczecin	POL	53.4167	14.5500	1.14
Tczew	POL	54.0833	18.7667	0.88
Ustka	POL	54.5833	16.8667	0.65
Wladyslawowo	POL	54.8000	18.4167	0.64
Wroclaw	POL	51.0833	17.0000	1.16
Chongjin	PRK	41.7667	129.8167	1.02
Haeju	PRK	38.0000	125.7000	0.73
Hungnam	PRK	39.8000	127.6667	0.70
Kosong(PRK)	PRK	38.6000	128.3500	0.24
Rajin	PRK	42.1833	130.3167	1.28
Sinpo	PRK	40.0167	128.1667	0.88
Songjin	PRK	40.6667	129.2000	0.92
Wonsan	PRK	39.1667	127.4333	0.64
Albufeira	PRT	37.0833	-8.2500	0.91
Angra do Heroismo	PRT	38.6500	-27.2167	1.10
Aveiro	PRT	40.6500	-8.7500	0.75
Corvo Is.	PRT	39.6667	-31.1167	1.08
Faro	PRT	37.0167	-7.9167	0.85
Fayal	PRT	38.5833	-28.7000	1.10
Figueira da Foz	PRT	40.1500	-8.8667	0.80
Flores Is.	PRT	39.5000	-31.2167	1.08
Graciosa Is.	PRT	39.0500	-28.0500	1.07
Horta	PRT	38.5333	-28.6333	1.10
Lagos(PRT)	PRT	37.0833	-8.6667	0.95
Leixoes	PRT	41.1833	-8.7167	0.74
Olhao	PRT	37.0167	-7.8333	0.85
Peniche	PRT	39.3667	-9.3833	1.25
Pico Is.	PRT	38.4667	-28.3000	1.11
Ponta Delgada(AZO)	PRT	37.7333	-25.6667	1.15
Praia da Graciosa	PRT	39.0500	-27.9667	1.07
Praia da Vitoria	PRT	38.7333	-27.0500	1.09
San Jorge Is.	PRT	38.6667	-28.0500	1.10
San Martinho	PRT	39.5167	-9.1500	1.22
Sesimbra	PRT	38.4333	9.1000	0.93
Setubal	PRT	38.5000	-8.9167	0.93



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
St. Michael's	PRT	37.7333	-25.6667	1.15
Terceira Is.	PRT	38.7167	-27.2167	1.10
Velas	PRT	38.6667	-28.2167	1.10
Vila do Porto	PRT	36.9333	-25.1500	1.16
Annenskiy Most	RUS	60.7167	37.0833	0.95
Balakhna	RUS	56.4833	43.6167	1.24
Baltiysk	RUS	54.6500	19.9000	0.74
Belyy Ruchey	RUS	60.9000	36.8333	0.93
Berezniki	RUS	59.4333	56.8167	1.18
Bolshoy Kamen	RUS	43.1333	132.3333	1.25
Brusnichnoye	RUS	60.7833	28.7333	0.92
Cherepovets	RUS	59.1500	37.8333	1.04
Chkalovsk	RUS	56.7500	43.2333	1.23
Dudinka	RUS	69.4000	86.1667	1.05
Gorokhovets	RUS	56.1833	42.7000	1.24
Igarka	RUS	67.5000	86.6667	1.15
Kaliningrad	RUS	54.7167	20.5167	0.97
Kanonerskiy Is.	RUS	59.9000	30.2167	1.02
Khatanga	RUS	71.9667	102.4167	1.02
Kineshma	RUS	57.4500	42.1167	1.16
Kirovsk	RUS	59.8667	30.9833	0.98
Kondopoga	RUS	62.2000	34.2833	0.91
Korf	RUS	60.3667	165.0167	0.88
Kostroma	RUS	57.7667	40.9333	1.19
Kotlas	RUS	61.2500	46.6500	1.06
Krasnoyarsk	RUS	56.0833	92.7667	1.26
Kronshtadt	RUS	60.0000	29.7667	0.96
Livadiya	RUS	42.8500	132.7000	1.18
Lomonosov	RUS	59.8333	29.8000	0.93
Mago	RUS	53.2500	140.2167	1.16
Medvezhyegorsk	RUS	62.9333	34.4667	0.86
Mondoma	RUS	59.9333	37.4667	0.97
Moryak-Rybolov	RUS	43.3333	134.7833	1.29
Murmansk	RUS	68.9667	33.0833	0.58
Nadvoitsy	RUS	63.9333	34.3333	0.82
Nakhodka	RUS	42.8000	132.9000	1.16
Naryan Mar	RUS	67.6500	53.0167	0.91
Navashino	RUS	55.5500	42.1833	1.27
Nikolayevsk	RUS	53.1333	140.7167	1.12
Nizhnetambovskoye	RUS	50.9333	138.1667	1.20
Nizhniy Novgorod	RUS	56.3333	44.0000	1.24
Nizhnyaya Gavan	RUS	52.4000	140.4333	1.14
Nogliki	RUS	51.8333	143.2000	1.11
Novgorod	RUS	58.5000	31.3333	1.04
Oleniy	RUS	49.4500	143.2833	0.93
Olga	RUS	43.7667	135.2333	1.27
Otradnoye	RUS	59.7667	30.8000	0.99
Pechenga	RUS	69.5500	31.1667	1.20
Pechora	RUS	65.2333	57.3000	1.07
Perm	RUS	58.0167	56.1667	1.24
Petrodvorets	RUS	59.8833	29.9167	0.99

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Petrozavodsk	RUS	61.7667	34.3167	0.90
Pionerskiy	RUS	54.9333	20.2000	0.94
Podporozhye	RUS	60.9167	34.0333	0.96
Posyet	RUS	42.6333	130.8000	1.08
Primorsk	RUS	60.3667	28.6333	0.91
Priozersk	RUS	61.0167	30.1333	0.94
Pudozh	RUS	61.8333	36.5333	0.95
Rybinsk	RUS	58.0167	38.8667	1.10
Segezha	RUS	63.7000	34.3167	0.82
Severomorsk	RUS	69.0833	33.4500	0.95
Shlisselburg	RUS	59.9333	31.1333	0.98
Slavyanka	RUS	42.9167	131.4667	1.15
Solikamsk	RUS	59.6667	56.7500	1.17
St. Petersburg	RUS	59.9333	30.3000	1.02
Svetlyy	RUS	54.6333	20.1500	0.99
Tiksi	RUS	71.6667	129.0000	0.95
Ust-Khayruzovo	RUS	57.0833	156.8333	0.86
Ust-Luga	RUS	59.6667	28.3000	0.86
Vostochnyy	RUS	42.7500	133.0667	1.18
Voznesenye	RUS	61.0167	35.4667	0.96
Vyborg	RUS	60.7167	28.7333	0.92
Vysotsk	RUS	60.6333	28.5667	0.92
Vytegra	RUS	61.0667	36.4500	0.97
Yaroslavl	RUS	57.5667	39.8667	1.17
Zarubino	RUS	42.6667	131.1000	1.13
Mitrovica	SCG	42.9000	20.8667	1.23
Tristan da Cunha	SHN	-37.0333	-12.3000	1.28
Izola	SVN	45.5500	13.6667	0.04
Koper	SVN	45.5547	13.7414	0.06
Piran	SVN	45.5333	13.5667	0.04
Portoroz	SVN	45.5167	13.5833	0.04
Aelvenaes	SWE	59.3667	13.1833	0.81
Ahus	SWE	55.9333	14.3167	0.42
Amal	SWE	59.0500	12.7167	0.81
Angelholm	SWE	56.2500	12.8667	1.20
Ar	SWE	57.9167	18.9500	0.56
Arvika	SWE	59.6667	12.5833	0.80
Backfors	SWE	64.5000	21.4167	0.43
Backviken	SWE	55.9000	12.7167	0.95
Balsta	SWE	59.5500	17.5500	0.84
Bastad	SWE	56.4167	12.8333	1.15
Bergkvara	SWE	56.3833	16.0833	0.49
Borgholm	SWE	56.8833	16.6500	0.54
Bungenas	SWE	57.8167	19.0833	0.56
Burea	SWE	64.6167	21.2500	0.43
Byxelkrok	SWE	57.3000	17.0333	0.49
Dalaro	SWE	59.1333	18.4167	0.51
Degerhamn	SWE	56.3500	16.4167	0.51
Edsvalla	SWE	59.4333	13.2333	0.81
Elleholm	SWE	56.1667	14.7333	0.84
Enkoping	SWE	59.6333	17.0833	0.74

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Falkenberg	SWE	56.8833	12.5000	1.23
Farjestaden	SWE	56.6500	16.4667	0.50
Farosund	SWE	57.8667	19.0667	0.56
Fiskeback	SWE	57.8667	14.1000	0.73
Fittja	SWE	59.2333	17.8500	0.94
Forsmark	SWE	60.4167	18.2000	0.43
Furillen	SWE	57.7667	19.0000	0.55
Furusund	SWE	59.6500	18.9000	0.49
Gamleby	SWE	57.9000	16.4167	0.86
Gefle	SWE	60.6667	17.1667	0.59
Grisslehamn	SWE	60.1000	18.8167	0.43
Gruvon	SWE	59.3333	13.1167	0.81
Hallekis	SWE	58.6667	13.4167	0.81
Hallstavik	SWE	60.0500	18.6000	0.44
Halmstad	SWE	56.6667	12.8500	1.21
Haparanda	SWE	65.8333	24.1333	0.71
Haraholmen	SWE	65.2333	21.6333	0.69
Hargshamn	SWE	60.1667	18.4833	0.44
Hasselby	SWE	59.3667	17.8167	0.91
Helsingborg	SWE	56.0500	12.6833	1.15
Hernosand	SWE	62.6333	17.9333	0.64
Hoganas	SWE	56.2000	12.5500	1.20
Hoglunda	SWE	59.4167	13.2500	0.81
Hogmarso	SWE	59.6500	18.8500	0.49
Honsater	SWE	58.6333	13.4500	0.81
Hornefors	SWE	63.6167	19.9000	0.65
Hudiksvall	SWE	61.7167	17.1167	0.43
Iggesund	SWE	61.6500	17.1000	0.43
Kagehamn	SWE	64.8333	21.0333	0.65
Kalix	SWE	65.8500	23.1333	0.68
Kallvik	SWE	57.8833	16.7167	0.53
Kallviken	SWE	64.3333	21.3667	0.63
Kalmar	SWE	56.6667	16.3667	0.50
Kalmarsand	SWE	59.5333	17.5167	0.84
Kapellskar	SWE	59.7167	19.0000	0.43
Kappelshamn	SWE	57.8500	18.7833	0.56
Karlshamn	SWE	56.1667	14.8667	0.77
Karlskrona	SWE	56.1667	15.6000	0.76
Karlstad	SWE	59.3833	13.5167	0.81
Klagshamn	SWE	55.5167	12.8833	0.97
Klintehamn	SWE	57.3833	18.2000	0.85
Koping	SWE	59.5167	16.0000	0.71
Kopmannebro	SWE	58.7667	12.5167	0.84
Kopparverkshamn	SWE	56.0167	12.7167	1.15
Kristinehamn	SWE	59.3167	14.1167	0.81
Krokstad	SWE	59.1000	12.9167	0.82
Kungors	SWE	59.4333	16.1000	0.74
Kyrkebyn	SWE	59.2667	13.0667	0.81
Landskrona	SWE	55.8667	12.8333	1.15
Landsort	SWE	58.7333	17.8667	0.47
Lidkoping	SWE	58.5000	13.1667	0.82

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Liljeholmsviken	SWE	59.3167	18.0000	0.94
Limhamn	SWE	55.5833	12.9333	0.95
Ljustero	SWE	59.5167	18.6333	0.82
Lomma	SWE	55.6833	13.0667	1.13
Loudden	SWE	59.3333	18.1333	0.96
Lulea	SWE	65.5833	22.1667	0.71
Malmo	SWE	55.6167	13.0000	1.15
Mariestad	SWE	58.7167	13.8333	0.82
Marsviken	SWE	58.6667	16.9500	0.84
Mem	SWE	58.4833	16.4167	0.83
Monsteras	SWE	57.0333	16.4667	0.83
Morbylanga	SWE	56.5333	16.3667	0.50
Motala	SWE	58.5333	15.0667	0.81
Munksund	SWE	65.2833	21.4833	0.68
Norrkoping	SWE	58.6000	16.2000	0.82
Norrundet	SWE	60.9500	17.1667	0.60
Norrtalje	SWE	59.7500	18.7000	0.78
Norsbron	SWE	59.4167	13.2333	0.81
Nykoping	SWE	58.7500	17.0167	0.84
Nynashamn	SWE	58.9000	17.9500	0.47
Oaxen	SWE	55.9667	17.7167	0.59
Orebro	SWE	59.2833	15.1833	0.79
Oregrund	SWE	60.3333	18.4500	0.44
Ornskoldsvik	SWE	63.2667	18.7167	0.68
Oskarshamn	SWE	57.2667	16.4500	0.83
Otterbacken	SWE	58.9500	14.0500	0.79
Oxelosund	SWE	58.6667	17.1167	0.47
Pataholm	SWE	56.9167	16.4333	0.50
Raa	SWE	55.9833	12.7500	1.15
Ronehamn	SWE	57.1667	18.5333	0.60
Ronneby	SWE	56.1667	15.3000	0.76
Ronnskar	SWE	64.6667	21.2833	0.43
Rundvik	SWE	63.5333	19.4500	0.66
Saffle	SWE	59.1333	12.9333	0.82
Sandhamn	SWE	59.2833	18.9000	0.47
Sankt Anna	SWE	58.3333	16.7000	0.85
Seskaro Is.	SWE	65.7167	23.7500	0.40
Sikea	SWE	64.1333	20.9833	0.46
Simpevarp	SWE	57.4167	16.6667	0.48
Simrishamn	SWE	55.5500	14.3667	0.46
Sjotorp	SWE	58.8333	14.0000	0.81
Skattkar	SWE	59.4167	13.7000	0.81
Skelleftea	SWE	64.7333	20.9500	0.63
Skoghall	SWE	59.3167	13.4500	0.84
Skutskar	SWE	60.6500	17.4000	0.66
Slite	SWE	57.7000	18.8167	0.61
Slottsbron	SWE	59.3333	13.1000	0.81
Soderhamn	SWE	61.3167	17.1000	0.42
Soderkoping	SWE	58.4833	16.3333	0.81
Sodertalje	SWE	59.2000	17.6333	0.51
Solvesborg	SWE	56.0500	14.5833	0.81

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Soraker	SWE	62.5000	17.5000	0.67
Spesshult	SWE	59.0667	12.9167	0.82
Stavsnas	SWE	59.2833	18.6833	0.49
Stockholm	SWE	59.3167	18.0500	0.96
Stocksund	SWE	59.3833	18.0500	0.94
Stora Vika	SWE	58.9333	17.7833	0.47
Storugns	SWE	57.8333	18.8000	0.56
Straa	SWE	57.9000	19.0333	0.56
Strangnas	SWE	59.3833	17.0333	0.76
Studsvik	SWE	58.7500	17.2833	0.86
Sturko	SWE	56.0833	15.6667	0.76
Sundsvall	SWE	62.4167	17.3333	0.61
Taxinge	SWE	59.2167	17.3669	0.84
Torko	SWE	56.1500	15.4000	0.76
Trelleborg	SWE	55.3667	13.1500	0.88
Umea	SWE	63.7000	20.3500	0.42
Uppsala	SWE	59.8667	17.6500	0.85
Valdemarsvik	SWE	58.2000	16.6000	0.83
Vaxholm	SWE	59.3833	18.3333	0.91
Vesteras	SWE	59.6000	16.4333	0.72
Vestervik	SWE	57.7500	16.6500	0.52
Visby	SWE	57.6500	18.2833	0.85
Ystad	SWE	55.4333	13.8333	0.84
Arwad Is.	SYR	34.8500	35.8500	1.09
Borj Islam	SYR	35.6667	35.8000	1.19
Lattakia	SYR	35.5167	35.7667	1.19
Tartous	SYR	34.9000	35.8667	1.09
Ajim	TUN	33.7167	10.7333	1.14
Bizerta	TUN	37.2667	9.8833	0.97
Cap Bon	TUN	37.0833	11.0500	1.01
Gabes	TUN	33.9500	10.0667	1.25
Galita Is.	TUN	37.5333	8.9333	0.97
Kelibia	TUN	36.8333	11.0833	1.03
La Goulette	TUN	36.8167	10.3000	1.11
La Skhira	TUN	34.2333	10.0667	1.25
Rades	TUN	36.8000	10.2333	1.11
Ras Dimasse	TUN	35.5833	11.0167	1.11
Sfax	TUN	34.7333	10.7667	1.22
Sousse	TUN	35.8333	10.6500	1.11
Tabarka	TUN	36.9667	8.7667	0.85
Zarzis	TUN	33.5000	11.1167	1.15
Akcay	TUR	39.5833	26.9000	0.38
Alanya	TUR	36.5333	32.0000	0.78
Aliaga	TUR	38.8000	26.9833	0.73
Amasra	TUR	41.7500	32.3833	1.28
Ambarli	TUR	40.9667	28.7000	0.62
Anamur	TUR	36.0167	32.8167	0.79
Antalya	TUR	36.8333	30.6167	0.64
Ayvalik	TUR	39.3167	26.7167	1.01
Bandirma	TUR	40.3500	27.9667	0.41
Bodrum	TUR	37.0333	27.4167	1.27

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bozcaada	TUR	39.8333	26.0667	0.93
Camalti	TUR	38.5000	26.8833	0.66
Canakkale	TUR	40.1500	26.4167	0.23
Cekmece	TUR	40.9833	28.5500	0.60
Cesme	TUR	38.3167	26.3000	1.17
Ceyhan	TUR	36.8833	35.9333	1.05
Darica	TUR	40.7500	29.3833	0.62
Derince	TUR	40.7500	29.8167	0.60
Dikili	TUR	39.0833	26.8833	0.59
Diliskelesi	TUR	40.7667	29.5333	0.60
Dortyol	TUR	36.8333	36.2333	0.60
Edincik	TUR	40.3500	27.8667	0.41
Edremit	TUR	39.5833	26.9500	0.38
Erdek	TUR	40.4000	27.7833	0.44
Eregli	TUR	41.3000	31.4500	1.27
Eregli(Sea of Marmara)	TUR	40.9667	27.9667	0.56
Fethiye	TUR	36.6333	29.1000	0.74
Finike	TUR	36.3000	30.1500	0.69
Gebze	TUR	40.7667	29.4333	0.62
Gelibolu	TUR	40.4167	26.6833	0.37
Gemlik	TUR	40.4333	29.1500	0.59
Gocek	TUR	36.7500	28.9833	0.76
Gokceada	TUR	40.2000	25.9000	0.79
Gokova	TUR	37.0500	28.3667	0.68
Golcuk	TUR	40.7167	29.8000	0.60
Gulluk	TUR	37.2500	27.6333	0.96
Haydarpasa	TUR	41.0000	29.0167	0.61
Hereke	TUR	40.7000	29.6167	0.60
Icdas	TUR	40.4500	27.1333	0.37
Igsas	TUR	40.7500	29.7500	0.60
Istanbul	TUR	41.0000	28.9667	0.59
Izmir	TUR	38.4333	27.1333	0.73
Izmit	TUR	40.7667	29.9167	0.62
Kabatepe	TUR	40.2000	26.2000	0.77
Karabiga	TUR	40.4000	27.3000	0.49
Karacabey	TUR	40.2333	28.3667	0.59
Kartal	TUR	40.8833	29.1833	0.61
Kas	TUR	36.2000	29.6333	0.33
Kepez	TUR	40.1058	26.3781	0.23
Kumport	TUR	40.9667	28.6833	0.62
Kurucasile	TUR	41.8333	32.7000	1.29
Kusadasi	TUR	37.8667	27.2333	0.69
Maltepe	TUR	40.9000	29.1500	0.61
Marmaris	TUR	36.8500	28.2667	0.91
Marport	TUR	40.9667	28.6667	0.62
Mersin	TUR	36.8000	34.6333	0.98
Mudanya	TUR	40.4500	28.8667	0.59
Nemrut Bay	TUR	38.7500	26.9167	1.12
Payas	TUR	36.7500	36.1833	0.60
Pendik	TUR	40.9000	29.2500	0.61
Saraylar	TUR	40.6500	27.6667	0.50

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Silivri	TUR	41.0500	28.2667	0.58
Sinop	TUR	42.0000	35.1500	1.29
Sugozu	TUR	36.8667	35.9500	1.05
Tavsancil	TUR	40.7833	29.5833	0.60
Tekirdag	TUR	40.9500	27.5000	0.52
Toros Gubre	TUR	36.9167	35.9833	1.05
Tutunciftlik	TUR	40.7500	29.7833	0.60
Tuzla	TUR	40.8092	29.3481	0.62
Uskudar	TUR	41.0167	29.0167	0.59
Yalova	TUR	40.6667	29.2500	0.60
Yarimca	TUR	40.7333	29.7667	0.60
Yenikoy	TUR	40.7333	29.9000	0.62
Yumurtalik	TUR	36.7667	35.7500	1.05
Zeytinburnu	TUR	40.7500	29.7667	0.60
Colonia	URY	-34.4667	-57.8500	1.18
Juan Lacaze	URY	-34.4333	-57.4167	1.23
La Paloma	URY	-34.6500	-54.1500	0.75
Maldonado	URY	-34.9500	-54.9500	0.95
Montevideo	URY	-34.9000	-56.2667	1.04
Nueva Palmira	URY	-33.8833	-58.4167	1.11
Piriapolis	URY	-34.8667	-55.2667	0.97
Punta del Este	URY	-34.9667	-54.9500	0.95
Alpena	USA	45.0500	-83.4333	1.17
Ashland	USA	46.5833	-90.9000	1.08
Avila	USA	35.1667	-120.7333	0.95
Bar Hbr.	USA	44.3833	-68.2000	1.13
Bayfield	USA	46.8000	-90.8000	0.99
Bayway	USA	40.63	-74.20	0.87
Beaufort	USA	32.4333	-80.6667	1.19
Bellingham	USA	48.7500	-122.5000	1.21
Biloxi	USA	30.4000	-88.9000	1.21
Block Is.	USA	41.2333	-71.5833	0.69
Boothbay	USA	43.8333	-69.6500	0.98
Bremerton	USA	47.5667	-122.6167	1.15
Brevort	USA	46.0000	-85.0333	1.11
Bridgeport	USA	41.1500	-73.1833	0.96
Brunswick	USA	31.1333	-81.4833	1.20
Calcite	USA	45.4000	-83.7833	1.05
Camden(ME USA)	USA	44.2167	-69.0667	1.12
Carpinteria	USA	34.4333	-119.6167	0.76
Cedarville	USA	45.9833	-84.3500	0.95
Charlevoix	USA	45.3167	-85.2167	1.25
Cheboygan	USA	45.6667	-84.4667	1.09
Chesapeake	USA	36.7833	-76.3000	0.75
City Is.	USA	40.8500	-73.7833	0.62
Clinton	USA	41.2667	-72.5333	0.72
Cordova	USA	60.5500	-145.7667	1.16
Davisville	USA	41.6167	-71.4000	1.18
Detour	USA	45.9667	-83.8833	0.93
Duluth	USA	46.7333	-92.1500	0.93
East Boothbay	USA	43.8500	-69.5833	1.03

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Edmonds	USA	47.8167	-122.3667	0.95
El Segundo	USA	33.9000	-118.4500	1.16
Elwood	USA	34.4333	-119.8833	0.95
Escanaba	USA	45.7833	-87.0667	1.22
Escatawpa	USA	30.4333	-88.5333	1.18
Estero Bay	USA	35.4000	-120.8833	0.88
Everett(WA)	USA	47.9833	-122.2167	1.05
Ferrysburg	USA	43.0833	-86.2333	1.29
Gaviota	USA	34.4667	-120.2333	1.15
Gloucester(MA USA)	USA	42.6167	-70.6667	1.27
Greenport	USA	41.1000	-72.3500	0.90
Gulfport	USA	30.3500	-89.0833	1.20
Harbor Beach	USA	43.8333	-82.6500	1.23
Hingham	USA	42.2333	-70.8833	1.15
Jamestown(RI USA)	USA	41.5000	-71.3667	0.63
Kalama	USA	46.0167	-122.8333	1.28
Kewaunee	USA	44.4500	-87.5167	1.04
Lake Charles	USA	30.2167	-93.2500	1.25
Long Beach	USA	33.7500	-118.2167	1.22
Longview	USA	46.1333	-122.9333	1.02
Los Angeles	USA	33.7167	-118.2667	1.13
Ludington	USA	43.9667	-86.4500	1.02
Mackinaw City	USA	45.7500	-84.7333	1.10
Madisonville	USA	30.4167	-90.1500	1.27
Mamaroneck	USA	40.9333	-73.7333	0.63
Manistee	USA	44.2500	-86.3333	1.00
Manitowoc	USA	44.1000	-87.6333	1.07
Manteo	USA	35.9000	-75.5833	0.66
Marquette	USA	46.6000	-87.3833	0.86
Melville	USA	41.5833	-71.2833	1.23
Milford(DE USA)	USA	38.9000	-75.4167	0.58
Milwaukee	USA	43.0500	-87.8667	1.25
Mobile	USA	30.6833	-88.0500	1.19
Morro Bay	USA	35.3667	-120.8500	1.09
Moss Landing	USA	36.8000	-121.7833	0.88
Moss Point	USA	30.4167	-88.5167	1.18
Mukilteo	USA	47.9500	-122.3000	1.05
Muskegon	USA	43.1833	-86.2333	1.24
Nantucket Is.	USA	41.2833	-70.1000	1.12
New Bedford	USA	41.6333	-70.9167	0.90
New Haven	USA	41.2500	-72.9000	0.71
Newport News	USA	36.9667	-76.4167	0.74
Newport(RI)	USA	41.4833	-71.3333	0.63
Norfolk(USA)	USA	36.8500	-76.3167	0.75
Northeast Hbr.(USA)	USA	44.3000	-68.2833	1.11
Northport	USA	40.9333	-73.3667	0.66
Northville	USA	40.9833	-72.6500	0.90
Ocean Springs	USA	30.3833	-88.8167	1.19
Oceanside	USA	33.2000	-117.3833	1.10
Olympia	USA	47.0500	-122.9000	1.22
Ontonagon	USA	46.8667	-89.3000	0.96



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Orca	USA	60.5833	-145.7167	1.02
Oyster Bay	USA	40.8833	-73.5167	0.62
Pascagoula	USA	30.3500	-88.5667	1.18
Pass Christian	USA	30.3000	-89.2333	1.17
Patchogue	USA	40.7667	-73.0167	0.54
Pearlington	USA	30.2333	-89.6000	1.24
Pelican	USA	57.9500	-136.2167	1.02
Perth Amboy	USA	40.50	-74.27	0.84
Plymouth(MA USA)	USA	41.9500	-70.6667	0.80
Point Judith	USA	41.3667	-71.4833	0.98
Point Wells	USA	47.7833	-122.4000	0.95
Port Chester	USA	40.9833	-73.6500	0.62
Port Dolomite	USA	45.9667	-84.2667	1.00
Port Gamble	USA	47.8667	-122.5833	1.04
Port Hueneme	USA	34.1525	-119.2036	1.23
Port Inland	USA	45.9667	-85.8667	1.07
Port Royal(USA)	USA	32.3833	-80.7000	1.19
Port San Luis	USA	35.1667	-120.7500	0.95
Port Townsend	USA	48.1167	-122.7500	1.11
Port Washington	USA	43.3833	-87.8667	1.15
Portsmouth(RI USA)	USA	41.6000	-71.2333	1.21
Portsmouth(VA USA)	USA	36.8333	-76.2833	0.75
Rainier	USA	46.0833	-122.9333	1.02
Riverhead	USA	40.9167	-72.6667	0.87
Rockland	USA	44.1000	-69.1167	1.05
Rockport(MI)	USA	45.2000	-83.3833	1.06
Rogers City	USA	45.4000	-83.8333	1.04
Sag Hbr.	USA	41.0167	-72.3000	0.89
Salem(MA USA)	USA	42.5167	-70.8833	0.74
Salisbury(MD USA)	USA	38.3500	-75.5833	0.67
San Clemente	USA	33.4333	-117.6000	0.98
San Pedro(CA USA)	USA	33.7167	-118.2500	1.13
Sandwich(USA)	USA	41.7667	-70.4833	1.04
Santa Barbara	USA	34.4000	-119.6833	0.87
Seattle	USA	47.6333	-122.3333	0.90
Sesuit Hbr.	USA	41.7500	-70.1500	1.17
Sheboygan	USA	43.7500	-87.7000	1.02
Silver Bay	USA	47.2833	-91.2667	0.59
Slidell	USA	30.2833	-89.8167	1.28
South Bristol	USA	43.8500	-69.5500	1.03
Sparrow's Point	USA	39.20	-76.47	0.53
Stamford	USA	41.0167	-73.5333	0.72
Stoneport	USA	45.2833	-83.4333	1.04
Sulphur	USA	30.2167	-93.4000	1.25
Superior	USA	46.7167	-92.0833	0.93
Tacoma	USA	47.2500	-122.4167	0.98
Taconite Hbr.	USA	47.5000	-90.9167	0.60
Theodore	USA	30.5333	-88.1833	1.20
Two Harbors	USA	47.0167	-91.6667	0.68
Ventura	USA	34.2667	-119.3000	0.93
Virginia Beach	USA	36.8500	-75.9500	0.62

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Whitefish Point	USA	46.7500	-84.9500	0.85
Wildwood	USA	38.9667	-74.8167	0.67
Wilmington(CA USA)	USA	33.7667	-118.2667	1.22
Wilmington(NC USA)	USA	34.2333	-77.9500	0.77
Woods Hole	USA	41.5167	-70.6667	0.67
Yorktown	USA	37.2333	-76.4000	0.95
Bird Is.	ZAF	-33.8167	26.2833	1.25
Mossel Bay	ZAF	-34.1833	22.1667	1.16
Ngqura	ZAF	-33.7833	25.6833	1.22
Port Elizabeth	ZAF	-33.9667	25.6333	1.21
Port Nolloth	ZAF	-29.2500	16.8667	1.25
Simonstown	ZAF	-34.1833	18.4333	1.10

*Appendix C. List of global ports that have highest environmental similarity to Port-Cartier. NIS originating from these ports have the highest potential for survival if introduced at Port-Cartier.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
San Julian	ARG	-49.2500	-67.6667	1.11
Punta Loyola	ARG	-51.6000	-69.0167	1.13
Santa Cruz(ARG)	ARG	-50.1333	-68.3833	0.68
Punta Quilla	ARG	-50.1178	-68.4125	0.68
Rio Gallegos	ARG	-51.6169	-69.2211	1.27
Comodoro Rivadavia	ARG	-45.8569	-67.4822	0.23
Caleta Paula	ARG	-46.4703	-67.4997	0.24
Caleta Olivia	ARG	-46.4333	-67.5167	0.24
Puerto Deseado	ARG	-47.7503	-65.8942	0.46
Camarones	ARG	-44.4500	-65.7000	0.80
Caleta Cordova	ARG	-45.7167	-67.3500	0.81
Mar del Plata	ARG	-38.0331	-57.5447	0.81
Necochea	ARG	-38.5753	-58.7214	0.82
Campana	ARG	-34.1567	-58.9664	1.07
Zarate	ARG	-34.0911	-59.0206	1.07
Atucha	ARG	-33.9569	-59.2511	1.08
Lima(ARG)	ARG	-33.9767	-59.1872	1.08
Puerto Madryn	ARG	-42.7386	-65.0472	1.14
Escobar	ARG	-34.3500	-58.7667	1.16
San Fernando(ARG)	ARG	-34.4500	-58.5333	1.17
Tigre	ARG	-34.4333	-58.5500	1.17
Buenos Aires	ARG	-34.5903	-58.3775	1.22
Punta Colorada	ARG	-41.7000	-65.0333	1.29
St. Paul Is.(ATF)	ATF	-38.7167	77.5167	0.55
Amsterdam Is.	ATF	-37.8500	77.5333	0.64
Ulverstone	AUS	-41.2333	146.1667	0.29
Port Latta	AUS	-40.8536	145.3872	0.35
Burnie	AUS	-41.0575	145.9050	0.41
Triabunna	AUS	-42.4500	147.9333	1.12
Macquarie Hbr.	AUS	-42.1667	145.3333	1.21
Devonport(AUS)	AUS	-41.1758	146.3511	0.44
Stanley(AUS)	AUS	-40.7667	145.3000	0.49

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bridport(AUS)	AUS	-40.9833	147.3667	0.54
Grassy	AUS	-40.0667	144.1500	0.52
King Is.	AUS	-39.8333	144.0000	0.63
Port Welshpool	AUS	-38.7000	146.4500	1.16
Barry Beach	AUS	-38.7167	146.3833	1.16
Portland(AUS)	AUS	-38.3506	141.6058	0.80
Eden	AUS	-37.0672	149.9064	0.92
Ballast Head	AUS	-35.7667	137.8000	0.95
Rapid Bay	AUS	-35.5167	138.1833	1.01
Edithburgh	AUS	-35.0833	137.7500	1.04
Port Stanvac	AUS	-35.1167	138.4667	1.06
Port Giles	AUS	-35.0225	137.7603	1.06
Port Vincent	AUS	-34.9500	137.8667	1.06
Klein Point	AUS	-34.9172	137.7928	1.06
Albany(AUS)	AUS	-35.0278	117.8956	1.13
Zeebrugge	BEL	51.3231	3.2158	0.52
Ostend	BEL	51.2297	2.9225	0.42
Nieuwpoort	BEL	51.1336	2.7483	0.51
Zandvoorde	BEL	51.2167	2.9667	0.51
Wielingen	BEL	51.3833	3.3833	0.58
Seven Islands (Sept- Iles)	CAN	50.1000	-66.3833	0.70
Caraquet	CAN	47.8000	-65.0167	1.28
Margaretsville	CAN	45.0500	-65.0667	1.17
Riverport	CAN	44.2833	-64.3333	1.16
Lunenburg	CAN	44.3667	-64.3000	1.16
La Have	CAN	44.2833	-64.3500	1.16
Bridgewater(CAN)	CAN	44.3667	-64.5000	1.16
New Hbr.	CAN	44.4667	-64.0833	1.14
Burgeo	CAN	47.6000	-57.6167	1.21
Port aux Basques	CAN	47.5667	-59.1167	1.23
Clarks Hbr.	CAN	43.4167	-65.6333	1.07
Come by Chance	CAN	47.8000	-54.0167	1.21
Whiffen Head	CAN	47.7667	-54.0167	1.21
Shelburne	CAN	43.6667	-65.3167	1.01
Stephenville	CAN	48.5167	-58.5333	1.28
Glace Bay	CAN	46.2000	-59.9500	1.25
Harbour Breton	CAN	47.4833	-55.8000	1.15
Bull Arm	CAN	47.7667	-53.8000	1.12
St. George's Hbr.(CAN)	CAN	48.4500	-58.4833	1.25
Turf Point	CAN	48.4333	-58.4667	1.25
Canso Hbr.	CAN	45.3333	-61.0000	1.19
Bonaventure	CAN	48.2833	-53.4333	1.17
Grand Bank	CAN	47.1000	-55.7500	1.10
Carbonear	CAN	47.7333	-53.2333	1.13
Pugwash	CAN	45.8667	-63.6667	1.23
Belle Hbr.	CAN	47.6667	-55.3333	1.17
Belleoram	CAN	47.5167	-55.4167	1.17
Port Edward	CAN	54.2333	-130.3000	0.87
Prince Rupert	CAN	54.3167	-130.3667	0.83
Holyrood	CAN	47.4000	-53.1333	1.10
Carmanville	CAN	49.4000	-54.2833	1.24

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Liscomb	CAN	45.0000	-62.0000	1.15
Port Simpson	CAN	54.5833	-130.4167	1.00
Tasu Bay	CAN	52.7667	-132.0500	0.67
Port Mellon	CAN	49.5167	-123.4833	1.15
Meteghan	CAN	44.2000	-66.1667	0.99
Sheet Hbr.	CAN	44.8500	-62.4500	1.16
Beaver Hbr.	CAN	44.8667	-62.4000	1.16
Cole Hbr.	CAN	45.2500	-61.2833	1.18
Masset	CAN	54.0000	-132.1500	0.87
Saint John(CAN)	CAN	45.2667	-66.0667	1.18
Yarmouth(CAN)	CAN	43.8333	-66.1167	1.10
Woodfibre	CAN	49.6667	-123.2500	1.12
Parrsboro	CAN	45.3833	-64.3333	1.25
Ship Harbour	CAN	44.7500	-62.7500	1.15
Tiverton(CAN)	CAN	44.4000	-66.2167	1.04
Cheticamp	CAN	46.6333	-61.0167	1.29
Aulds Cove	CAN	45.6500	-61.4333	1.26
Port Hastings	CAN	45.6500	-61.4000	1.26
Port Hawkesbury	CAN	45.6167	-61.3500	1.26
Point Tupper	CAN	45.6000	-61.3667	1.26
Mulgrave	CAN	45.5833	-61.3833	1.26
Plumper Sound	CAN	48.7667	-123.2000	0.82
Jedway	CAN	52.3000	-131.2167	0.57
Eastern Passage	CAN	44.6000	-63.4833	1.24
Sidney	CAN	48.6500	-123.3833	0.83
Constance Bank	CAN	48.3500	-123.3667	0.84
Esquimalt	CAN	48.4333	-123.4333	0.84
Victoria(CAN)	CAN	48.4167	-123.3833	0.84
Bamberton	CAN	48.5833	-123.5167	0.88
Port McNeill	CAN	50.6000	-127.0833	0.96
Englewood	CAN	50.5333	-126.8667	1.06
Beaver Cove	CAN	50.5333	-126.8500	1.06
Port Hardy	CAN	50.7167	-127.4833	0.87
Walton(CAN)	CAN	45.2333	-64.0167	1.25
Comox	CAN	49.6667	-124.9167	0.69
Union Bay	CAN	49.5833	-124.8667	0.69
Campbell River	CAN	50.0333	-125.2333	0.70
Chemainus	CAN	48.9167	-123.7000	0.79
Crofton	CAN	48.8667	-123.6333	0.79
Cowichan Bay	CAN	48.7500	-123.6000	0.79
Ladysmith	CAN	48.9833	-123.7833	0.74
Harmac	CAN	49.1333	-123.8500	0.77
Nanaimo	CAN	49.1667	-123.9333	0.77
Ucluelet	CAN	48.9167	-125.5667	0.64
Tofino	CAN	49.1333	-125.9000	0.55
Duncan Bay	CAN	50.0833	-125.2833	0.85
Powell River	CAN	49.8667	-124.5500	0.90
Roberts Bank	CAN	49.0167	-123.1333	0.85
Richmond(CAN)	CAN	49.1500	-123.1667	0.90
Sechelt	CAN	49.4667	-123.7500	0.96
Fraser River Port	CAN	49.2000	-122.9167	0.97

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Vancouver(CAN)	CAN	49.2833	-123.1167	0.95
Cabo Negro	CHL	-52.9500	-70.7833	0.86
Puerto Natales	CHL	-51.7167	-72.5167	0.83
Chacabuco	CHL	-45.4667	-72.8333	0.91
Caleta Clarendia	CHL	-52.9000	-70.1500	0.80
Punta Delgada	CHL	-52.4500	-69.5333	0.74
Porvenir(CHL)	CHL	-53.2833	-70.3667	0.82
Puerto Aisen	CHL	-45.3833	-72.6833	0.78
Gregorio	CHL	-52.6333	-70.1833	0.93
Puerto Cisnes	CHL	-44.7333	-72.7000	0.69
Puerto Percy	CHL	-52.9167	-70.2833	0.85
Guarello	CHL	-50.3500	-75.3333	0.87
Puerto Aguirre	CHL	-45.1667	-73.5167	0.59
Chaiten	CHL	-42.9167	-72.7167	0.41
Puerto Montt	CHL	-41.4667	-72.9500	0.41
Puerto Quellon	CHL	-43.1500	-73.6167	0.78
Puerto Melinka	CHL	-43.9000	-73.7333	0.80
Castro	CHL	-42.4833	-73.7667	0.33
Chonchi	CHL	-42.6167	-73.7833	0.31
Ancud	CHL	-41.8667	-73.8333	0.36
Calbuco	CHL	-41.7500	-73.1500	0.52
Puerto Quemchi	CHL	-42.1500	-73.4833	0.52
San Vicente	CHL	-36.7333	-73.1500	0.54
Talcahuano	CHL	-36.6833	-73.1000	0.54
Matanzas(CHL)	CHL	-33.9833	-71.9000	0.40
Penco	CHL	-36.7167	-73.0000	0.44
Lirquen	CHL	-36.7167	-72.9833	0.48
Coquimbo	CHL	-29.9500	-71.3500	0.45
Guayacan	CHL	-29.9667	-71.3667	0.45
Valparaiso	CHL	-33.0167	-71.6333	0.47
Las Salinas	CHL	-33.0167	-71.5667	0.47
Lota	CHL	-37.1000	-73.1667	0.55
Coronel	CHL	-37.0333	-73.1667	0.55
Puerto Papudo	CHL	-32.5000	-71.4500	0.71
Puerto Ventanas	CHL	-32.7500	-71.5000	0.72
Quintero	CHL	-32.7667	-71.5000	0.72
San Antonio(CHL)	CHL	-33.6000	-71.6167	0.85
Los Vilos	CHL	-31.9167	-71.5000	0.81
Cruz Grande	CHL	-29.4500	-71.3333	0.94
Huasco	CHL	-28.4500	-71.2333	1.10
Caleta Michilla	CHL	-22.7333	-70.2667	1.11
Caleta Barquito	CHL	-26.3500	-70.6500	1.16
Chanaral	CHL	-26.3500	-70.6333	1.16
Iquique	CHL	-20.2000	-70.1667	1.16
Caleta Patillos	CHL	-20.7500	-70.2000	1.16
Caleta Patache	CHL	-20.8000	-70.2000	1.16
Caldera(CHL)	CHL	-27.0667	-70.8833	1.19
Tocopilla	CHL	-22.0833	-70.2333	1.19
Taltal	CHL	-25.4000	-70.4833	1.23
Caleta Coloso	CHL	-23.7500	-70.4667	1.23
Antofagasta	CHL	-23.6333	-70.4333	1.23

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Huludao	CHN	40.7167	120.9833	1.25
List	DEU	55.0167	8.4333	0.87
Hornum	DEU	54.7500	8.3000	0.89
Amrum Is.	DEU	54.6333	8.3500	0.89
Horumersiel	DEU	53.6667	8.0167	0.86
Wilhelmshaven	DEU	53.5167	8.1500	0.86
Wyk	DEU	54.7000	8.5833	0.94
Helgoland	DEU	54.1500	7.8833	0.81
Wangerooge	DEU	53.7833	7.9000	0.83
Dagebull	DEU	54.7333	8.7333	0.84
Borkum	DEU	53.5833	6.6667	0.71
Baltrum	DEU	53.7333	7.4000	0.75
Otterndorf	DEU	53.8167	8.9000	1.07
Langeoog	DEU	53.7500	7.5333	0.79
Holmer Siel	DEU	54.5333	8.8667	0.87
Husum(DEU)	DEU	54.4833	9.0500	0.87
Friedrichstadt	DEU	54.3833	9.0833	0.90
Nordstrand	DEU	54.4833	8.9167	0.87
Tonning	DEU	54.3167	8.9500	0.90
Busum	DEU	54.1333	8.8667	0.90
Fischerhutte	DEU	54.1500	9.3667	1.02
Rendsburg	DEU	54.3167	9.6667	1.01
Schacht-Audorf	DEU	54.3000	9.7167	1.01
Hochdonn	DEU	54.0167	9.3000	1.01
Norddeich	DEU	53.6333	7.1667	0.70
Itzehoe	DEU	53.9333	9.5167	1.02
Bremerhaven	DEU	53.5500	8.5833	0.89
Wesermunde	DEU	53.5333	8.5833	0.89
Blexen	DEU	53.5333	8.5333	0.89
Einswarden	DEU	53.5167	8.5167	0.89
Burg	DEU	53.9833	9.2833	1.01
Ostermoor	DEU	53.9167	9.1833	1.01
Wewelsfleth	DEU	53.8500	9.4000	1.01
Beidenfleth	DEU	53.8667	9.4333	1.01
Brokdorf	DEU	53.8667	9.3333	1.01
Brunsbüttel	DEU	53.9000	9.1333	1.01
Neuenfelde	DEU	53.5000	9.8167	1.03
Harlesiel	DEU	53.6333	7.7500	0.79
Abbenfleth	DEU	53.6833	9.5000	1.02
Ruthenstrom	DEU	53.7333	9.4000	1.02
Krautsand	DEU	53.7667	9.3833	1.02
Elmshorn	DEU	53.7500	9.6500	1.02
Gluckstadt	DEU	53.7833	9.4167	1.02
Nordenham	DEU	53.4833	8.4833	0.89
Stade	DEU	53.6000	9.4833	1.02
Hemmoor	DEU	53.7000	9.1333	1.01
Schwarzenhütten	DEU	53.7000	9.1667	1.01
Neuhaus	DEU	53.8000	9.0333	1.01
Freiburg	DEU	53.8167	9.3000	1.01
Wischhafen	DEU	53.7833	9.3333	1.01
Hamburg	DEU	53.5500	9.9667	1.03

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Schulau	DEU	53.5667	9.7000	1.03
Ganspe	DEU	53.2000	8.5500	0.90
Blumenthal	DEU	53.1833	8.5667	0.90
Farge	DEU	53.2000	8.5167	0.90
Butzfleth	DEU	53.6500	9.5167	1.02
Stadersand	DEU	53.6167	9.5333	1.02
Utersen	DEU	53.6667	9.6500	1.02
Bensersiel	DEU	53.6833	7.5833	0.78
Juist	DEU	53.6833	7.0000	0.74
Norderney	DEU	53.7000	7.1667	0.74
Brake	DEU	53.3333	8.4833	0.89
Elsfleth	DEU	53.2333	8.4667	0.89
Bardenfleth	DEU	53.1500	8.5500	0.90
Lemwerder	DEU	53.1667	8.6000	0.90
Bremen	DEU	53.0833	8.7833	0.90
Oslebshausen	DEU	53.1333	8.7333	0.90
Oldenburg	DEU	53.1500	8.2333	0.89
Cuxhaven	DEU	53.8667	8.7000	1.01
Emden	DEU	53.3500	7.1833	1.09
Ditzum	DEU	53.3167	7.2667	1.23
Hanstholm	DNK	57.1167	8.5833	0.75
Skagen	DNK	57.7167	10.6000	0.95
Strandby	DNK	57.4833	10.5167	0.96
Frederikshavn	DNK	57.4333	10.5500	0.95
Saeby	DNK	57.3333	10.5167	0.95
Understed	DNK	57.3833	10.5000	0.95
Asa	DNK	57.1500	10.4167	0.92
Asaa	DNK	57.1333	10.4000	0.92
Laeso	DNK	57.2167	10.7000	0.97
Hirtshals	DNK	57.6000	9.9667	0.70
Thyboron	DNK	56.7000	8.2167	0.67
Fano Is.	DNK	55.4167	8.4167	0.85
Nordby	DNK	55.4500	8.4000	0.85
Esbjerg	DNK	55.4667	8.4333	0.85
Aalborg	DNK	57.0500	9.9167	0.94
Norresundby	DNK	57.0667	9.9167	0.94
Havneby	DNK	55.1000	8.5667	0.90
Hals	DNK	56.9833	10.3167	1.17
Ribe	DNK	55.3167	8.7667	0.80
Lemvig	DNK	56.5500	8.3000	1.10
Ringkobing	DNK	56.0833	8.2333	0.90
Mariager	DNK	56.6500	9.9833	1.22
Randers	DNK	56.4667	10.0500	1.22
Hobro	DNK	56.6333	9.8000	1.22
Hadsund	DNK	56.7167	10.1167	1.22
Kongsdal	DNK	56.6833	10.0667	1.22
Ortigueira	ESP	43.6833	-7.8333	0.93
Bilbao	ESP	43.3106	-3.0286	1.04
Corme	ESP	43.2667	-8.9667	0.53
Cedeira	ESP	43.6500	-8.0667	0.56
Puente Ceso	ESP	43.2500	-8.9000	1.03

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Cudillero	ESP	43.5500	-6.1500	0.71
San Esteban de Pravia	ESP	43.5667	-6.0833	0.71
Bermeo	ESP	43.4167	-2.7167	0.79
Ribadesella	ESP	43.4667	-5.0667	0.81
Castro Urdiales	ESP	43.4000	-3.2333	0.80
Cillero	ESP	43.6833	-7.6000	0.88
Carino	ESP	43.7333	-7.8500	0.65
Pasajes	ESP	43.3333	-1.9333	0.86
San Sebastian(ESP)	ESP	43.3167	-1.9833	0.86
Burela	ESP	43.6500	-7.3333	0.70
San Ciprian	ESP	43.7000	-7.4500	0.70
Santona	ESP	43.4667	-3.4667	0.84
Vivero	ESP	43.6667	-7.6000	1.08
Ribadeo	ESP	43.5333	-7.0333	0.73
Camarinas	ESP	43.1167	-9.1833	0.95
Tapia de Casariego	ESP	43.5667	-6.9333	0.77
Castropol	ESP	43.5333	-7.0167	0.77
Puerto de Vega	ESP	43.5667	-6.6333	0.79
Navia	ESP	43.5500	-6.7167	0.79
Corunna	ESP	43.3833	-8.3667	0.85
Santa Eugenia de Riveira	ESP	42.5500	-8.9833	1.13
Aviles	ESP	43.5833	-5.9333	0.83
Gijon	ESP	43.5500	-5.6667	0.82
Villaviciosa	ESP	43.5333	-5.3833	0.81
Muros	ESP	42.7500	-9.0167	1.16
Santander	ESP	43.4667	-3.7667	0.90
Sada	ESP	43.3667	-8.2500	1.15
Caraminal	ESP	42.6000	-8.9333	1.21
Corcubion	ESP	42.9500	-9.1833	1.16
Cee	ESP	42.9500	-9.1667	1.16
Lage	ESP	43.2167	-9.0000	0.88
Ferrol	ESP	43.4667	-8.2667	1.23
Astillero	ESP	43.4000	-3.8167	1.28
Guetaria	ESP	43.3000	-2.2000	0.99
Zumaya	ESP	43.3000	-2.2500	0.99
Ondarroa	ESP	43.3167	-2.4167	0.98
Lequeitio	ESP	43.3667	-2.4833	0.98
Algeciras	ESP	36.1167	-5.4333	1.18
Ceuta	ESP	35.8833	-5.3167	1.20
Mare Hbr.	FLK	-51.9167	-58.4667	1.10
Stanley Harbour	FLK	-51.6833	-57.8333	1.24
Gravelines	FRA	50.9833	2.1333	0.37
Dunkirk	FRA	51.0500	2.3500	0.38
Mardyck	FRA	51.0000	2.2333	0.38
Boulogne	FRA	50.7333	1.6167	0.25
Ouistreham	FRA	49.2833	-0.2500	0.21
Antifer	FRA	49.6667	0.1667	0.18
Le Havre	FRA	49.4833	0.1167	0.18
St. Valery en Caux	FRA	49.8667	0.7167	0.16
Fecamp	FRA	49.7667	0.3667	0.16
Courseulles sur Mer	FRA	49.3333	-0.4500	0.22



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Saint Quay Portrieux	FRA	48.6500	-2.8333	0.11
Dahouet	FRA	48.5833	-2.5667	0.09
Le Legue	FRA	48.5333	-2.7167	0.09
Calais	FRA	50.9667	1.8500	0.50
Paimpol	FRA	48.7833	-3.0500	0.08
Dielette	FRA	49.5500	-1.8500	0.05
Port Barrier	FRA	48.6333	-2.4167	0.10
Erquy	FRA	48.6333	-2.4667	0.10
Barfleur	FRA	49.6667	-1.2500	0.07
Le Treport	FRA	50.0667	1.3667	0.49
Carteret	FRA	49.3667	-1.8000	0.05
Cancale	FRA	48.6667	-1.8500	0.17
St. Malo	FRA	48.6494	-2.0253	0.13
Le Guildo	FRA	48.6333	-2.2333	0.13
Dieppe	FRA	49.9333	1.0833	0.48
Granville	FRA	48.8333	-1.6000	0.12
Cherbourg	FRA	49.6411	-1.6142	0.32
Honfleur	FRA	49.4167	0.2333	0.48
Deauville	FRA	49.3500	0.0667	0.48
Pornic	FRA	47.1167	-2.1167	0.33
Piriac	FRA	47.3833	-2.5500	0.30
Treguier	FRA	48.7833	-3.2333	1.10
Etaples	FRA	50.5167	1.6333	1.23
Port Joinville	FRA	46.7333	-2.3500	0.33
Audierne	FRA	48.0167	-4.5333	0.18
Roscoff	FRA	48.7167	-3.9833	0.41
Morlaix	FRA	48.6333	-3.8833	0.35
Lannion	FRA	48.7333	-3.4500	1.22
Le Palais	FRA	47.3500	-3.1667	0.23
Paluden	FRA	48.5833	-4.5167	0.68
Brest	FRA	48.3833	-4.4833	0.91
Concarneau	FRA	47.8667	-3.9167	0.38
Douarnenez	FRA	48.1000	-4.3333	0.36
Camaret	FRA	48.2833	-4.6000	0.37
Morgat	FRA	48.2167	-4.5000	0.37
Loctudy	FRA	47.8333	-4.1667	0.44
La Trinite sur Mer	FRA	47.5833	-3.0333	0.55
Benodet	FRA	47.8833	-4.1167	1.07
Quimper	FRA	47.9667	-4.1167	1.14
Saint Brevin	FRA	47.2500	-2.1500	0.70
Quiberon	FRA	47.5000	-3.1167	0.58
St. Nazaire	FRA	47.2667	-2.2000	0.68
Keroman	FRA	47.7333	-3.3667	1.14
Sables d'Olonne	FRA	46.5000	-1.8000	0.74
La Rochelle	FRA	46.1500	-1.1500	0.88
Marennnes	FRA	45.8167	-1.1000	0.71
La Pallice	FRA	46.1667	-1.2333	0.92
Arcachon	FRA	44.6667	-1.1667	1.16
La Teste	FRA	44.6167	-1.1500	1.16
St. Jean de Luz	FRA	43.4000	-1.6667	0.98
Biarritz	FRA	43.5000	-1.5667	1.06

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Sanary-sur-Mer	FRA	43.1167	5.8000	1.25
Port Vendres	FRA	42.5167	3.1167	0.95
Collioure	FRA	42.5333	3.0833	0.95
Bastia	FRA	42.7000	9.4500	1.17
La Ciotat	FRA	43.1667	5.6000	1.24
Lavera	FRA	43.3833	5.0000	1.00
Port de Bouc	FRA	43.4000	4.9833	1.00
Martigues	FRA	43.4000	5.0500	1.00
Le Lavandou	FRA	43.1333	6.3667	1.25
Ajaccio	FRA	41.9167	8.7333	1.27
Streymnes	FRO	62.1833	-7.0167	1.12
Hvalvik	FRO	62.1833	-7.0000	1.12
Skalafjordur	FRO	62.2000	-6.8500	1.11
Nordskali	FRO	62.2000	-6.9833	1.11
Kollafjordur	FRO	62.1167	-6.9000	1.05
Hosvik	FRO	62.1500	-6.9333	1.05
Sandvagur	FRO	62.0500	-7.1333	1.02
Midvagur	FRO	62.0333	-7.1833	0.98
Vestmanna	FRO	62.1500	-7.1667	0.98
Dalur	FRO	61.7667	-6.6667	1.20
Skopun	FRO	61.9000	-6.8667	1.20
Klaksvik	FRO	62.2333	-6.5833	1.14
Tvoroyri	FRO	61.5500	-6.8000	1.17
Hvalba	FRO	61.6000	-6.9500	1.17
Torshavn	FRO	62.0000	-6.7500	1.14
Toftir	FRO	62.0833	-6.7167	1.14
Strendur	FRO	62.1167	-6.7500	1.14
Runavik	FRO	62.1000	-6.7167	1.14
Gota(FRO)	FRO	62.1833	-6.7000	1.14
Skali	FRO	62.1500	-6.7667	1.14
Saltangara	FRO	62.1167	-6.7000	1.14
Fuglafjordur	FRO	62.2500	-6.8167	1.13
Vagur	FRO	61.4667	-6.8000	1.12
Sorvagur	FRO	62.0833	-7.4167	1.13
Methil	GBR	56.1833	-3.0000	0.85
Largo Bay	GBR	56.2167	-2.9333	0.85
Aberlady Bay	GBR	56.0167	-2.8500	0.85
Tayport	GBR	56.4500	-2.8833	0.85
Dundee	GBR	56.4667	-2.9667	0.85
St. Monans	GBR	56.2000	-2.7667	0.85
Montrose	GBR	56.7000	-2.4667	0.86
Glensanda	GBR	56.5667	-5.5333	0.67
Eyemouth	GBR	55.8667	-2.0833	0.84
Berwick-upon-Tweed	GBR	55.7667	-2.0000	0.72
Loch Aline	GBR	56.5333	-5.7833	0.61
Loch Aline Pier	GBR	56.5333	-5.7833	0.61
Sullom Voe	GBR	60.4500	-1.3333	0.70
Peterhead	GBR	57.5000	-1.7833	0.83
Sandhaven	GBR	57.6833	-2.0167	0.83
Fraserburgh	GBR	57.6833	-2.0000	0.83
Paull	GBR	53.7167	-0.2167	0.56

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Killingholme	GBR	53.6667	-0.2333	0.56
Grimsby	GBR	53.5833	-0.0667	0.56
South Killingholme	GBR	53.6333	-0.2000	0.56
North Killingholme	GBR	53.6500	-0.2333	0.56
Immingham	GBR	53.6333	-0.1833	0.56
North Sunderland	GBR	55.5833	-1.6500	0.66
Warkworth	GBR	55.3333	-1.5667	0.67
Alnwick	GBR	55.4000	-1.7000	0.67
Kyleakin	GBR	57.2667	-5.7333	0.58
Kyle of Lochalsh	GBR	57.2833	-5.7333	0.58
Macduff	GBR	57.6667	-2.5000	0.55
Banff	GBR	57.6667	-2.5167	0.55
Thurso	GBR	58.5833	-3.5167	0.57
Scrabster	GBR	58.6167	-3.5333	0.57
Salt End	GBR	53.7333	-0.2333	0.55
South Shields	GBR	55.0000	-1.4333	0.66
Tyne	GBR	55.0000	-1.4333	0.66
North Shields	GBR	55.0167	-1.4333	0.66
Seaton Sluice	GBR	55.0833	-1.4667	0.66
Blyth	GBR	55.1167	-1.4833	0.66
Sunderland	GBR	54.9167	-1.3667	0.67
Seaham	GBR	54.8333	-1.3167	0.67
Wick	GBR	58.4333	-3.0833	0.83
Portnockie	GBR	57.7000	-2.8667	0.55
Findochty	GBR	57.7000	-2.9000	0.55
Buckie	GBR	57.6833	-2.9500	0.55
Nigg	GBR	57.7000	1.2833	0.60
Orbost	GBR	57.3833	-6.5667	0.56
Stromness	GBR	58.9667	-3.3000	0.79
Redcar	GBR	54.6167	-1.0667	0.66
Hartlepool	GBR	54.7000	-1.2000	0.66
Cromarty	GBR	57.6833	-4.0333	0.53
Barrow-in-Furness	GBR	54.1000	-3.2167	0.53
Bridlington	GBR	54.0833	-0.1833	0.53
Ardrishaig	GBR	56.0000	-5.4333	0.52
Aberdeen(GBR)	GBR	57.1500	-2.0667	0.52
Maryport	GBR	54.7167	-3.5000	0.52
Llanddulas	GBR	53.3000	-3.6500	0.52
Barcaldine	GBR	56.5167	-5.4000	0.51
Tobermory(GBR)	GBR	56.6167	-6.0500	0.52
Nairn	GBR	57.5833	-3.8667	0.51
Kirkcaldy	GBR	56.1167	-3.1500	0.50
Inchkeith	GBR	56.0333	-3.1500	0.50
Scarborough(GBR)	GBR	54.2833	-0.3833	0.52
Leith	GBR	55.9833	-3.1667	0.51
St. Margaret's Hope	GBR	58.8333	-2.9500	0.81
Burray	GBR	58.8500	-2.9000	0.81
Whitby	GBR	54.4833	-0.6167	0.51
Portavadie	GBR	55.8667	-5.3000	0.49
Bunnahabhainn Bay	GBR	55.8833	-6.1167	0.51
Port Askaig	GBR	55.8500	-6.1000	0.51

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Jura Is.	GBR	55.8500	-6.0833	0.51
Oban	GBR	56.4167	-5.4833	0.49
Lyness	GBR	58.8333	-3.1833	0.80
Ardersier	GBR	57.5667	-4.0333	0.49
Brodick	GBR	55.5667	-5.1000	0.65
Lamlash	GBR	55.5333	-5.0667	0.65
Burghead	GBR	57.7000	-3.5000	0.50
Creetown	GBR	54.9000	-4.3667	0.49
Wigtown	GBR	54.8667	-4.4333	0.49
Dunvegan	GBR	57.4500	-6.5833	0.96
Isle of Whithorn	GBR	54.7000	-4.3667	0.56
Ullapool	GBR	57.9000	-5.1667	1.16
Mallaig	GBR	57.0000	-5.8333	0.50
Broadford	GBR	57.2333	-5.9000	0.82
Conwy	GBR	53.3000	-3.8500	0.49
Girvan	GBR	55.2500	-4.8667	0.62
Penmaenmawr	GBR	53.2667	-3.9500	0.49
Cockenzie	GBR	55.9667	-2.9500	0.49
Kylesku	GBR	58.2500	-5.0167	1.13
Stronsay	GBR	59.1167	-2.6167	0.81
Sanday	GBR	59.2167	-2.5000	0.81
Kirkwall	GBR	59.0000	-2.9833	0.80
Granton	GBR	55.9833	-3.2167	0.88
Campbeltown	GBR	55.4167	-5.5833	0.62
Shapinsay	GBR	59.0500	-2.8500	0.80
Millom	GBR	54.1833	-3.2667	0.48
Lossiemouth	GBR	57.7167	-3.2833	0.46
Arbroath	GBR	56.5500	-2.5833	0.46
Ayr	GBR	55.4667	-4.6333	0.46
Ballylumford	GBR	54.8333	-5.7833	0.61
Larne	GBR	54.8500	-5.7833	0.61
Port Penrhyn	GBR	53.2333	-4.1000	0.48
Beaumaris	GBR	53.2667	-4.0833	0.48
Portpatrick	GBR	54.8500	-5.1167	0.60
Stranraer	GBR	54.9167	-5.0333	0.60
Mull of Galloway	GBR	54.6333	-4.8500	0.58
Burntisland	GBR	56.0500	-3.2333	0.87
Magheramorne	GBR	54.8167	-5.7667	0.61
Kinlochbervie	GBR	58.4500	-5.0333	0.70
Sandwick	GBR	60.0000	-1.2333	0.77
Lerwick	GBR	60.1500	-1.1333	0.77
Scalloway	GBR	60.1333	-1.2667	0.77
Bressay	GBR	60.1333	-1.0833	0.77
Kilroot	GBR	54.7167	-5.7500	0.60
Bangor(GBR)	GBR	54.6667	-5.6667	0.60
Port Ellen	GBR	55.6167	-6.2167	0.61
Craignure	GBR	56.4667	-5.7000	0.63
Cemaes Bay	GBR	53.4167	-4.4500	0.47
Point Lynas	GBR	53.4167	-4.2833	0.47
Cairnryan	GBR	54.9667	-5.0167	0.41
Holyhead	GBR	53.3167	-4.6167	0.48

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Colonsay	GBR	56.0500	-6.1833	0.61
Dundrum	GBR	54.2667	-5.8500	0.41
Portavogie	GBR	54.4500	-5.4333	0.59
Bruichladdich	GBR	55.7667	-6.3667	0.60
Vidlin Voe	GBR	60.3833	-1.1333	0.81
Cullivoe	GBR	60.7000	-1.0000	0.76
Workington	GBR	54.6500	-3.5667	0.42
Whitehaven	GBR	54.5500	-3.5833	0.42
Mostyn	GBR	53.3167	-3.2333	0.44
Islay Is.	GBR	55.8000	-6.2667	0.40
Mid Yell Voe	GBR	60.6000	-1.0667	0.77
Tofts Voe	GBR	60.5000	-1.1833	0.77
Kilkeel	GBR	54.0667	-6.0000	0.58
Lochmaddy	GBR	57.6000	-7.1333	0.61
Tiree Is.	GBR	56.5167	-6.8000	0.58
Heysham	GBR	54.0333	-2.9167	0.46
Tenby	GBR	51.7000	-4.7167	0.43
Loch Carnan	GBR	57.3333	-7.2500	0.60
Baltasound	GBR	60.7500	-0.8333	0.76
Ballantrae	GBR	55.1000	-5.0000	0.38
Ballycastle	GBR	55.2167	-6.2333	0.61
Fishguard	GBR	52.0167	-4.9833	0.42
Stornoway	GBR	58.2000	-6.3833	0.61
Lochinver	GBR	58.1500	-5.2500	1.19
Kishorn	GBR	57.3833	-5.6000	1.26
Braefoot Bay	GBR	56.0333	-3.3000	1.04
Garlieston	GBR	54.8000	-4.3667	0.38
Portrush	GBR	55.2167	-6.6667	0.36
Silloth	GBR	54.8667	-3.4000	0.40
Annan	GBR	54.9833	-3.2667	0.41
Benbecula	GBR	57.4167	-7.3833	0.57
Irvine	GBR	55.6000	-4.6833	0.36
Ardrossan(GBR)	GBR	55.6333	-4.8167	0.36
Troon	GBR	55.5500	-4.6833	0.36
Porthmadog	GBR	52.9167	-4.1333	0.36
Lochboisdale	GBR	57.1500	-7.3000	0.56
Castlebay	GBR	56.9333	-7.4667	0.54
Caernarfon	GBR	53.1500	-4.2667	0.34
Carrickfergus	GBR	54.6500	-5.8833	0.79
Oulton Broad	GBR	52.4833	1.7333	0.37
Great Yarmouth	GBR	52.6000	1.7333	0.37
Portree	GBR	57.4000	-6.1833	1.21
Lowestoft	GBR	52.4667	1.7500	0.37
Aberdovey	GBR	52.5333	-4.0500	0.33
Snape Bridge	GBR	52.1500	1.5000	0.39
Sizewell	GBR	52.2167	1.6000	0.39
Hunstanton	GBR	52.9333	0.5000	0.50
Clacton	GBR	51.8000	1.1500	0.41
Brightlingsea	GBR	51.7833	1.0333	0.41
Felixstowe	GBR	51.9500	1.3167	0.39
Great Oakley	GBR	51.9000	1.2500	0.39

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Walton on the Naze	GBR	51.8500	1.2667	0.39
Harwich	GBR	51.9500	1.2833	0.39
Borth	GBR	52.4833	-4.0500	0.31
Aberystwyth	GBR	52.4000	-4.1000	0.31
Ramsgate	GBR	51.3333	1.4167	0.37
Richborough	GBR	51.3000	1.3500	0.37
Dover	GBR	51.1167	1.3333	0.36
Wells	GBR	52.9667	0.8500	0.43
Lundy Is.	GBR	51.1667	-4.6500	0.25
St. Kilda	GBR	57.8167	-8.5667	0.53
Strangford	GBR	54.3833	-5.6000	0.79
Warrenpoint	GBR	54.1000	-6.2500	1.17
Cromer	GBR	52.9333	1.3000	0.42
Poole	GBR	50.7167	-1.9833	0.23
Killyleagh	GBR	54.4000	-5.6500	0.85
Belfast	GBR	54.6000	-5.9333	1.08
Fleetwood	GBR	53.9333	-3.0000	0.42
Mistley	GBR	51.9500	1.0833	1.06
Watchet	GBR	51.1833	-3.3333	0.38
Rye	GBR	50.9333	0.7667	0.21
Faversham	GBR	51.3333	0.9000	0.44
Littlehampton	GBR	50.8000	-0.5333	0.38
Brighton(GBR)	GBR	50.8167	-0.1000	0.38
Shoreham	GBR	50.8333	-0.2500	0.38
Ilfracombe	GBR	51.2000	-4.1167	0.30
Portbury	GBR	51.5000	-2.7333	0.40
Portishead	GBR	51.4833	-2.7667	0.40
Walton Bay	GBR	51.4667	-2.8167	0.40
Avonmouth	GBR	51.5000	-2.7167	0.40
Llanelli	GBR	51.6667	-4.1667	0.31
Folkestone	GBR	51.0833	1.2000	0.44
Bridport(GBR)	GBR	50.7167	-2.7667	0.34
Rothesay	GBR	55.8333	-5.0500	1.28
Barry	GBR	51.4000	-3.2667	0.14
Casquets	GBR	49.7333	-2.3833	0.07
Lancaster	GBR	54.0000	-2.8500	1.17
Glasson Dock	GBR	54.0000	-2.8333	1.17
Christchurch	GBR	50.7333	-1.7500	0.38
Cantley	GBR	52.5667	1.5333	1.04
Guernsey	GBR	49.4500	-2.5333	0.07
St. Peter Port	GBR	49.4500	-2.5333	0.07
Newhaven	GBR	50.7833	0.0667	0.40
Milford Haven	GBR	51.7128	-5.0617	0.73
Hastings(GBR)	GBR	50.8500	0.5833	0.42
Herne Bay	GBR	51.3667	1.1167	0.50
Whitstable	GBR	51.3667	1.0333	0.50
Swansea	GBR	51.6167	-3.9333	0.36
Briton Ferry	GBR	51.6167	-3.8333	0.36
Leigh	GBR	51.5500	0.6500	0.50
Canvey Is.	GBR	51.5167	0.6333	0.50
Sark	GBR	49.4333	-2.3667	0.06

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Par	GBR	50.3500	-4.7000	0.24
Brixham	GBR	50.4000	-3.5000	0.08
Alderney	GBR	49.7167	-2.2000	0.05
Southend	GBR	51.5333	0.7167	0.49
Teignmouth	GBR	50.5500	-3.5000	0.33
Yarmouth(GBR)	GBR	50.7000	-1.5000	0.38
Lymington	GBR	50.7667	-1.5500	0.38
Jersey	GBR	49.1833	-2.1167	0.05
St. Helier	GBR	49.1833	-2.1167	0.05
Garston	GBR	53.3500	-2.9000	1.11
Weymouth	GBR	50.6167	-2.4500	0.33
Portland(GBR)	GBR	50.5667	-2.4333	0.33
Fowey	GBR	50.3333	-4.6333	0.27
Charlestown(England)	GBR	50.3333	-4.7500	0.27
Mevagissey	GBR	50.2667	-4.7833	0.27
Salcombe	GBR	50.2167	-3.7833	0.07
Mullion Cove	GBR	50.0167	-5.2667	0.20
Porthleven	GBR	50.0833	-5.3167	0.20
Fawley	GBR	50.8167	-1.3333	0.39
Ipswich	GBR	52.0500	1.1667	1.21
Padstow	GBR	50.5500	-4.9333	0.00
Torquay	GBR	50.4500	-3.5333	0.32
Dartmouth	GBR	50.3500	-3.5833	0.32
Pembroke	GBR	51.6928	-4.9506	1.02
Exmouth(GBR)	GBR	50.6167	-3.4167	0.34
Hull	GBR	53.7500	-0.3000	1.23
Plymouth	GBR	50.3667	-4.1833	0.30
Devonport(GBR)	GBR	50.3667	-4.1667	0.30
Bromborough	GBR	53.3500	-2.9833	1.24
Eastham	GBR	53.3500	-2.9667	1.24
Ellesmere Port	GBR	53.2833	-2.9000	1.20
Fingringhoe	GBR	51.8333	0.9667	1.11
Colchester	GBR	51.8833	0.9167	1.24
Truro	GBR	50.1667	-5.0333	0.23
Falmouth	GBR	50.1667	-5.0500	0.23
Dean Quarry	GBR	50.0333	-5.0833	0.23
Porthoustock Quarry	GBR	50.0500	-5.0667	0.23
St. Ives	GBR	50.2167	-5.4833	0.23
Hayle	GBR	50.1833	-5.4333	0.23
Cowes	GBR	50.7667	-1.3000	0.42
Hamble	GBR	50.8167	-1.3000	0.42
Fishbourne	GBR	50.7333	-1.2000	0.42
Newport(IOW)	GBR	50.7000	-1.2833	0.42
Burnham on Crouch	GBR	51.6167	0.8167	1.07
Liverpool	GBR	53.4167	-3.0000	1.29
Newlyn	GBR	50.1333	-5.5500	0.06
Penzance	GBR	50.1333	-5.5333	0.06
Gweek	GBR	50.0833	-5.2000	1.00
Appledore	GBR	51.0500	-4.2000	1.01
Coryton	GBR	51.5167	0.5333	1.16
Ryde	GBR	50.7333	-1.1500	0.45

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Freshwater Bay(GBR)	GBR	50.6667	-1.5167	0.45
Otterham Quay	GBR	51.3833	0.6333	1.15
Rainham(Kent)	GBR	51.3833	0.6167	1.15
Penryn	GBR	50.1667	-5.1000	0.90
Gillingham	GBR	51.4833	0.5500	1.16
Shell Haven	GBR	51.5000	0.5167	1.16
Southampton	GBR	50.9000	-1.4000	1.06
Creeksea	GBR	51.6167	0.7833	1.18
Sheerness	GBR	51.4333	0.7333	1.17
Cliffe	GBR	51.4833	0.4667	1.28
Totnes	GBR	50.4333	-3.6833	1.26
Bee Ness	GBR	51.4333	0.6500	1.28
Oakham Ness	GBR	51.4167	0.6500	1.28
Queenborough	GBR	51.4167	0.7333	1.27
Bedhampton	GBR	50.8333	-1.0000	1.15
Gibraltar	GIB	36.1500	-5.3333	1.18
Jablanac	HRV	44.7000	14.8667	0.87
Velika Stinica	HRV	44.7167	14.8667	0.87
Sveti Juraj	HRV	44.9333	14.9167	0.92
Senj	HRV	45.0000	14.8833	0.92
Opatija	HRV	45.3333	14.3167	0.86
Maslenica	HRV	44.2167	15.5333	1.26
Makarska	HRV	43.2833	17.0167	0.95
Rijeka	HRV	45.3167	14.4333	1.18
Omisalj	HRV	45.2167	14.5500	1.08
Kraljevica	HRV	45.2833	14.5667	1.08
Prtlog	HRV	45.0500	14.1500	1.19
Rabac	HRV	45.0667	14.1667	1.19
Gruz	HRV	42.6667	18.0833	1.24
Dubrovnik	HRV	42.6333	18.1167	1.24
Ramsey	IOM	54.3167	-4.3833	0.54
Douglas	IOM	54.1500	-4.4667	0.52
Peel	IOM	54.2333	-4.7000	0.55
Castletown	IOM	54.0667	-4.6500	0.53
Port St. Mary	IOM	54.0667	-4.7333	0.53
Greenore	IRL	54.0333	-6.1333	0.74
Buncrana	IRL	55.1333	-7.4500	0.80
Rathmullen	IRL	55.1000	-7.5333	0.79
Killybegs	IRL	54.6333	-8.4333	0.36
Dun Laoghaire	IRL	53.3000	-6.1333	0.50
Dublin	IRL	53.3500	-6.2167	0.50
Wicklow	IRL	52.9833	-6.0333	0.51
Moville	IRL	55.1833	-7.0333	0.42
Fenit	IRL	52.2667	-9.8500	0.25
Spiddle	IRL	53.2500	-9.3000	0.26
Killala	IRL	54.2167	-9.2167	0.91
Whiddy Is.	IRL	51.6833	-9.5333	0.72
Burtonport	IRL	55.0000	-8.4333	0.36
Galway	IRL	53.2667	-9.0500	0.24
Port Milford	IRL	55.1000	-7.7000	1.27
Bantry	IRL	51.7000	-9.4667	0.83



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Rosslare	IRL	52.2500	-6.3333	0.26
Wexford	IRL	52.3333	-6.4167	0.26
Dungarvan	IRL	52.0833	-7.6000	0.21
Arklow	IRL	52.8000	-6.1500	0.24
Cobh	IRL	51.8500	-8.2833	0.54
Castletownbere	IRL	51.6500	-9.9000	0.15
Newport(Co Mayo)	IRL	53.8833	-9.5500	1.19
Glengariff	IRL	51.7500	-9.5333	0.96
Whitegate	IRL	51.8333	-8.2500	0.53
Ventry	IRL	52.1167	-10.2000	0.12
Dingle	IRL	52.1333	-10.2667	0.12
Ringaskiddy	IRL	51.8333	-8.3167	0.63
Waterford	IRL	52.1167	-6.9167	0.15
Dundalk	IRL	54.0000	-6.3833	1.05
Skull	IRL	51.5167	-9.5333	0.11
Youghal	IRL	51.9333	-7.8333	0.17
Passage West	IRL	51.8667	-8.3333	0.94
Cahirciveen	IRL	51.9667	-10.3333	0.19
Valentia	IRL	51.9333	-10.3000	0.19
Baltimore(IRL)	IRL	51.4500	-9.4000	0.11
Kilrush	IRL	52.6333	-9.5000	1.13
Kinsale	IRL	51.7000	-8.5000	0.96
Ballylongford	IRL	52.5500	-9.4667	1.13
Courtmacsherry	IRL	51.6333	-8.7167	1.02
Glandore	IRL	51.5667	-9.1167	1.19
Stokkseyri	ISL	63.8333	-21.0833	1.20
Eyrbakki	ISL	63.8667	-21.1500	1.23
Hafnarfjordur	ISL	64.0667	-21.9167	1.19
Kopavogur	ISL	64.1000	-21.8833	1.19
Korsnes(ISL)	ISL	64.1167	-21.9000	1.19
Gardabaer	ISL	64.0667	-21.9333	1.19
Reykjavik	ISL	64.1497	-21.9475	1.19
Dyrholaey	ISL	63.4000	-19.1333	1.12
Hofn	ISL	64.2667	-15.2167	1.21
Grindavik	ISL	63.8333	-22.4333	1.07
Akranes	ISL	64.3167	-22.0833	1.14
Straumsvik	ISL	64.0500	-22.0500	1.13
Keflavik	ISL	64.0000	-22.5500	1.13
Sandgerdhi	ISL	64.0500	-22.7167	1.13
Reykjanes	ISL	63.8000	-22.7000	1.16
Vestmannaeyjar	ISL	63.4333	-20.2667	0.99
San Remo	ITA	43.8167	7.7833	0.92
Portofino	ITA	44.3000	9.2333	1.08
Santa Margherita(ITA)	ITA	44.3333	9.2167	1.08
Marina di Carrara	ITA	44.0333	10.0500	1.15
Lavagna	ITA	44.3000	9.3500	1.21
Sestri Levante	ITA	44.2667	9.3833	1.21
Genoa	ITA	44.4167	8.9167	1.25
La Spezia	ITA	44.1167	9.8333	1.22
Portovenere	ITA	44.0500	9.8333	1.22
Formia	ITA	41.2500	13.6000	1.27

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ventimiglia	ITA	43.7833	7.6000	1.29
Bordighera	ITA	43.7833	7.6667	1.29
Nemuro	JPN	43.3333	145.5833	1.22
Tokachi	JPN	42.3000	143.3333	1.15
Akkeshi	JPN	43.0500	144.8500	1.21
Kushiro	JPN	42.9833	144.3667	1.24
Wakkanai	JPN	45.4167	141.7000	0.90
Wanishi	JPN	42.3333	141.0000	0.97
Shiriya	JPN	41.4000	141.4667	0.88
Ishikari	JPN	43.2500	141.3500	0.83
Kuji	JPN	40.1667	141.7833	0.85
Tamagawa	JPN	40.0833	141.8333	0.85
Kawauchi	JPN	41.1667	141.0000	0.89
Hachinohe	JPN	40.5333	141.5333	0.88
Mutsu Ogawara	JPN	40.9500	141.4167	0.92
Ofunato	JPN	38.9833	141.7500	0.93
Okuma	JPN	37.3833	140.9833	0.90
Tomioka	JPN	37.3333	141.0000	0.90
Hirono	JPN	37.2333	141.0167	0.90
Fukushima	JPN	41.4667	140.2667	1.21
Sokcho	KOR	38.2333	128.5500	1.20
Donghae	KOR	37.5136	129.1203	1.24
Samchok	KOR	37.4842	129.1239	1.24
Okke	KOR	37.5000	129.0833	1.24
Mukho	KOR	37.5492	129.1086	1.24
Essaouira	MAR	31.5000	-9.7833	1.08
Tangier	MAR	35.7833	-5.8000	1.24
Monte Carlo	MCO	43.7333	7.4167	1.08
Morro Redondo	MEX	28.0500	-115.1833	1.13
El Sauzal	MEX	31.8833	-116.6833	1.29
Budva	MTG	42.2833	18.8500	1.21
Luderitz	NAM	-26.6333	15.1500	1.14
Eemshaven	NLD	53.4500	6.8333	0.76
Farmsum	NLD	53.3167	6.9333	0.76
Delfzijl	NLD	53.3333	6.9333	0.76
Schiermonnikoog	NLD	53.4833	6.1500	0.70
Ameland	NLD	53.4500	5.6333	0.68
Terschelling	NLD	53.3667	5.2167	0.63
Oostmahorn	NLD	53.3833	6.1667	0.92
Vlissingen	NLD	52.45	4.58	0.44
Texel	NLD	53.1833	4.8500	0.63
Workum	NLD	52.9833	5.4333	0.72
Sneek	NLD	53.0333	5.6667	0.77
Franeker	NLD	53.1833	5.5500	0.77
Makkum	NLD	53.0667	5.4000	0.70
Harlingen	NLD	53.1833	5.4167	0.70
Meppel	NLD	52.7000	6.2000	0.72
Steenwijk	NLD	52.7833	6.1167	0.71
Lauwersoog	NLD	53.4000	6.2167	1.08
Appingedam	NLD	53.3167	6.8500	1.13
Den Helder	NLD	52.9667	4.7833	0.67

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Den Oever	NLD	52.9167	5.0167	0.72
Zwartsluis	NLD	52.6333	6.0667	0.71
Zwolle	NLD	52.5167	6.1167	0.71
Hasselt	NLD	52.5833	6.0833	0.71
Staveren	NLD	52.8667	5.3500	0.75
Almelo	NLD	52.3667	6.6333	0.72
Lemmer	NLD	52.8500	5.6833	0.77
Balk	NLD	52.9000	5.5667	0.78
Woudsend	NLD	52.9333	5.6167	0.78
Wagenborgen	NLD	53.2500	6.9333	1.20
Siddeburen	NLD	53.2500	6.8667	1.20
Hengelo	NLD	52.2667	6.7667	0.73
Kampen	NLD	52.5833	5.8000	0.80
Schagen	NLD	52.7833	4.7853	0.95
Domburg	NLD	51.5667	3.5000	0.55
Urk	NLD	52.6667	5.6000	0.82
Deventer	NLD	52.2500	6.1500	0.72
Lelystad	NLD	52.5000	5.4333	0.83
Ymuiden	NLD	52.4500	4.5833	0.71
Zandvoort	NLD	52.3667	4.5333	0.71
Hook of Holland	NLD	51.9833	4.1167	0.64
Nijkerk	NLD	52.2167	5.4833	0.73
Doesburg	NLD	52.0167	6.1333	0.73
Loppersum	NLD	53.3167	6.7333	1.28
Lochem	NLD	52.1667	6.4167	0.73
Zutphen	NLD	52.1333	6.2000	0.73
'sGravenhage	NLD	52.0833	4.3000	0.70
Katwijk aan Zee	NLD	52.2000	4.4000	0.70
Scheveningen	NLD	52.1000	4.2667	0.70
Oostvoorne	NLD	51.9167	4.0833	0.66
Europoort	NLD	51.9500	4.0833	0.66
Muiden	NLD	52.3167	5.0667	0.83
Almere-Haven	NLD	52.3333	5.2167	0.83
Monnickendam	NLD	52.4667	5.0333	0.83
Doetinchem	NLD	51.9667	6.2833	0.74
Spaarndam	NLD	52.4167	4.6833	0.97
Alkmaar	NLD	52.6333	4.7167	1.08
Lisserbroek	NLD	52.2667	4.5667	1.06
Hillegom	NLD	52.3000	4.5833	1.06
Heemstede	NLD	52.3500	4.6000	1.06
Middelburg	NLD	51.5000	3.6167	1.10
West Grafdijk	NLD	52.5500	4.7833	1.17
Halfweg	NLD	52.3833	4.7500	1.11
Midwolda	NLD	53.1833	6.9833	1.28
Leiden	NLD	52.1500	4.4667	1.10
Kaag	NLD	52.2000	4.5333	1.12
Leiderdorp	NLD	52.1333	4.5167	1.12
Warmond	NLD	52.1833	4.4833	1.12
Pijnacker	NLD	52.0000	4.4167	1.20
Delft	NLD	52.0167	4.3667	1.20
Flushing	NLD	51.4500	3.5833	0.62

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Breskens	NLD	51.4000	3.5667	0.62
Flushing East	NLD	51.4500	3.6667	1.25
Stokmarknes	NOR	68.5667	14.9167	1.23
Svolvaer	NOR	68.2333	14.5667	1.22
Ballstad	NOR	68.0667	13.5333	1.07
Gravdal	NOR	68.1167	13.5500	1.07
Brettesnes	NOR	68.2333	14.8667	1.21
Bodo	NOR	67.2833	14.3833	1.18
Vats	NOR	59.4833	5.7500	0.99
Marnes	NOR	67.1333	14.0833	1.17
Dyroy	NOR	68.8167	14.8167	1.20
Jelsa	NOR	59.3333	6.0333	0.97
Midsund	NOR	62.7000	6.7000	0.92
Lodingen	NOR	68.4167	16.0000	1.20
Dryna	NOR	62.6333	6.5333	0.90
Henningsvaer	NOR	68.1500	14.2167	1.15
More	NOR	62.4667	6.1500	0.89
Aalesund	NOR	62.4667	6.1667	0.89
Floro	NOR	61.6000	5.0333	0.87
Harstad	NOR	68.8000	16.5500	1.22
Sandnessjoen	NOR	66.0167	12.6333	1.14
Bergneset	NOR	68.8000	16.0000	1.18
Tau	NOR	59.0667	5.9333	0.85
Randaberg	NOR	59.0000	5.6333	0.83
Sortland	NOR	68.7000	15.4333	1.15
Bokn	NOR	59.2167	5.4500	0.81
Foresvik	NOR	59.2167	5.4333	0.81
Skudeneshavn	NOR	59.1333	5.2667	0.81
Hilleren	NOR	60.1667	5.0833	0.82
Stamsund	NOR	68.1167	13.8500	1.11
Bekkjarvik	NOR	60.0000	5.2167	0.81
Salthella	NOR	60.0000	5.1167	0.81
Vigsnes	NOR	59.4000	5.1333	0.80
Aakrehamn	NOR	59.2500	5.1667	0.79
Myre	NOR	69.0833	15.9500	1.16
Espevaer	NOR	59.5833	5.1500	0.80
Mandal	NOR	58.0333	7.4667	0.89
Stavanger	NOR	58.9667	5.7333	0.81
Asvall	NOR	59.0167	9.6000	1.12
Bamble	NOR	59.0167	9.6667	1.12
Andenes	NOR	69.3167	16.1333	1.18
Lysaker	NOR	59.9167	10.6333	1.26
Rosfjord	NOR	58.0500	6.9833	0.84
Hareid	NOR	62.3667	6.0333	1.18
Hjorungavaag	NOR	62.3500	6.0833	1.18
Nusfjord	NOR	68.0333	13.3500	1.11
Husoy	NOR	61.0167	4.7000	0.81
Drammen	NOR	59.7333	10.2333	1.27
Solumstrand	NOR	59.7167	10.2833	1.27
Drobak	NOR	59.6500	10.6333	1.23
Tofte	NOR	59.5500	10.5833	1.23

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Halvorshavn	NOR	59.5833	10.6167	1.23
Slemmestad	NOR	59.7833	10.5000	1.25
Oslo	NOR	59.9000	10.7167	1.24
Kollsnes	NOR	60.5667	4.8333	0.78
Bovagen	NOR	60.7000	4.9333	0.78
Sture	NOR	60.6167	4.8500	0.78
Sogne	NOR	58.0833	7.7833	0.89
Kolvereid	NOR	64.8833	11.5833	0.87
Mastrevik	NOR	60.8000	4.9667	0.78
Fedje	NOR	60.7500	4.7333	0.78
Kjelstraum	NOR	60.8000	4.9500	0.78
Sande	NOR	59.5833	10.2500	1.25
Holmestrand	NOR	59.5333	10.2667	1.25
Lauvsnes	NOR	64.5000	10.9000	0.85
Kalvaag	NOR	61.7667	4.8833	0.78
Gronsfjord	NOR	58.0167	7.0333	0.84
Ottersoy	NOR	64.8500	11.2833	0.85
Rorvik	NOR	64.8667	11.2667	0.85
Haugsholmen	NOR	62.1667	5.4000	0.78
Selje	NOR	62.0500	5.3667	0.78
Sola	NOR	58.9167	5.5667	0.75
Abelvaer	NOR	64.7333	11.1667	0.85
Stokksund	NOR	64.0333	10.0333	0.84
Langesund	NOR	59.0000	9.7500	1.09
Kristiansand	NOR	58.1500	8.0000	0.88
Sovik	NOR	65.9167	12.4333	0.90
Melsomvik	NOR	59.2167	10.3500	1.10
Magero	NOR	59.1500	10.4333	1.10
Sandefjord	NOR	59.1333	10.2333	1.10
Kaarsto	NOR	59.2667	5.5333	0.76
Raudeberg	NOR	61.9833	5.1000	0.78
Bronnoysund	NOR	65.4667	12.2167	0.85
Hurum	NOR	59.6167	10.4500	1.24
Svelvik	NOR	59.6167	10.4167	1.24
Lysoysund	NOR	63.8833	9.8833	0.84
Tjorvaag	NOR	62.2833	5.7500	0.77
Ulsteinvik	NOR	62.3500	5.8500	0.77
Ryvingen	NOR	57.9667	7.5000	0.73
Gursken	NOR	62.2333	5.5500	0.77
Fosnavaag	NOR	62.3500	5.6333	0.77
Moltustranda	NOR	62.3000	5.6500	0.77
Lindesnes	NOR	57.9833	7.0500	0.85
Kristiansund	NOR	63.1167	7.7333	0.84
Averoy	NOR	63.1167	7.6667	0.83
Brattvag	NOR	62.6000	6.4500	0.84
Voksa	NOR	62.2333	5.4500	0.77
Uthaug	NOR	63.7333	9.6000	0.85
Kragero	NOR	58.8667	9.4167	1.23
Slagen	NOR	59.3167	10.5333	1.17
Moss	NOR	59.4333	10.6667	1.17
Hommelsto	NOR	65.5333	12.3333	0.85

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Hitra	NOR	63.4333	8.4167	0.84
Elnesvagen	NOR	62.8500	7.1500	1.18
Halden	NOR	59.1167	11.3667	1.17
Holm	NOR	59.1000	11.3833	1.17
Tvedestrand	NOR	58.6333	8.9333	1.01
Fonnes	NOR	60.8000	4.9833	0.70
Straumen	NOR	63.3333	8.1000	0.83
Kambo	NOR	59.4833	10.7000	1.17
Hestvika	NOR	63.5667	9.1667	0.85
Lillesand	NOR	58.2500	8.3833	0.91
Aukra	NOR	62.7833	6.9667	0.82
Engene	NOR	59.6833	10.5500	1.23
Fagerstrand	NOR	59.7333	10.6000	1.23
Saetrepollen	NOR	59.6833	10.5333	1.23
Fredrikstad	NOR	59.2000	10.9667	1.15
Borg Hbr.	NOR	59.2000	10.9500	1.15
Sondeled	NOR	58.7167	9.2000	0.83
Kilsund	NOR	58.5500	8.9833	0.83
Gjevingstangholmen	NOR	58.6500	9.1333	0.83
Risor	NOR	58.7167	9.2333	0.81
Sarpsborg	NOR	59.2667	11.1000	1.16
Greaker	NOR	59.2667	11.0333	1.16
Larvik	NOR	59.0500	10.0333	1.11
Storasund	NOR	59.3833	5.2667	0.92
Haugesund	NOR	59.4167	5.2667	0.92
Larkollen	NOR	59.3167	10.6833	1.14
Horten	NOR	59.4167	10.5000	1.20
Telavag	NOR	60.2500	5.0000	0.68
Arendal	NOR	58.4667	8.7667	0.92
Bjugn	NOR	63.7667	9.7333	1.13
Grimstad	NOR	58.3333	8.6000	0.92
Eydehamn	NOR	58.5000	8.8833	1.08
Tjeldbergodden	NOR	63.4167	8.7000	1.15
Valloy	NOR	59.2667	10.5000	1.14
Tonsberg	NOR	59.2667	10.4167	1.14
Avaldsnes	NOR	59.3500	5.2667	1.05
Sandstad	NOR	63.5167	9.0667	1.17
Egersund	NOR	58.4500	6.0000	1.13
Brekstad	NOR	63.6833	9.6667	1.24
Haavik	NOR	59.3167	5.3167	1.17
Fosen	NOR	59.3167	5.3667	1.22
Kopervik	NOR	59.2833	5.3000	1.28
Tarakohe	NZL	-40.8500	172.9000	0.25
Port Chalmers	NZL	-45.8167	170.6167	0.75
Timaru	NZL	-44.3833	171.2500	0.18
Southport(NZL)	NZL	-46.6000	168.3500	0.28
Tiwai Point	NZL	-46.6000	168.4000	0.28
Bluff	NZL	-46.6167	168.3667	0.28
Dunedin	NZL	-45.8833	170.5167	1.06
Christchurch	NZL	-43.5500	172.6667	0.71
Nelson(NZL)	NZL	-41.2667	173.3167	0.25

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Picton(NZL)	NZL	-41.2667	174.0000	0.44
Wellington	NZL	-41.2833	174.7667	0.29
Lyttelton	NZL	-43.6167	172.7167	0.84
Wanganui	NZL	-39.9500	175.0000	0.61
New Plymouth	NZL	-39.0667	174.0833	0.57
Westport(NZL)	NZL	-41.7333	171.5833	0.62
Greymouth	NZL	-42.4333	171.2167	0.63
Napier	NZL	-39.4833	176.9167	0.82
Gisborne	NZL	-38.6833	178.0333	0.85
Onehunga	NZL	-36.9333	174.7667	1.12
Auckland	NZL	-36.8500	174.8000	1.12
Whakatane	NZL	-37.9500	177.0000	1.24
Tauranga	NZL	-37.6500	176.1667	1.28
Callao	PER	-12.0500	-77.1500	1.09
Chancay	PER	-11.6000	-77.2833	1.29
Rajin	PRK	42.1833	130.3167	1.15
Kosong(PRK)	PRK	38.6000	128.3500	1.22
Viana do Castelo	PRT	41.6833	-8.8333	0.65
Peniche	PRT	39.3667	-9.3833	0.83
San Martinho	PRT	39.5167	-9.1500	0.85
Leixoes	PRT	41.1833	-8.7167	1.00
Cascais	PRT	38.6833	-9.4167	0.86
Sines	PRT	37.9500	-8.8667	0.93
Aveiro	PRT	40.6500	-8.7500	1.25
Yuzhno Kurilsk	RUS	44.0500	145.8000	1.27
Burevestnik	RUS	44.9500	147.6167	1.24
Plastun	RUS	44.7167	136.2500	1.19
Sovetskaya Gavan	RUS	49.0333	140.3333	0.93
Vanino	RUS	49.0833	140.2667	0.93
Vladivostok	RUS	43.1167	131.8833	1.28
Podyapolskoye	RUS	42.9333	132.3167	1.24
Yasnomorskiy	RUS	46.7500	141.9000	0.96
Khasan	RUS	42.4667	130.8000	1.19
Tristan da Cunha	SHN	-37.0333	-12.3000	0.67
Stromstad	SWE	58.9333	11.1667	1.14
Edshultshall	SWE	58.1167	11.4667	1.09
Uddevalla	SWE	58.3500	11.9167	1.17
Mossholmen	SWE	57.9500	11.5667	1.16
Marstrand	SWE	57.8833	11.5833	1.16
Roro	SWE	57.7667	11.6167	1.18
Grebbestad	SWE	58.6833	11.2500	1.10
Ockero	SWE	57.7167	11.6333	1.18
Gustavsberg	SWE	58.3333	11.9000	1.14
Munkedalhamn	SWE	58.4333	11.6667	1.12
Skredsvik	SWE	58.3833	11.6500	1.12
Fjallbacka	SWE	58.6000	11.2833	1.07
Ryxo	SWE	58.3667	11.4333	1.11
Stensjo	SWE	58.4000	11.4000	1.11
Henan	SWE	58.2333	11.6667	1.10
Kungshamn	SWE	58.3667	11.2333	1.05
Hunnebostrand	SWE	58.4333	11.3000	1.05

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ramsvik	SWE	58.4333	11.2667	1.05
Smogen	SWE	58.3500	11.2333	1.05
Vasterlanda	SWE	58.1000	12.1167	1.28
Lodose	SWE	58.0333	12.1500	1.28
Gota(SWE)	SWE	58.1000	12.1500	1.28
Lilla Edet	SWE	58.1167	12.1167	1.28
Ronnang	SWE	58.0833	11.6667	1.08
Wallhamn	SWE	58.0000	11.7000	1.14
Stenungsund	SWE	58.0833	11.8167	1.15
Skarhamn	SWE	57.9833	11.5500	1.12
Nol	SWE	57.9333	12.1333	1.26
Bohus	SWE	57.8500	12.0333	1.26
Brofjorden	SWE	58.3333	11.3833	1.08
Lysekil	SWE	58.2667	11.4333	1.08
Surte	SWE	57.8333	12.0167	1.25
Agnesberg	SWE	57.7833	12.0000	1.23
Gothenburg	SWE	57.7000	11.9500	1.23
Donso	SWE	57.5833	11.8000	1.18
Kungsbacka	SWE	57.4833	12.0833	1.21
Erdek	TUR	40.4000	27.7833	1.23
Karabiga	TUR	40.4000	27.3000	1.25
Taichung	TWN	24.2833	120.5000	1.18
Hualien	TWN	24.0000	121.6333	1.14
Suao	TWN	24.6000	121.8667	0.77
La Paloma	URY	-34.6500	-54.1500	1.10
Yakutat	USA	59.5500	-139.7500	1.28
Icy Strait Point	USA	58.1000	-135.6000	1.21
Tenakee Springs	USA	57.7833	-135.2167	1.21
Port Lions	USA	57.8667	-152.8833	1.14
Afognak	USA	58.0000	-152.8333	1.14
Angoon	USA	57.4833	-134.5667	1.13
Petersburg	USA	56.8167	-132.9500	1.12
Johnstown Harbour	USA	44.71	-75.47	1.08
Gustavus	USA	58.4000	-135.7333	1.11
Bartlett Cove	USA	58.4667	-135.8167	1.11
Wrangell	USA	56.4667	-132.3667	1.07
Sitka	USA	57.0500	-135.3333	1.02
Castle Is.	USA	56.6500	-133.1667	1.06
Hoonah	USA	58.1167	-135.4333	1.23
Chenega	USA	60.2667	-148.0667	1.05
Ketchikan	USA	55.3500	-131.6500	0.98
Eastport	USA	44.9000	-66.9833	1.20
Chatham(USA)	USA	57.5167	-134.9500	1.22
Homer	USA	59.6333	-151.5000	1.20
Craig	USA	55.4667	-133.1500	0.86
Klawock	USA	55.5500	-133.1000	0.80
Metlakatla	USA	55.1333	-131.5667	1.00
Tolstoi Bay	USA	55.6667	-132.5167	0.95
Portsmouth(NH USA)	USA	43.0667	-70.7000	0.83
Portland(ME USA)	USA	43.6500	-70.2333	0.79
Hydaburg	USA	55.2000	-132.8167	0.98



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Provincetown	USA	42.0500	-70.1833	0.78
Anacortes	USA	48.5167	-122.6167	1.00
March Point	USA	48.5000	-122.5667	1.00
Friday Hbr.	USA	48.5333	-123.0000	0.96
Sandy Point(USA)	USA	48.8167	-122.7833	0.96
Gloucester(MA USA)	USA	42.6167	-70.6667	0.81
Port Angeles	USA	48.1333	-123.4167	0.69
Manchester(USA)	USA	47.5500	-122.5333	1.12
Sesuit Hbr.	USA	41.7500	-70.1500	0.77
Nantucket Is.	USA	41.2833	-70.1000	0.75
Sandwich(USA)	USA	41.7667	-70.4833	0.83
Willapa	USA	46.7333	-124.0667	0.51
Astoria	USA	46.1833	-123.8333	0.51
Cherry Point	USA	48.8667	-122.7500	0.83
Newport(Oreg)	USA	44.6333	-124.0500	0.52
Point Judith	USA	41.3667	-71.4833	1.03
Ferndale	USA	48.8333	-122.7167	0.77
Bellingham	USA	48.7500	-122.5000	0.74
Westport(WA USA)	USA	46.8833	-124.1000	0.51
New Bedford	USA	41.6333	-70.9167	0.93
Bridgeport	USA	41.1500	-73.1833	1.11
Bayway	USA	40.63	-74.20	0.89
Greenport	USA	41.1000	-72.3500	1.04
Northville	USA	40.9833	-72.6500	1.05
Sag Hbr.	USA	41.0167	-72.3000	1.03
Riverhead	USA	40.9167	-72.6667	1.05
Perth Amboy	USA	40.50	-74.27	0.90
Longview	USA	46.1333	-122.9333	0.74
Rainier	USA	46.0833	-122.9333	0.74
Mukilteo	USA	47.9500	-122.3000	0.69
Everett(WA)	USA	47.9833	-122.2167	0.69
Port Townsend	USA	48.1167	-122.7500	0.61
Fort Bragg	USA	39.4333	-123.8167	0.66
Plymouth(MA USA)	USA	41.9500	-70.6667	0.94
Tacoma	USA	47.2500	-122.4167	0.75
Port Gamble	USA	47.8667	-122.5833	0.67
Edmonds	USA	47.8167	-122.3667	0.74
Point Wells	USA	47.7833	-122.4000	0.74
Seattle	USA	47.6333	-122.3333	0.79
Monterey	USA	36.6000	-121.8833	0.45
Wildwood	USA	38.9667	-74.8167	1.25
Mamaroneck	USA	40.9333	-73.7333	1.21
Sparrow's Point	USA	39.20	-76.47	0.97
Moss Landing	USA	36.8000	-121.7833	0.78
Gaviota	USA	34.4667	-120.2333	0.72
Elwood	USA	34.4333	-119.8833	0.87
Carpinteria	USA	34.4333	-119.6167	0.95
Santa Barbara	USA	34.4000	-119.6833	0.91
Esterro Bay	USA	35.4000	-120.8833	0.99
Morro Bay	USA	35.3667	-120.8500	1.16
Avila	USA	35.1667	-120.7333	1.00

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Port San Luis	USA	35.1667	-120.7500	1.00
Los Angeles	USA	33.7167	-118.2667	1.00
San Pedro(CA USA)	USA	33.7167	-118.2500	1.00
Oceanside	USA	33.2000	-117.3833	1.06
Ventura	USA	34.2667	-119.3000	1.17
Saldanha Bay	ZAF	-33.0500	17.9333	0.70
Dassen Is.	ZAF	-33.4167	18.0833	0.76
Cape Town	ZAF	-33.9167	18.4333	0.76
Robben Is.	ZAF	-33.8000	18.3667	0.76
Cape of Good Hope	ZAF	-34.3500	18.4667	1.01
Port Nolloth	ZAF	-29.2500	16.8667	1.03
Simonstown	ZAF	-34.1833	18.4333	1.18

*Appendix D. List of global ports that have highest environmental similarity to Canso-Mulgrave-Point Tupper. NIS originating from these ports have the highest potential for survival if introduced at Canso-Mulgrave-Point Tupper.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Caleta Cordova	ARG	-45.7167	-67.3500	1.26
Caleta Olivia	ARG	-46.4333	-67.5167	1.05
Caleta Paula	ARG	-46.4703	-67.4997	1.05
Camarones	ARG	-44.4500	-65.7000	1.14
Comodoro Rivadavia	ARG	-45.8569	-67.4822	1.07
Puerto Deseado	ARG	-47.7503	-65.8942	0.89
Punta Quilla	ARG	-50.1178	-68.4125	1.27
Rio Gallegos	ARG	-51.6169	-69.2211	1.14
Santa Cruz(ARG)	ARG	-50.1333	-68.3833	1.27
Ulverstone	AUS	-41.2333	146.1667	1.24
Bruges	BEL	51.2219	3.2208	1.19
Nieuwpoort	BEL	51.1336	2.7483	0.82
Ostend	BEL	51.2297	2.9225	0.86
Wielingen	BEL	51.3833	3.3833	0.81
Zandvoorde	BEL	51.2167	2.9667	0.82
Zeebrugge	BEL	51.3231	3.2158	0.75
Argentia	CAN	47.3000	-53.9833	1.10
Aulds Cove	CAN	45.6500	-61.4333	0.00
Bagotville	CAN	48.3500	-70.8833	0.45
Baie Verte	CAN	49.9333	-56.2000	0.86
Bamberton	CAN	48.5833	-123.5167	1.29
Bathurst	CAN	47.6167	-65.6333	0.25
Bay Bulls	CAN	47.3000	-52.7333	1.24
Bay de Verde	CAN	48.0833	-52.9000	1.27
Bay Roberts	CAN	47.5667	-53.2167	1.03
Beaver Hbr.	CAN	44.8667	-62.4000	0.19
Belle Hbr.	CAN	47.6667	-55.3333	0.36
Belledune	CAN	47.9167	-65.8500	0.84
Belleoram	CAN	47.5167	-55.4167	0.36
Bic	CAN	48.3667	-68.7500	0.43
Big Hbr.	CAN	46.1667	-60.4167	0.83

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Black Cape	CAN	48.1167	-65.8167	0.28
Bonaventure	CAN	48.2833	-53.4333	0.42
Bonavista	CAN	48.6500	-53.1167	1.25
Botwood	CAN	49.1500	-55.3167	1.04
Bridgewater(CAN)	CAN	44.3667	-64.5000	0.75
Bull Arm	CAN	47.7667	-53.8000	0.48
Burgeo	CAN	47.6000	-57.6167	0.58
Burin	CAN	47.0333	-55.1667	1.07
Burlington(NF)	CAN	49.7667	-56.0167	0.47
Butchers Cove	CAN	48.8333	-54.0000	1.07
Campbell River	CAN	50.0333	-125.2333	0.94
Campbellton	CAN	48.0167	-66.6667	0.38
Canaport	CAN	45.2700	-66.0500	1.17
Canso Hbr.	CAN	45.3333	-61.0000	0.42
Cap aux Meules	CAN	47.3833	-61.8667	0.56
Cape Tormentine	CAN	46.1000	-63.7667	0.41
Caraquet	CAN	47.8000	-65.0167	0.75
Carbonear	CAN	47.7333	-53.2333	0.41
Carleton	CAN	48.1000	-66.1333	0.34
Carmanville	CAN	49.4000	-54.2833	0.29
Cartwright	CAN	53.7000	-57.0167	1.08
Catalina	CAN	48.5167	-53.0667	1.25
Chandler	CAN	48.3500	-64.6667	0.43
Charlottetown(CAN)	CAN	46.2167	-63.1167	0.41
Chatham(CAN)	CAN	47.0333	-65.4667	0.26
Chemainus	CAN	48.9167	-123.7000	1.17
Cheticamp	CAN	46.6333	-61.0167	0.06
Chevery Harbour	CAN	50.4538	-59.6208	1.29
Clarenville	CAN	48.1667	-53.9500	1.25
Clarks Hbr.	CAN	43.4167	-65.6333	1.14
Cole Hbr.	CAN	45.2500	-61.2833	0.16
Come by Chance	CAN	47.8000	-54.0167	0.50
Comox	CAN	49.6667	-124.9167	1.05
Corner Brook	CAN	48.9500	-57.9333	1.27
Country Hbr.	CAN	45.2167	-61.7333	1.27
Cowichan Bay	CAN	48.7500	-123.6000	1.17
Crofton	CAN	48.8667	-123.6333	1.17
Dalhousie	CAN	48.0667	-66.3667	0.32
Dartmouth(NS)	CAN	44.6667	-63.5833	0.88
Digby	CAN	44.6333	-65.7500	0.39
Dildo	CAN	47.5667	-53.5667	1.07
Dingwall(CAN)	CAN	46.9000	-60.4500	0.52
Duncan Bay	CAN	50.0833	-125.2833	0.66
Eastern Passage	CAN	44.6000	-63.4833	0.26
Fishing East	CAN	44.4500	-58.7833	0.64
Forestville	CAN	48.8000	-69.0667	0.33
Fortune	CAN	47.0667	-55.8333	1.08
Fraser River Port	CAN	49.2000	-122.9167	0.82
Gaspe	CAN	48.8333	-64.4833	0.40
Georgetown(CAN)	CAN	46.1833	-62.5333	0.11
Glace Bay	CAN	46.2000	-59.9500	0.43

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Glovertown	CAN	48.6667	-54.0500	1.07
Grand Bank	CAN	47.1000	-55.7500	0.44
Grande Anse	CAN	48.4000	-70.8333	0.45
Grindstone	CAN	47.3833	-61.8500	0.56
Gros Cacouna	CAN	47.9333	-69.5167	0.46
Halifax	CAN	44.6333	-63.5500	0.56
Hantsport	CAN	45.0667	-64.1667	0.49
Harbour Breton	CAN	47.4833	-55.8000	0.48
Harbour Grace	CAN	47.6833	-53.2167	1.03
Harmac	CAN	49.1333	-123.8500	1.07
Havre St. Pierre	CAN	50.2333	-63.6000	0.73
Hawkes Bay	CAN	50.6167	-57.1667	0.78
Holyrood	CAN	47.4000	-53.1333	0.35
Hubbards	CAN	44.6333	-64.0667	0.86
Isaac's Hbr.	CAN	45.1667	-61.6500	1.17
Jedway	CAN	52.3000	-131.2167	1.17
La Baie	CAN	48.3167	-70.8667	0.50
La Have	CAN	44.2833	-64.3500	0.75
Ladysmith	CAN	48.9833	-123.7833	1.06
L'Anse-au-Loup	CAN	51.5167	-56.8333	1.24
Les Mechins	CAN	49.0167	-66.9833	1.28
Lewisporte	CAN	49.2500	-55.0500	1.28
Liscomb	CAN	45.0000	-62.0000	0.21
Liverpool(NS)	CAN	44.0500	-64.7167	1.05
Long Hbr.	CAN	47.4500	-53.8167	1.10
Long Pond	CAN	47.5167	-52.9667	1.19
Louisburg	CAN	45.9167	-59.9667	0.50
Lower Cove	CAN	48.5167	-59.1000	0.72
Lower Island Cove	CAN	48.0000	-52.9833	1.27
Lunenburg	CAN	44.3667	-64.3000	0.75
Main Brook	CAN	51.1833	-56.0167	0.75
Margaretsville	CAN	45.0500	-65.0667	1.09
Marystown	CAN	47.1667	-55.1500	1.07
Meteghan	CAN	44.2000	-66.1667	0.37
Millbank	CAN	47.0500	-65.4500	0.26
Milltown	CAN	47.9000	-55.7833	1.10
Mont Louis	CAN	49.2333	-65.7333	1.08
Montague	CAN	46.1667	-62.6333	0.13
Moosonee	CAN	51.2667	-80.6500	0.90
Mulgrave	CAN	45.5833	-61.3833	0.00
Nanaimo	CAN	49.1667	-123.9333	1.07
New Hbr.	CAN	44.4667	-64.0833	0.69
New Mills	CAN	47.9500	-66.1667	0.34
Newcastle(NB)	CAN	47.0000	-65.5500	0.27
North Sydney	CAN	46.2000	-60.2500	0.51
Nova Scotia Power Corporation Wharf	CAN	45.5817	-61.3515	0.79
Parrsboro	CAN	45.3833	-64.3333	0.10
Paspebiac	CAN	48.0333	-65.2333	0.31
Perce	CAN	48.5000	-64.2167	0.90
Pictou	CAN	45.6833	-62.7167	0.16

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Plumper Sound	CAN	48.7667	-123.2000	1.23
Point Tupper	CAN	45.6000	-61.3667	0.00
Pointe Noire(CAN)	CAN	50.1667	-66.4667	1.10
Port Alfred	CAN	48.3333	-70.8667	0.50
Port aux Basques	CAN	47.5667	-59.1167	0.55
Port Cartier	CAN	50.0167	-66.8667	0.57
Port de Grave	CAN	47.6000	-53.2000	1.03
Port Edward	CAN	54.2333	-130.3000	0.90
Port Hastings	CAN	45.6500	-61.4000	0.00
Port Hawkesbury	CAN	45.6167	-61.3500	0.00
Port Mellon	CAN	49.5167	-123.4833	0.72
Port Menier	CAN	49.8167	-64.3500	0.60
Port Saunders	CAN	50.6333	-57.3000	1.24
Port Union	CAN	48.5000	-53.0833	1.25
Powell River	CAN	49.8667	-124.5500	0.68
Prince Rupert	CAN	54.3167	-130.3667	0.89
Pugwash	CAN	45.8667	-63.6667	0.38
Ramea Is.	CAN	47.5167	-57.4167	0.69
Richibucto	CAN	46.6833	-64.8667	0.24
Richmond(CAN)	CAN	49.1500	-123.1667	0.85
Riverport	CAN	44.2833	-64.3333	0.75
Roberts Bank	CAN	49.0167	-123.1333	0.79
Roddickton	CAN	50.8667	-56.1167	1.29
Saint John(CAN)	CAN	45.2667	-66.0667	0.19
Sechelt	CAN	49.4667	-123.7500	0.82
Seven Islands (Sept-Iles)	CAN	50.1000	-66.3833	1.10
Shediac	CAN	46.2333	-64.5333	0.49
Sheet Hbr.	CAN	44.8500	-62.4500	0.19
Shelburne	CAN	43.6667	-65.3167	1.09
Ship Harbour	CAN	44.7500	-62.7500	0.14
Shippegan	CAN	47.7500	-64.7000	0.76
Sidney	CAN	48.6500	-123.3833	1.28
Sonora	CAN	45.0667	-61.9167	1.25
Souris	CAN	46.3500	-62.2500	0.39
South Nelson	CAN	46.9833	-65.5500	0.27
Springdale	CAN	49.5000	-56.0667	0.36
Squamish	CAN	49.6833	-123.1667	0.87
St. Albans	CAN	47.8667	-55.8500	1.23
St. Andrews(CAN)	CAN	45.0667	-67.0500	0.78
St. Augustin	CAN	51.2225	-58.6451	1.29
St. Barbe Hbr.	CAN	51.2000	-56.7667	0.81
St. George's Hbr.(CAN)	CAN	48.4500	-58.4833	0.43
St. Jean	CAN	48.2500	-70.1833	0.50
St. John's(CAN)	CAN	47.5625	-52.7106	1.21
St. Peter's	CAN	45.6500	-60.8667	0.75
Stephenville	CAN	48.5167	-58.5333	0.46
Strait of Canso	CAN	45.3333	-61.0000	0.80
Summerside	CAN	46.4000	-63.7833	0.19
Sydney(NS)	CAN	46.1500	-60.2000	0.66
Tasu Bay	CAN	52.7667	-132.0500	0.90
Tiverton(CAN)	CAN	44.4000	-66.2167	0.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tommy's Arm	CAN	49.4333	-55.7833	0.61
Turf Point	CAN	48.4333	-58.4667	0.43
Union Bay	CAN	49.5833	-124.8667	1.05
Valleyfield Harbour (Newfoundland)	CAN	49.1208	-53.6078	1.04
Vancouver(CAN)	CAN	49.2833	-123.1167	0.85
Wabana	CAN	47.6333	-52.9167	1.19
Walton(CAN)	CAN	45.2333	-64.0167	0.10
Whiffen Head	CAN	47.7667	-54.0167	0.50
Witless Bay	CAN	47.2833	-52.7667	1.24
Woodfibre	CAN	49.6667	-123.2500	0.69
Yarmouth(CAN)	CAN	43.8333	-66.1167	0.39
Cabo Negro	CHL	-52.9500	-70.7833	1.18
Caleta Clarenca	CHL	-52.9000	-70.1500	1.13
Chacabuco	CHL	-45.4667	-72.8333	1.16
Chaiten	CHL	-42.9167	-72.7167	1.09
Porvenir(CHL)	CHL	-53.2833	-70.3667	1.20
Puerto Aguirre	CHL	-45.1667	-73.5167	1.17
Puerto Aisen	CHL	-45.3833	-72.6833	1.07
Puerto Cisnes	CHL	-44.7333	-72.7000	1.08
Puerto Montt	CHL	-41.4667	-72.9500	1.14
Puerto Natales	CHL	-51.7167	-72.5167	1.12
Punta Delgada	CHL	-52.4500	-69.5333	1.04
Bayuquan	CHN	40.2667	122.1000	0.83
Beiliang	CHN	38.9667	121.8000	0.91
Dalian	CHN	38.9167	121.6833	1.10
Huludao	CHN	40.7167	120.9833	0.50
Jinxi	CHN	40.7667	120.7833	0.92
Jinzhou	CHN	40.7500	121.1000	0.98
Longyan	CHN	37.4000	122.6167	1.17
Penglai	CHN	37.8167	120.7167	0.96
Qinhuangdao	CHN	39.9000	119.6000	1.13
Rongcheng	CHN	37.1500	122.4000	1.25
Shanhaiguan	CHN	39.9864	119.8292	1.11
Shidao	CHN	36.8833	122.4667	1.13
Weihai	CHN	37.5000	122.1500	1.07
Yantai	CHN	37.5667	121.4333	1.03
Zhuanghe	CHN	39.6833	122.9667	0.99
Abbenfleth	DEU	53.6833	9.5000	0.65
Amrum Is.	DEU	54.6333	8.3500	0.48
Baltrum	DEU	53.7333	7.4000	0.55
Bardenfleth	DEU	53.1500	8.5500	0.60
Beidenfleth	DEU	53.8667	9.4333	0.65
Bensersiel	DEU	53.6833	7.5833	0.57
Blexen	DEU	53.5333	8.5333	0.60
Blumenthal	DEU	53.1833	8.5667	0.60
Borkum	DEU	53.5833	6.6667	0.58
Brake	DEU	53.3333	8.4833	0.61
Bremen	DEU	53.0833	8.7833	0.60
Bremerhaven	DEU	53.5500	8.5833	0.60
Brokdorf	DEU	53.8667	9.3333	0.65

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Brunsbüttel	DEU	53.9000	9.1333	0.65
Burg	DEU	53.9833	9.2833	0.65
Burgstaaken	DEU	54.4167	11.2000	1.24
Busum	DEU	54.1333	8.8667	0.58
Butzfleth	DEU	53.6500	9.5167	0.65
Cuxhaven	DEU	53.8667	8.7000	0.68
Dagebull	DEU	54.7333	8.7333	0.56
Ditzum	DEU	53.3167	7.2667	0.91
Eckernförde	DEU	54.4833	9.8500	1.17
Einswarden	DEU	53.5167	8.5167	0.60
Elmshorn	DEU	53.7500	9.6500	0.65
Elsfleth	DEU	53.2333	8.4667	0.61
Emden	DEU	53.3500	7.1833	0.78
Farge	DEU	53.2000	8.5167	0.60
Fischerhütte	DEU	54.1500	9.3667	0.64
Flensburg	DEU	54.8000	9.4333	1.00
Freiburg	DEU	53.8167	9.3000	0.66
Friedrichstadt	DEU	54.3833	9.0833	0.58
Ganspe	DEU	53.2000	8.5500	0.60
Gelting	DEU	54.7333	9.9000	1.00
Glückstadt	DEU	53.7833	9.4167	0.65
Gromitz	DEU	54.1500	10.9833	1.27
Hamburg	DEU	53.5500	9.9667	0.64
Harlesiel	DEU	53.6333	7.7500	0.58
Heiligenhafen	DEU	54.3667	10.9833	1.24
Helgoland	DEU	54.1500	7.8833	0.52
Hemmoor	DEU	53.7000	9.1333	0.66
Hochdonn	DEU	54.0167	9.3000	0.65
Holmer Siel	DEU	54.5333	8.8667	0.56
Holtenua	DEU	54.3667	10.1500	1.17
Hornum	DEU	54.7500	8.3000	0.47
Horumersiel	DEU	53.6667	8.0167	0.54
Husum(DEU)	DEU	54.4833	9.0500	0.56
Itzehoe	DEU	53.9333	9.5167	0.65
Juist	DEU	53.6833	7.0000	0.57
Kappeln	DEU	54.6667	9.9333	1.12
Kiel	DEU	54.3167	10.1333	1.17
Krautsand	DEU	53.7667	9.3833	0.65
Laboe	DEU	54.4000	10.2167	1.17
Langeoog	DEU	53.7500	7.5333	0.53
Lemwerder	DEU	53.1667	8.6000	0.60
List	DEU	55.0167	8.4333	0.48
Neuenfelde	DEU	53.5000	9.8167	0.64
Neuhaus	DEU	53.8000	9.0333	0.66
Norddeich	DEU	53.6333	7.1667	0.60
Nordenham	DEU	53.4833	8.4833	0.60
Norderney	DEU	53.7000	7.1667	0.57
Nordstrand	DEU	54.4833	8.9167	0.56
Oldenburg	DEU	53.1500	8.2333	0.61
Olpenitz	DEU	54.6500	9.9833	1.12
Orth	DEU	54.4500	11.0500	1.24

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Oslebshausen	DEU	53.1333	8.7333	0.60
Ostermoor	DEU	53.9167	9.1833	0.65
Otterndorf	DEU	53.8167	8.9000	0.60
Puttgarden	DEU	54.5000	11.2333	1.27
Rendsburg	DEU	54.3167	9.6667	0.65
Ruthenstrom	DEU	53.7333	9.4000	0.65
Schacht-Audorf	DEU	54.3000	9.7167	0.65
Schleswig	DEU	54.5167	9.5667	1.17
Schulau	DEU	53.5667	9.7000	0.65
Schwarzenhutten	DEU	53.7000	9.1667	0.66
Stade	DEU	53.6000	9.4833	0.66
Stadersand	DEU	53.6167	9.5333	0.65
Tonning	DEU	54.3167	8.9500	0.58
Utersen	DEU	53.6667	9.6500	0.65
Wangerooge	DEU	53.7833	7.9000	0.52
Wesermunde	DEU	53.5333	8.5833	0.60
Wewelsfleth	DEU	53.8500	9.4000	0.65
Wilhelmshaven	DEU	53.5167	8.1500	0.54
Wischhafen	DEU	53.7833	9.3333	0.66
Wismar	DEU	53.9000	11.4667	1.28
Wyk	DEU	54.7000	8.5833	0.46
Aabenraa	DNK	55.0333	9.4333	1.00
Aalborg	DNK	57.0500	9.9167	0.53
Aarhus	DNK	56.1500	10.2167	0.88
Aarosund	DNK	55.2667	9.7167	0.94
Aeroskobing	DNK	54.8833	10.4167	1.11
Anholt	DNK	56.7167	11.5167	0.91
Asa	DNK	57.1500	10.4167	0.64
Asaa	DNK	57.1333	10.4000	0.64
Asnaesvaerkets Havn	DNK	55.6667	11.0833	1.03
Assens	DNK	55.2667	9.9000	1.03
Augustenborg	DNK	54.9500	9.8667	1.00
Avedore	DNK	55.6000	12.4833	1.23
Bagenkop	DNK	54.7500	10.6667	1.19
Ballen	DNK	55.8167	10.6500	0.95
Bandholm	DNK	54.8333	11.5000	1.17
Bogense	DNK	55.5667	10.0833	0.93
Copenhagen	DNK	55.7000	12.6167	1.23
Dragor	DNK	55.5833	12.6833	1.23
Ebeltoft	DNK	56.2000	10.6667	0.91
Egernsund	DNK	54.9000	9.6000	1.00
Elsinore	DNK	56.0333	12.6167	1.19
Endelave	DNK	55.7500	10.2667	0.98
Enstedvaerkets Havn	DNK	55.0167	9.4333	1.00
Esbjerg	DNK	55.4667	8.4333	0.49
Faaborg	DNK	55.1000	10.2333	1.15
Fakse Ladeplads	DNK	55.2167	12.1667	1.20
Fano Is.	DNK	55.4167	8.4167	0.49
Fredericia	DNK	55.5667	9.7500	0.89
Frederikshavn	DNK	57.4333	10.5500	0.63
Frederikssund	DNK	55.8333	12.0500	1.04



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Frederiksvaerk	DNK	55.9667	12.0167	1.03
Gedser	DNK	54.5667	11.9333	1.19
Glatved	DNK	56.3000	10.8500	0.90
Graasten	DNK	54.9167	9.6167	1.00
Grenaa	DNK	56.4133	10.9131	0.90
Guldborg	DNK	54.8667	11.7500	1.17
Gulfhavn	DNK	55.2000	11.2500	1.16
Haderslev	DNK	55.2500	9.5000	0.94
Hadsund	DNK	56.7167	10.1167	0.79
Hals	DNK	56.9833	10.3167	0.83
Halsskov	DNK	55.3333	11.1000	1.10
Hanstholm	DNK	57.1167	8.5833	0.76
Hardeshoj	DNK	55.0000	9.6833	0.94
Havneby	DNK	55.1000	8.5667	0.45
Hellerup	DNK	55.7333	12.5833	1.22
Hirtshals	DNK	57.6000	9.9667	0.72
Hobro	DNK	56.6333	9.8000	0.79
Holbaek	DNK	55.7167	11.7167	1.04
Horsens	DNK	55.8500	9.8667	0.94
Hundested	DNK	55.9667	11.8500	1.10
Juelsminde	DNK	55.7167	10.0167	0.93
Kalundborg	DNK	55.6833	11.0833	1.03
Karrebaeksminde	DNK	55.1667	11.6333	1.16
Kastrup	DNK	55.6333	12.6500	1.23
Katholm	DNK	54.9333	9.8333	1.00
Kerteminde	DNK	55.4500	10.6667	1.09
Koge	DNK	55.4500	12.2000	1.21
Kolby Kaas	DNK	55.8000	10.5333	0.95
Kolding	DNK	55.5000	9.5000	0.96
Kongsdal	DNK	56.6833	10.0667	0.79
Korsor	DNK	55.3333	11.1333	1.10
Kyndby	DNK	55.8167	11.8833	1.10
Laeso	DNK	57.2167	10.7000	0.65
Lemvig	DNK	56.5500	8.3000	0.87
Lindo	DNK	55.4667	10.5333	1.09
Lyngs Odde	DNK	55.5167	9.7500	0.91
Lyngsbaek Bridge	DNK	56.2333	10.6167	0.89
Mariager	DNK	56.6500	9.9833	0.79
Marstal	DNK	54.8500	10.5167	1.14
Masnedo	DNK	55.0000	11.9000	1.16
Masnedsund	DNK	55.0000	11.9000	1.16
Middelfart	DNK	55.5000	9.7333	0.91
Naestved	DNK	55.2333	11.7500	1.16
Nakskov	DNK	54.8333	11.1333	1.20
Nordby	DNK	55.4500	8.4000	0.49
Norresundby	DNK	57.0667	9.9167	0.53
Nyborg	DNK	55.3000	10.7833	1.07
Nyhavn	DNK	55.6833	12.5833	1.23
Nykobing(Falster)	DNK	54.7667	11.8667	1.20
Nykobing(Sjaelland)	DNK	55.9167	11.6833	1.09
Odden	DNK	55.9667	11.3667	1.03

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Odense	DNK	55.4167	10.3833	1.09
Omo	DNK	55.1667	11.1500	1.15
Orehoved	DNK	54.9500	11.8500	1.16
Ostby	DNK	55.7333	12.0333	1.04
Praesto	DNK	55.1167	12.0333	1.20
Randers	DNK	56.4667	10.0500	0.79
Ribe	DNK	55.3167	8.7667	0.55
Ringkobing	DNK	56.0833	8.2333	0.63
Ringsted	DNK	55.8833	12.5333	1.21
Rodbyhavn	DNK	54.6500	11.3500	1.27
Rudkobing	DNK	54.9333	10.7167	1.14
Saebj	DNK	57.3333	10.5167	0.63
Sakskobing	DNK	54.8000	11.6333	1.17
Skaelskor	DNK	55.2500	11.2833	1.16
Skaerbaek	DNK	55.5167	9.6167	0.96
Skagen	DNK	57.7167	10.6000	0.62
Snaptun	DNK	55.8167	10.0333	0.95
Soby	DNK	54.9500	10.2667	1.11
Sonderborg	DNK	54.9167	9.7833	1.00
Sprago	DNK	55.3333	10.9667	1.07
Stevns Pier	DNK	55.3167	12.4500	1.22
Stigsnaesvaerkets Havn	DNK	55.2167	11.2500	1.16
Strandby	DNK	57.4833	10.5167	0.63
Strib	DNK	55.5333	9.7667	0.89
Studstrup	DNK	56.2500	10.3500	0.87
Svendborg	DNK	55.0500	10.6167	1.14
Thyboron	DNK	56.7000	8.2167	0.74
Tuborg Havn	DNK	55.7167	12.5833	1.23
Understed	DNK	57.3833	10.5000	0.63
Vedbaek	DNK	55.8500	12.5500	1.21
Vejle	DNK	55.7167	9.5500	0.94
Vordingborg	DNK	55.0000	11.9000	1.16
Antifer	FRA	49.6667	0.1667	1.08
Barfleur	FRA	49.6667	-1.2500	1.19
Boulogne	FRA	50.7333	1.6167	1.02
Brest	FRA	48.3833	-4.4833	1.21
Calais	FRA	50.9667	1.8500	0.89
Camaret	FRA	48.2833	-4.6000	1.21
Cancale	FRA	48.6667	-1.8500	1.12
Carteret	FRA	49.3667	-1.8000	1.21
Cherbourg	FRA	49.6411	-1.6142	1.04
Concarneau	FRA	47.8667	-3.9167	1.17
Courseulles sur Mer	FRA	49.3333	-0.4500	1.05
Dahouet	FRA	48.5833	-2.5667	1.18
Deauville	FRA	49.3500	0.0667	0.95
Dielette	FRA	49.5500	-1.8500	1.21
Dieppe	FRA	49.9333	1.0833	0.92
Douarnenez	FRA	48.1000	-4.3333	1.19
Dunkirk	FRA	51.0500	2.3500	0.90
Erquy	FRA	48.6333	-2.4667	1.17
Etaples	FRA	50.5167	1.6333	1.15

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Fecamp	FRA	49.7667	0.3667	1.11
Granville	FRA	48.8333	-1.6000	1.16
Gravelines	FRA	50.9833	2.1333	0.90
Honfleur	FRA	49.4167	0.2333	0.94
La Pallice	FRA	46.1667	-1.2333	1.28
La Rochelle	FRA	46.1500	-1.1500	1.24
La Trinite sur Mer	FRA	47.5833	-3.0333	1.19
Le Guildo	FRA	48.6333	-2.2333	1.16
Le Havre	FRA	49.4833	0.1167	1.08
Le Legue	FRA	48.5333	-2.7167	1.18
Le Palais	FRA	47.3500	-3.1667	1.25
Le Treport	FRA	50.0667	1.3667	0.90
Loctudy	FRA	47.8333	-4.1667	1.25
Mardyck	FRA	51.0000	2.2333	0.90
Morgat	FRA	48.2167	-4.5000	1.21
Morlaix	FRA	48.6333	-3.8833	1.15
Ouistreham	FRA	49.2833	-0.2500	1.05
Paimpol	FRA	48.7833	-3.0500	1.27
Paluden	FRA	48.5833	-4.5167	1.17
Piriac	FRA	47.3833	-2.5500	1.13
Pornic	FRA	47.1167	-2.1167	1.07
Port Barrier	FRA	48.6333	-2.4167	1.17
Port Joinville	FRA	46.7333	-2.3500	1.13
Quiberon	FRA	47.5000	-3.1167	1.23
Roscoff	FRA	48.7167	-3.9833	1.10
Sables d'Olonne	FRA	46.5000	-1.8000	1.16
Saint Brevin	FRA	47.2500	-2.1500	1.15
Saint Quay Portrieux	FRA	48.6500	-2.8333	1.20
St. Malo	FRA	48.6494	-2.0253	1.16
St. Nazaire	FRA	47.2667	-2.2000	1.17
St. Valery en Caux	FRA	49.8667	0.7167	1.10
Aberdeen(GBR)	GBR	57.1500	-2.0667	0.98
Aberdovey	GBR	52.5333	-4.0500	0.95
Aberlady Bay	GBR	56.0167	-2.8500	1.24
Aberystwyth	GBR	52.4000	-4.1000	0.96
Alderney	GBR	49.7167	-2.2000	1.22
Alnwick	GBR	55.4000	-1.7000	1.21
Annan	GBR	54.9833	-3.2667	0.88
Appledore	GBR	51.0500	-4.2000	1.18
Arbroath	GBR	56.5500	-2.5833	0.94
Ardersier	GBR	57.5667	-4.0333	0.95
Ardrihaig	GBR	56.0000	-5.4333	1.00
Ardrossan(GBR)	GBR	55.6333	-4.8167	0.95
Avonmouth	GBR	51.5000	-2.7167	0.91
Ayr	GBR	55.4667	-4.6333	0.93
Ballantrae	GBR	55.1000	-5.0000	1.00
Ballylumford	GBR	54.8333	-5.7833	1.28
Banff	GBR	57.6667	-2.5167	0.98
Barcaldine	GBR	56.5167	-5.4000	1.01
Barrow-in-Furness	GBR	54.1000	-3.2167	0.89
Barry	GBR	51.4000	-3.2667	1.13

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Beaumaris	GBR	53.2667	-4.0833	1.11
Bedhampton	GBR	50.8333	-1.0000	1.19
Bee Ness	GBR	51.4333	0.6500	1.18
Belfast	GBR	54.6000	-5.9333	1.15
Berwick-upon-Tweed	GBR	55.7667	-2.0000	1.22
Blyth	GBR	55.1167	-1.4833	1.22
Borth	GBR	52.4833	-4.0500	0.96
Boston(GBR)	GBR	52.9667	-0.0167	1.18
Braefoot Bay	GBR	56.0333	-3.3000	1.02
Bridlington	GBR	54.0833	-0.1833	1.06
Bridport(GBR)	GBR	50.7167	-2.7667	0.97
Brightlingsea	GBR	51.7833	1.0333	0.87
Brighton(GBR)	GBR	50.8167	-0.1000	0.93
Briton Ferry	GBR	51.6167	-3.8333	0.97
Brixham	GBR	50.4000	-3.5000	1.27
Brodick	GBR	55.5667	-5.1000	1.27
Bromborough	GBR	53.3500	-2.9833	1.21
Buckie	GBR	57.6833	-2.9500	1.04
Bunnahabhainn Bay	GBR	55.8833	-6.1167	1.08
Burghead	GBR	57.7000	-3.5000	0.92
Burnham on Crouch	GBR	51.6167	0.8167	1.04
Burntisland	GBR	56.0500	-3.2333	0.92
Caernarfon	GBR	53.1500	-4.2667	0.96
Cairnryan	GBR	54.9667	-5.0167	0.98
Campbeltown	GBR	55.4167	-5.5833	1.28
Cantley	GBR	52.5667	1.5333	1.01
Canvey Is.	GBR	51.5167	0.6333	0.88
Carrickfergus	GBR	54.6500	-5.8833	0.99
Casquets	GBR	49.7333	-2.3833	1.22
Cemaes Bay	GBR	53.4167	-4.4500	1.16
Charlestown(England)	GBR	50.3333	-4.7500	1.07
Charlestown(Scotland)	GBR	56.0333	-3.5000	1.25
Christchurch	GBR	50.7333	-1.7500	0.96
Clacton	GBR	51.8000	1.1500	0.87
Cliffe	GBR	51.4833	0.4667	1.16
Cockenzie	GBR	55.9667	-2.9500	0.88
Colchester	GBR	51.8833	0.9167	1.12
Conwy	GBR	53.3000	-3.8500	1.05
Coryton	GBR	51.5167	0.5333	1.08
Cowes	GBR	50.7667	-1.3000	1.01
Creeksea	GBR	51.6167	0.7833	1.12
Creetown	GBR	54.9000	-4.3667	0.93
Cromarty	GBR	57.6833	-4.0333	0.96
Cromer	GBR	52.9333	1.3000	0.86
Dartmouth	GBR	50.3500	-3.5833	1.05
Dean Quarry	GBR	50.0333	-5.0833	1.14
Devonport(GBR)	GBR	50.3667	-4.1667	1.07
Dover	GBR	51.1167	1.3333	0.92
Dundee	GBR	56.4667	-2.9667	1.26
Dundrum	GBR	54.2667	-5.8500	0.98
Dunvegan	GBR	57.4500	-6.5833	1.14

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Eastham	GBR	53.3500	-2.9667	1.21
Ellesmere Port	GBR	53.2833	-2.9000	1.17
Exmouth(GBR)	GBR	50.6167	-3.4167	1.04
Falmouth	GBR	50.1667	-5.0500	1.14
Faversham	GBR	51.3333	0.9000	0.87
Fawley	GBR	50.8167	-1.3333	0.99
Felixstowe	GBR	51.9500	1.3167	0.88
Findochty	GBR	57.7000	-2.9000	1.04
Fingringhoe	GBR	51.8333	0.9667	1.06
Fishbourne	GBR	50.7333	-1.2000	1.01
Fishguard	GBR	52.0167	-4.9833	1.18
Fleetwood	GBR	53.9333	-3.0000	0.88
Folkestone	GBR	51.0833	1.2000	0.89
Fosdyke	GBR	52.8667	-0.0333	1.21
Fowey	GBR	50.3333	-4.6333	1.07
Freshwater Bay(GBR)	GBR	50.6667	-1.5167	1.03
Garlieston	GBR	54.8000	-4.3667	0.95
Garston	GBR	53.3500	-2.9000	1.13
Gillingham	GBR	51.4833	0.5500	1.09
Girvan	GBR	55.2500	-4.8667	1.26
Glasson Dock	GBR	54.0000	-2.8333	1.14
Glensanda	GBR	56.5667	-5.5333	1.06
Granton	GBR	55.9833	-3.2167	0.92
Great Oakley	GBR	51.9000	1.2500	0.88
Great Yarmouth	GBR	52.6000	1.7333	0.92
Grimsby	GBR	53.5833	-0.0667	1.01
Guernsey	GBR	49.4500	-2.5333	1.24
Gweek	GBR	50.0833	-5.2000	1.23
Hamble	GBR	50.8167	-1.3000	1.01
Hartlepool	GBR	54.7000	-1.2000	1.24
Harwich	GBR	51.9500	1.2833	0.88
Hastings(GBR)	GBR	50.8500	0.5833	0.94
Hayle	GBR	50.1833	-5.4333	1.14
Herne Bay	GBR	51.3667	1.1167	0.88
Heysham	GBR	54.0333	-2.9167	0.83
Holyhead	GBR	53.3167	-4.6167	1.19
Hound Point	GBR	56.0000	-3.3667	1.20
Hull	GBR	53.7500	-0.3000	1.17
Hunstanton	GBR	52.9333	0.5000	0.77
Ilfracombe	GBR	51.2000	-4.1167	0.98
Immingham	GBR	53.6333	-0.1833	1.01
Ince	GBR	53.2833	-2.8500	1.25
Inchkeith	GBR	56.0333	-3.1500	0.91
Inverkeithing	GBR	56.0333	-3.4000	1.20
Ipswich	GBR	52.0500	1.1667	1.10
Irvine	GBR	55.6000	-4.6833	0.95
Islay Is.	GBR	55.8000	-6.2667	1.08
Isle of Grain	GBR	51.4333	0.7000	1.23
Isle of Whithorn	GBR	54.7000	-4.3667	1.18
Jersey	GBR	49.1833	-2.1167	1.21
Jura Is.	GBR	55.8500	-6.0833	1.08

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Killingholme	GBR	53.6667	-0.2333	1.01
Killyleagh	GBR	54.4000	-5.6500	1.07
Kingsnorth	GBR	51.4167	0.6000	1.23
Kirkcaldy	GBR	56.1167	-3.1500	0.91
Kishorn	GBR	57.3833	-5.6000	1.27
Kyle of Lochalsh	GBR	57.2833	-5.7333	1.06
Kyleakin	GBR	57.2667	-5.7333	1.06
Kylesku	GBR	58.2500	-5.0167	1.21
Lamlash	GBR	55.5333	-5.0667	1.27
Lancaster	GBR	54.0000	-2.8500	1.14
Largo Bay	GBR	56.2167	-2.9333	1.24
Larne	GBR	54.8500	-5.7833	1.28
Leigh	GBR	51.5500	0.6500	0.88
Leith	GBR	55.9833	-3.1667	0.88
Littlehampton	GBR	50.8000	-0.5333	0.93
Liverpool	GBR	53.4167	-3.0000	1.26
Llanddulas	GBR	53.3000	-3.6500	0.98
Llanelli	GBR	51.6667	-4.1667	0.98
Loch Aline	GBR	56.5333	-5.7833	1.06
Loch Aline Pier	GBR	56.5333	-5.7833	1.06
Lochinver	GBR	58.1500	-5.2500	1.23
Lossiemouth	GBR	57.7167	-3.2833	0.96
Lowestoft	GBR	52.4667	1.7500	0.91
Lundy Is.	GBR	51.1667	-4.6500	1.18
Lymington	GBR	50.7667	-1.5500	0.98
Macduff	GBR	57.6667	-2.5000	0.98
Magheramorne	GBR	54.8167	-5.7667	1.29
Maldon	GBR	51.7333	0.6667	1.21
Mallaig	GBR	57.0000	-5.8333	1.08
Maryport	GBR	54.7167	-3.5000	0.89
Methil	GBR	56.1833	-3.0000	1.24
Mevagissey	GBR	50.2667	-4.7833	1.07
Millford Haven	GBR	51.7128	-5.0617	1.06
Millom	GBR	54.1833	-3.2667	0.88
Mistley	GBR	51.9500	1.0833	1.02
Mostyn	GBR	53.3167	-3.2333	0.87
Mull of Galloway	GBR	54.6333	-4.8500	1.26
Mullion Cove	GBR	50.0167	-5.2667	1.11
Nairn	GBR	57.5833	-3.8667	0.93
Newhaven	GBR	50.7833	0.0667	0.95
Newport(IOW)	GBR	50.7000	-1.2833	1.01
Nigg	GBR	57.7000	1.2833	1.15
North Killingholme	GBR	53.6500	-0.2333	1.01
North Shields	GBR	55.0167	-1.4333	1.22
North Sunderland	GBR	55.5833	-1.6500	1.20
Oakhams Ness	GBR	51.4167	0.6500	1.18
Oban	GBR	56.4167	-5.4833	1.01
Orbost	GBR	57.3833	-6.5667	1.09
Otterham Quay	GBR	51.3833	0.6333	1.09
Oulton Broad	GBR	52.4833	1.7333	0.92
Padstow	GBR	50.5500	-4.9333	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Par	GBR	50.3500	-4.7000	1.06
Paull	GBR	53.7167	-0.2167	1.01
Pembroke	GBR	51.6928	-4.9506	1.17
Penmaenmawr	GBR	53.2667	-3.9500	1.05
Penryn	GBR	50.1667	-5.1000	1.20
Plymouth	GBR	50.3667	-4.1833	1.07
Point Lynas	GBR	53.4167	-4.2833	1.16
Poole	GBR	50.7167	-1.9833	1.05
Port Askaig	GBR	55.8500	-6.1000	1.08
Port Penrhyn	GBR	53.2333	-4.1000	1.11
Portavadie	GBR	55.8667	-5.3000	0.99
Portbury	GBR	51.5000	-2.7333	0.91
Porthleven	GBR	50.0833	-5.3167	1.11
Porthmadog	GBR	52.9167	-4.1333	0.94
Porthoustock Quarry	GBR	50.0500	-5.0667	1.14
Portishead	GBR	51.4833	-2.7667	0.91
Portland(GBR)	GBR	50.5667	-2.4333	1.02
Portnockie	GBR	57.7000	-2.8667	1.04
Portpatrick	GBR	54.8500	-5.1167	1.28
Portrush	GBR	55.2167	-6.6667	1.01
Queenborough	GBR	51.4167	0.7333	1.19
Rainham(Kent)	GBR	51.3833	0.6167	1.09
Ramsgate	GBR	51.3333	1.4167	0.90
Redcar	GBR	54.6167	-1.0667	1.24
Richborough	GBR	51.3000	1.3500	0.90
Rochford	GBR	51.5833	0.7333	1.26
Rosyth	GBR	56.0167	-3.4500	1.26
Ryde	GBR	50.7333	-1.1500	1.02
Rye	GBR	50.9333	0.7667	1.05
Salcombe	GBR	50.2167	-3.7833	1.29
Salt End	GBR	53.7333	-0.2333	1.04
Sark	GBR	49.4333	-2.3667	1.23
Scarborough(GBR)	GBR	54.2833	-0.3833	1.07
Scrabster	GBR	58.6167	-3.5333	1.07
Seaham	GBR	54.8333	-1.3167	1.23
Seaton Sluice	GBR	55.0833	-1.4667	1.22
Sheerness	GBR	51.4333	0.7333	1.11
Shell Haven	GBR	51.5000	0.5167	1.09
Shoreham	GBR	50.8333	-0.2500	0.93
Silloth	GBR	54.8667	-3.4000	0.90
Sizewell	GBR	52.2167	1.6000	0.89
Snape Bridge	GBR	52.1500	1.5000	0.89
South Killingholme	GBR	53.6333	-0.2000	1.01
South Shields	GBR	55.0000	-1.4333	1.22
Southampton	GBR	50.9000	-1.4000	1.10
Southend	GBR	51.5333	0.7167	0.90
St. Davids	GBR	56.0333	-3.3667	1.20
St. Helier	GBR	49.1833	-2.1167	1.21
St. Ives	GBR	50.2167	-5.4833	1.14
St. Monans	GBR	56.2000	-2.7667	1.27
St. Peter Port	GBR	49.4500	-2.5333	1.24

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Stanlow	GBR	53.2833	-2.8667	1.25
Strangford	GBR	54.3833	-5.6000	1.04
Stranraer	GBR	54.9167	-5.0333	1.28
Sullom Voe	GBR	60.4500	-1.3333	1.19
Sunderland	GBR	54.9167	-1.3667	1.23
Swansea	GBR	51.6167	-3.9333	0.97
Tayport	GBR	56.4500	-2.8833	1.26
Teignmouth	GBR	50.5500	-3.5000	1.02
Tenby	GBR	51.7000	-4.7167	1.17
Thamesport	GBR	51.4333	0.7000	1.23
Thurso	GBR	58.5833	-3.5167	1.07
Tobermory(GBR)	GBR	56.6167	-6.0500	1.06
Torquay	GBR	50.4500	-3.5333	1.05
Troon	GBR	55.5500	-4.6833	0.95
Truro	GBR	50.1667	-5.0333	1.14
Tyne	GBR	55.0000	-1.4333	1.22
Ullapool	GBR	57.9000	-5.1667	1.19
Walton Bay	GBR	51.4667	-2.8167	0.91
Walton on the Naze	GBR	51.8500	1.2667	0.88
Warkworth	GBR	55.3333	-1.5667	1.21
Warrenpoint	GBR	54.1000	-6.2500	1.18
Watchet	GBR	51.1833	-3.3333	0.92
Wells	GBR	52.9667	0.8500	0.84
Weymouth	GBR	50.6167	-2.4500	1.02
Whitby	GBR	54.4833	-0.6167	1.07
Whitehaven	GBR	54.5500	-3.5833	0.90
Whitstable	GBR	51.3667	1.0333	0.88
Wigtown	GBR	54.8667	-4.4333	0.93
Workington	GBR	54.6500	-3.5667	0.90
Yarmouth(GBR)	GBR	50.7000	-1.5000	0.98
Jablanac	HRV	44.7000	14.8667	0.69
Kraljevica	HRV	45.2833	14.5667	1.13
Makarska	HRV	43.2833	17.0167	0.90
Maslenica	HRV	44.2167	15.5333	0.82
Omisalj	HRV	45.2167	14.5500	1.13
Opatija	HRV	45.3333	14.3167	0.84
Rijeka	HRV	45.3167	14.4333	0.91
Senj	HRV	45.0000	14.8833	0.81
Sveti Juraj	HRV	44.9333	14.9167	0.81
Velika Stinica	HRV	44.7167	14.8667	0.69
Castletown	IOM	54.0667	-4.6500	1.21
Douglas	IOM	54.1500	-4.4667	1.16
Peel	IOM	54.2333	-4.7000	1.22
Port St. Mary	IOM	54.0667	-4.7333	1.21
Ramsey	IOM	54.3167	-4.3833	1.17
Arklow	IRL	52.8000	-6.1500	1.29
Ballylongford	IRL	52.5500	-9.4667	1.29
Bantry	IRL	51.7000	-9.4667	1.14
Buncrana	IRL	55.1333	-7.4500	1.05
Castletownbere	IRL	51.6500	-9.9000	1.20
Cobh	IRL	51.8500	-8.2833	1.05



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Courtmacsherry	IRL	51.6333	-8.7167	1.26
Dingle	IRL	52.1333	-10.2667	1.16
Dundalk	IRL	54.0000	-6.3833	1.15
Dungarvan	IRL	52.0833	-7.6000	1.05
Fenit	IRL	52.2667	-9.8500	1.10
Galway	IRL	53.2667	-9.0500	1.03
Glengariff	IRL	51.7500	-9.5333	1.20
Greenore	IRL	54.0333	-6.1333	0.96
Killala	IRL	54.2167	-9.2167	1.13
Killybegs	IRL	54.6333	-8.4333	1.03
Passage West	IRL	51.8667	-8.3333	1.17
Rathmullen	IRL	55.1000	-7.5333	1.06
Ringaskiddy	IRL	51.8333	-8.3167	1.10
Rosslare	IRL	52.2500	-6.3333	1.28
Skull	IRL	51.5167	-9.5333	1.15
Spiddle	IRL	53.2500	-9.3000	1.03
Ventry	IRL	52.1167	-10.2000	1.16
Waterford	IRL	52.1167	-6.9167	1.11
Wexford	IRL	52.3333	-6.4167	1.28
Whiddy Is.	IRL	51.6833	-9.5333	1.10
Whitegate	IRL	51.8333	-8.2500	1.08
Youghal	IRL	51.9333	-7.8333	1.10
Dyrholaey	ISL	63.4000	-19.1333	1.24
Eyrarbakki	ISL	63.8667	-21.1500	1.26
Gardabaer	ISL	64.0667	-21.9333	1.27
Grindavik	ISL	63.8333	-22.4333	1.20
Hafnarfjordur	ISL	64.0667	-21.9167	1.27
Kopavogur	ISL	64.1000	-21.8833	1.27
Korsnes(ISL)	ISL	64.1167	-21.9000	1.27
Reykjavik	ISL	64.1497	-21.9475	1.27
Stokkseyri	ISL	63.8333	-21.0833	1.19
Portofino	ITA	44.3000	9.2333	1.23
San Remo	ITA	43.8167	7.7833	1.23
Santa Margherita(ITA)	ITA	44.3333	9.2167	1.23
Abashiri	JPN	44.0167	144.2833	0.64
Akita	JPN	39.7500	140.0667	1.23
Akkeshi	JPN	43.0500	144.8500	0.19
Aomori	JPN	40.8167	140.7500	0.86
Esashi	JPN	44.9333	142.6000	0.18
Fukura	JPN	39.0667	139.8833	1.06
Funakawa	JPN	39.8833	139.8667	1.22
Hachinohe	JPN	40.5333	141.5333	0.93
Hakodate	JPN	41.7833	140.7167	0.75
Haramichi	JPN	37.6333	140.9667	1.28
Hirono	JPN	37.2333	141.0167	1.10
Ishikari	JPN	43.2500	141.3500	0.75
Ishikariwan Shinko	JPN	43.2167	141.3000	0.55
Iwanai	JPN	42.9833	140.5167	0.36
Kamaishi	JPN	39.2667	141.9000	0.98
Kawauchi	JPN	41.1667	141.0000	0.81
Kesennuma	JPN	38.8667	141.6000	1.05

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kuji	JPN	40.1667	141.7833	0.83
Kushiro	JPN	42.9833	144.3667	0.20
Mashike	JPN	43.8667	141.5167	0.52
Miyako	JPN	39.6333	141.9667	0.90
Monbetsu	JPN	44.3500	143.3667	0.62
Mori	JPN	42.1167	140.5833	0.53
Muroran	JPN	42.3500	140.9500	0.47
Mutsu Ogawara	JPN	40.9500	141.4167	0.99
Nemuro	JPN	43.3333	145.5833	0.75
Nonai	JPN	40.8333	140.8167	0.86
Noshiro	JPN	40.2167	140.0000	1.15
Ofunato	JPN	38.9833	141.7500	1.03
Oginohama	JPN	38.3833	141.3667	1.16
Okuma	JPN	37.3833	140.9833	1.10
Ominato	JPN	41.2333	141.1833	0.73
Onagawa	JPN	38.4500	141.4667	1.16
Otaru	JPN	43.2000	141.0167	0.56
Otsuchi	JPN	39.3500	141.9000	0.92
Rumoi	JPN	43.9500	141.6333	0.52
Sekinehama	JPN	41.3667	141.2167	0.59
Shiriyu	JPN	41.4000	141.4667	0.60
Shizuura	JPN	41.4833	140.0167	0.78
Tamagawa	JPN	40.0833	141.8333	0.83
Tokachi	JPN	42.3000	143.3333	0.50
Tomakomai	JPN	42.6333	141.6333	0.47
Tomioka	JPN	37.3333	141.0000	1.10
Wakkanai	JPN	45.4167	141.7000	0.46
Wanishi	JPN	42.3333	141.0000	0.49
Yoichi	JPN	43.2167	140.7833	0.51
Daepo	KOR	38.1667	128.6167	1.00
Daesan	KOR	37.0167	126.4167	0.88
Gojeong	KOR	36.3000	126.4500	1.13
Incheon	KOR	37.4667	126.6000	0.80
Sokcho	KOR	38.2333	128.5500	1.25
Yeonpyung	KOR	37.6000	125.7167	0.99
Budva	MTG	42.2833	18.8500	1.25
Risan	MTG	42.5167	18.7000	1.09
Aalsmeer	NLD	52.2500	4.7500	1.10
Alkmaar	NLD	52.6333	4.7167	0.83
Almelo	NLD	52.3667	6.6333	0.64
Almere-Haven	NLD	52.3333	5.2167	0.59
Alphen aan den Rijn	NLD	52.1333	4.6333	0.98
Ameland	NLD	53.4500	5.6333	0.61
Appingedam	NLD	53.3167	6.8500	0.77
Balk	NLD	52.9000	5.5667	0.58
Beverwijk	NLD	52.4833	4.6333	1.14
Borssele	NLD	51.4167	3.7333	1.15
Breskens	NLD	51.4000	3.5667	0.80
Delft	NLD	52.0167	4.3667	0.93
Delfzijl	NLD	53.3333	6.9333	0.54
Den Helder	NLD	52.9667	4.7833	0.62

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Den Oever	NLD	52.9167	5.0167	0.60
Deventer	NLD	52.2500	6.1500	0.65
Doesburg	NLD	52.0167	6.1333	0.65
Doetinchem	NLD	51.9667	6.2833	0.67
Domburg	NLD	51.5667	3.5000	0.74
Eemshaven	NLD	53.4500	6.8333	0.54
Europoort	NLD	51.9500	4.0833	0.67
Farmsum	NLD	53.3167	6.9333	0.54
Flushing	NLD	51.4500	3.5833	0.80
Flushing East	NLD	51.4500	3.6667	1.07
Foxhol	NLD	53.1667	6.7167	1.14
Franeker	NLD	53.1833	5.5500	0.58
Gouda	NLD	52.0167	4.7000	1.25
Halfweg	NLD	52.3833	4.7500	0.80
Harlingen	NLD	53.1833	5.4167	0.59
Hasselt	NLD	52.5833	6.0833	0.65
Heemstede	NLD	52.3500	4.6000	0.80
Hengelo	NLD	52.2667	6.7667	0.64
Hillegom	NLD	52.3000	4.5833	0.80
Hoogezand	NLD	53.1667	6.7500	1.14
Hook of Holland	NLD	51.9833	4.1167	0.67
Kaag	NLD	52.2000	4.5333	0.82
Kampen	NLD	52.5833	5.8000	0.57
Katwijk aan Zee	NLD	52.2000	4.4000	0.65
Kootstertille	NLD	53.2167	6.0833	1.15
Lauwersoog	NLD	53.4000	6.2167	0.74
Leeuwarden	NLD	53.2000	5.7833	1.15
Leiden	NLD	52.1500	4.4667	0.84
Leiderdorp	NLD	52.1333	4.5167	0.82
Lelystad	NLD	52.5000	5.4333	0.58
Lemmer	NLD	52.8500	5.6833	0.58
Lisserbroek	NLD	52.2667	4.5667	0.80
Lochem	NLD	52.1667	6.4167	0.66
Loppersum	NLD	53.3167	6.7333	0.90
Maarssen	NLD	52.1667	5.1667	1.16
Makkum	NLD	53.0667	5.4000	0.59
Meppel	NLD	52.7000	6.2000	0.63
Middelburg	NLD	51.5000	3.6167	0.94
Midwolda	NLD	53.1833	6.9833	0.97
Monnickendam	NLD	52.4667	5.0333	0.59
Muiden	NLD	52.3167	5.0667	0.59
Nijkerk	NLD	52.2167	5.4833	0.66
Oostmahorn	NLD	53.3833	6.1667	0.63
Oostvoorne	NLD	51.9167	4.0833	0.67
Pijnacker	NLD	52.0000	4.4167	0.93
Schagen	NLD	52.7833	4.7853	0.72
Scheveningen	NLD	52.1000	4.2667	0.65
Schiermonnikoog	NLD	53.4833	6.1500	0.60
'sGravenhage	NLD	52.0833	4.3000	0.65
Siddeburen	NLD	53.2500	6.8667	0.84
Sneek	NLD	53.0333	5.6667	0.58

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Spaarndam	NLD	52.4167	4.6833	0.73
Staveren	NLD	52.8667	5.3500	0.58
Steenwijk	NLD	52.7833	6.1167	0.64
Stroobos	NLD	53.2333	6.2167	1.13
Terschelling	NLD	53.3667	5.2167	0.65
Texel	NLD	53.1833	4.8500	0.65
Uithoorn	NLD	52.2333	4.8333	1.10
Urk	NLD	52.6667	5.6000	0.57
Velsen	NLD	52.4667	4.6333	1.13
Vlissingen	NLD	52.4500	4.5833	0.86
Wagenborgen	NLD	53.2500	6.9333	0.83
Warmond	NLD	52.1833	4.4833	0.82
Waterhuizen	NLD	53.1833	6.6333	1.17
West Grafdijk	NLD	52.5500	4.7833	0.87
Westerbroek	NLD	53.1833	6.6833	1.17
Winschoten	NLD	53.1333	7.0167	0.99
Workum	NLD	52.9833	5.4333	0.59
Woubrugge	NLD	52.1667	4.6333	0.98
Woudsend	NLD	52.9333	5.6167	0.58
Ymuiden	NLD	52.4500	4.5833	0.63
Zandvoort	NLD	52.3667	4.5333	0.63
Zoutkamp	NLD	53.3333	6.3000	1.08
Zuidbroek	NLD	53.1667	6.8667	1.03
Zutphen	NLD	52.1333	6.2000	0.66
Zwartsluis	NLD	52.6333	6.0667	0.65
Zwolle	NLD	52.5167	6.1167	0.65
Aaheim	NOR	62.0500	5.5167	1.29
Aakrehamn	NOR	59.2500	5.1667	0.93
Aalefjaer	NOR	58.2333	8.0333	1.11
Aalesund	NOR	62.4667	6.1667	1.01
Abelsnes	NOR	58.2333	6.6500	1.18
Abelvaer	NOR	64.7333	11.1667	1.18
Agnefest	NOR	58.1167	7.0500	1.17
Arendal	NOR	58.4667	8.7667	0.73
Asvall	NOR	59.0167	9.6000	0.32
Aukra	NOR	62.7833	6.9667	1.23
Austevoll	NOR	60.1000	5.2500	1.17
Avaldsnes	NOR	59.3500	5.2667	0.91
Averoy	NOR	63.1167	7.6667	1.20
Ballstad	NOR	68.0667	13.5333	1.04
Bamble	NOR	59.0167	9.6667	0.32
Bekkjarvik	NOR	60.0000	5.2167	0.99
Bjugn	NOR	63.7667	9.7333	1.27
Bodo	NOR	67.2833	14.3833	1.29
Bokn	NOR	59.2167	5.4500	0.93
Borg Hbr.	NOR	59.2000	10.9500	0.38
Bovagen	NOR	60.7000	4.9333	1.04
Brattvag	NOR	62.6000	6.4500	1.22
Brevik	NOR	59.0500	9.7167	1.10
Bronnoysund	NOR	65.4667	12.2167	1.21
Dalen	NOR	59.0667	9.7000	1.10

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Drammen	NOR	59.7333	10.2333	0.38
Drobak	NOR	59.6500	10.6333	0.40
Dryna	NOR	62.6333	6.5333	0.99
Egersund	NOR	58.4500	6.0000	0.89
Elnesvagen	NOR	62.8500	7.1500	1.05
Engene	NOR	59.6833	10.5500	0.33
Espevaer	NOR	59.5833	5.1500	0.94
Espevik	NOR	59.3333	5.6833	1.20
Eydehamn	NOR	58.5000	8.8833	0.42
Fagerstrand	NOR	59.7333	10.6000	0.33
Farsund	NOR	58.1000	6.8167	1.19
Fedje	NOR	60.7500	4.7333	1.05
Festoy	NOR	62.3667	6.3333	1.25
Fevag	NOR	63.6667	9.8333	1.17
Fiskarstranda	NOR	62.4333	6.2667	1.13
Floro	NOR	61.6000	5.0333	0.99
Fonnes	NOR	60.8000	4.9833	0.84
Foresvik	NOR	59.2167	5.4333	0.93
Fosen	NOR	59.3167	5.3667	1.01
Fosnavaag	NOR	62.3500	5.6333	1.11
Fredrikstad	NOR	59.2000	10.9667	0.38
Gjevingstangholmen	NOR	58.6500	9.1333	0.60
Gravdal	NOR	68.1167	13.5500	1.04
Greaker	NOR	59.2667	11.0333	0.36
Grimstad	NOR	58.3333	8.6000	0.39
Gronsfjord	NOR	58.0167	7.0333	0.58
Gursken	NOR	62.2333	5.5500	1.11
Haavik	NOR	59.3167	5.3167	0.99
Halden	NOR	59.1167	11.3667	0.37
Halsvik	NOR	60.8333	5.0833	1.24
Halvorshavn	NOR	59.5833	10.6167	0.40
Hareid	NOR	62.3667	6.0333	1.09
Haugesund	NOR	59.4167	5.2667	0.84
Haugsholmen	NOR	62.1667	5.4000	1.09
Hellestrand	NOR	61.3333	5.1167	1.28
Helvig	NOR	58.1000	6.7500	1.19
Hestvika	NOR	63.5667	9.1667	1.25
Hilleren	NOR	60.1667	5.0833	0.99
Hitra	NOR	63.4333	8.4167	1.23
Hjorungavaag	NOR	62.3500	6.0833	1.09
Holm	NOR	59.1000	11.3833	0.37
Holmestrand	NOR	59.5333	10.2667	0.37
Hommelsto	NOR	65.5333	12.3333	1.24
Horten	NOR	59.4167	10.5000	0.33
Hurum	NOR	59.6167	10.4500	0.36
Husoy	NOR	61.0167	4.7000	1.06
Jelsa	NOR	59.3333	6.0333	0.73
Kaarsto	NOR	59.2667	5.5333	0.75
Kalvaag	NOR	61.7667	4.8833	1.09
Kambo	NOR	59.4833	10.7000	0.38
Kilsund	NOR	58.5500	8.9833	0.60

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kjelstraum	NOR	60.8000	4.9500	1.05
Kollsnes	NOR	60.5667	4.8333	1.04
Kolvereid	NOR	64.8833	11.5833	1.19
Kopervik	NOR	59.2833	5.3000	1.08
Kragero	NOR	58.8667	9.4167	0.46
Kristiansand	NOR	58.1500	8.0000	0.52
Kristiansund	NOR	63.1167	7.7333	1.21
Langesund	NOR	59.0000	9.7500	0.32
Langevag	NOR	62.4333	6.2500	1.13
Larkollen	NOR	59.3167	10.6833	0.39
Larvik	NOR	59.0500	10.0333	0.34
Lauvsnes	NOR	64.5000	10.9000	1.18
Leirpollen	NOR	70.3833	25.5167	1.24
Lillesand	NOR	58.2500	8.3833	0.44
Lindesnes	NOR	57.9833	7.0500	0.55
Lysaker	NOR	59.9167	10.6333	0.40
Lysoysund	NOR	63.8833	9.8833	1.21
Magero	NOR	59.1500	10.4333	0.55
Mandal	NOR	58.0333	7.4667	0.57
Mastrevik	NOR	60.8000	4.9667	1.05
Melbu	NOR	68.5000	14.8000	1.19
Melsomvik	NOR	59.2167	10.3500	0.55
Midsund	NOR	62.7000	6.7000	1.01
Molde	NOR	62.7333	7.1667	1.14
Moltustranda	NOR	62.3000	5.6500	1.11
Mongstad	NOR	60.8167	5.0333	1.27
More	NOR	62.4667	6.1500	1.01
Moss	NOR	59.4333	10.6667	0.39
Oslo	NOR	59.9000	10.7167	0.38
Ottersoy	NOR	64.8500	11.2833	1.18
Rafnes	NOR	59.1000	9.6000	0.93
Ramsvika	NOR	62.9333	7.4000	1.18
Randaberg	NOR	59.0000	5.6333	0.91
Raudeberg	NOR	61.9833	5.1000	1.11
Risor	NOR	58.7167	9.2333	0.62
Rorvik	NOR	64.8667	11.2667	1.18
Rosfjord	NOR	58.0500	6.9833	0.64
Ryvingen	NOR	57.9667	7.5000	0.79
Saetrepollen	NOR	59.6833	10.5333	0.33
Salthella	NOR	60.0000	5.1167	0.99
Sande	NOR	59.5833	10.2500	0.37
Sandefjord	NOR	59.1333	10.2333	0.55
Sarpsborg	NOR	59.2667	11.1000	0.36
Selje	NOR	62.0500	5.3667	1.09
Skudeneshavn	NOR	59.1333	5.2667	0.93
Slagen	NOR	59.3167	10.5333	0.39
Slemmestad	NOR	59.7833	10.5000	0.38
Sogne	NOR	58.0833	7.7833	0.53
Sola	NOR	58.9167	5.5667	0.76
Solevaag	NOR	62.4000	6.3333	1.25
Solumstrand	NOR	59.7167	10.2833	0.38

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Sondeled	NOR	58.7167	9.2000	0.60
Sovik	NOR	65.9167	12.4333	1.26
Spjelkavik	NOR	62.4500	6.3667	1.25
Stavanger	NOR	58.9667	5.7333	0.75
Stokksund	NOR	64.0333	10.0333	1.18
Stokmarknes	NOR	68.5667	14.9167	1.09
Storasund	NOR	59.3833	5.2667	0.84
Straumen	NOR	63.3333	8.1000	1.23
Sture	NOR	60.6167	4.8500	1.04
Svelvik	NOR	59.6167	10.4167	0.36
Svolvaer	NOR	68.2333	14.5667	1.09
Tau	NOR	59.0667	5.9333	0.89
Telavag	NOR	60.2500	5.0000	0.79
Tjeldbergodden	NOR	63.4167	8.7000	1.29
Tjorvaag	NOR	62.2833	5.7500	1.10
Tofte	NOR	59.5500	10.5833	0.40
Tomrefjord	NOR	62.6333	6.6833	1.17
Tonsberg	NOR	59.2667	10.4167	0.37
Trosvik	NOR	59.0500	9.7000	1.20
Tvedestrand	NOR	58.6333	8.9333	0.36
Ulsteinvik	NOR	62.3500	5.8500	1.10
Uthaug	NOR	63.7333	9.6000	1.22
Valloy	NOR	59.2667	10.5000	0.36
Vats	NOR	59.4833	5.7500	0.81
Vigsnes	NOR	59.4000	5.1333	0.93
Voksa	NOR	62.2333	5.4500	1.12
Christchurch	NZL	-43.5500	172.6667	1.16
Picton(NZL)	NZL	-41.2667	174.0000	1.20
Port Chalmers	NZL	-45.8167	170.6167	1.18
Tarakohe	NZL	-40.8500	172.9000	1.03
Chongjin	PRK	41.7667	129.8167	0.70
Haeju	PRK	38.0000	125.7000	1.21
Hungnam	PRK	39.8000	127.6667	1.01
Kosong(PRK)	PRK	38.6000	128.3500	1.24
Rajin	PRK	42.1833	130.3167	0.28
Sinpo	PRK	40.0167	128.1667	0.76
Songjin	PRK	40.6667	129.2000	0.71
Wonsan	PRK	39.1667	127.4333	0.99
Agnevo	RUS	50.5167	142.0667	0.76
Aleksandrovsk-Sakhalinskiy	RUS	50.8833	142.1167	1.26
Amgu	RUS	45.8167	137.6667	0.34
Archangel	RUS	64.5333	40.5000	0.83
Bolshoy Kamen	RUS	43.1333	132.3333	0.53
Boshnyakovo	RUS	49.5833	142.2000	0.86
Burevestnik	RUS	44.9500	147.6167	0.71
De Kastri	RUS	51.4667	140.7833	0.70
Kamenka	RUS	65.8833	44.1833	0.91
Kandalaksha	RUS	67.1333	32.4333	1.04
Khasan	RUS	42.4667	130.8000	0.27
Khoe	RUS	51.2833	142.1667	0.63
Kholmsk	RUS	47.0500	142.0500	0.51

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Korsakov	RUS	46.6667	142.7500	0.34
Kovda	RUS	66.6833	32.8667	0.96
Krasnogorsk	RUS	48.3667	142.1500	0.56
Lazarev	RUS	52.2333	141.5167	0.57
Livadiya	RUS	42.8500	132.7000	0.52
Mezen	RUS	65.8500	44.2500	0.91
Moryak-Rybolov	RUS	43.3333	134.7833	0.42
Moskalvo	RUS	53.5833	142.5000	0.71
Nakhodka	RUS	42.8000	132.9000	0.53
Nelma	RUS	47.6333	139.1667	0.59
Nevelsk	RUS	46.6667	141.8500	0.40
Nogliki	RUS	51.8333	143.2000	1.27
Okhotsk	RUS	59.3500	143.1667	1.12
Olga	RUS	43.7667	135.2333	0.43
Onega	RUS	63.9167	38.1000	0.67
Ossora	RUS	59.2667	163.1333	1.28
Petropavlovsk-Kamchatskiy	RUS	53.0167	158.6333	0.95
Plastun	RUS	44.7167	136.2500	0.47
Podyapolskoye	RUS	42.9333	132.3167	0.37
Pogranichnoye	RUS	50.3667	143.7167	0.75
Poronaysk	RUS	49.2167	143.1167	0.91
Posyet	RUS	42.6333	130.8000	0.66
Rudnaya Pristan	RUS	44.3000	135.8500	0.31
Shakhtersk	RUS	49.1500	142.0500	0.61
Siziman	RUS	50.7500	140.4167	0.70
Slavyanka	RUS	42.9167	131.4667	0.57
Sovetskaya Gavan	RUS	49.0333	140.3333	0.54
Svetlaya	RUS	46.5333	138.3333	0.48
Tangi	RUS	51.2333	142.1667	0.63
Uglegorsk	RUS	49.0667	142.0167	0.61
Umba	RUS	66.6667	34.3000	0.97
Ust-Penzhino	RUS	62.5000	165.1500	1.25
Vanino	RUS	49.0833	140.2667	0.54
Vitino	RUS	66.9000	32.3333	1.05
Vladivostok	RUS	43.1167	131.8833	0.40
Vostochnyy	RUS	42.7500	133.0667	0.51
Yasnomorskiy	RUS	46.7500	141.9000	0.38
Yuzhno Kurilsk	RUS	44.0500	145.8000	0.81
Zarubino	RUS	42.6667	131.1000	0.66
St. Pierre(SPM)	SPM	46.8167	-56.1667	1.05
St-Pierre et Miquelon	SPM	46.8167	-56.1667	1.16
Agnesberg	SWE	57.7833	12.0000	0.67
Angelholm	SWE	56.2500	12.8667	1.04
Backviken	SWE	55.9000	12.7167	1.21
Bastad	SWE	56.4167	12.8333	1.09
Bohus	SWE	57.8500	12.0333	0.65
Brofjorden	SWE	58.3333	11.3833	0.49
Donso	SWE	57.5833	11.8000	0.72
Edshultshall	SWE	58.1167	11.4667	0.60
Falkenberg	SWE	56.8833	12.5000	1.03
Fjallbacka	SWE	58.6000	11.2833	0.41



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Gota(SWE)	SWE	58.1000	12.1500	0.65
Gothenburg	SWE	57.7000	11.9500	0.67
Grebbestad	SWE	58.6833	11.2500	0.40
Gustavsberg	SWE	58.3333	11.9000	0.46
Halmstad	SWE	56.6667	12.8500	1.03
Helsingborg	SWE	56.0500	12.6833	1.18
Henan	SWE	58.2333	11.6667	0.48
Hoganas	SWE	56.2000	12.5500	1.11
Hunnebostrand	SWE	58.4333	11.3000	0.44
Klagshamn	SWE	55.5167	12.8833	1.19
Kopparverkshamn	SWE	56.0167	12.7167	1.18
Kungsbacka	SWE	57.4833	12.0833	0.68
Kungshamn	SWE	58.3667	11.2333	0.44
Landskrona	SWE	55.8667	12.8333	1.19
Lilla Edet	SWE	58.1167	12.1167	0.65
Limhamn	SWE	55.5833	12.9333	1.22
Lodose	SWE	58.0333	12.1500	0.65
Lomma	SWE	55.6833	13.0667	1.18
Lysekil	SWE	58.2667	11.4333	0.49
Malmo	SWE	55.6167	13.0000	1.19
Marstrand	SWE	57.8833	11.5833	0.62
Mossholmen	SWE	57.9500	11.5667	0.62
Munkedalhamn	SWE	58.4333	11.6667	0.46
Nol	SWE	57.9333	12.1333	0.65
Ockero	SWE	57.7167	11.6333	0.64
Raa	SWE	55.9833	12.7500	1.19
Ramsvik	SWE	58.4333	11.2667	0.44
Ronnang	SWE	58.0833	11.6667	0.49
Roro	SWE	57.7667	11.6167	0.65
Ryxo	SWE	58.3667	11.4333	0.47
Skarhamn	SWE	57.9833	11.5500	0.57
Skredsvik	SWE	58.3833	11.6500	0.46
Smogen	SWE	58.3500	11.2333	0.44
Stallbacka	SWE	58.3000	12.3000	0.63
Stensjo	SWE	58.4000	11.4000	0.47
Stenungsund	SWE	58.0833	11.8167	0.54
Stromstad	SWE	58.9333	11.1667	0.40
Surte	SWE	57.8333	12.0167	0.66
Traslovslage	SWE	57.0500	12.2667	0.89
Trollhattan	SWE	58.2833	12.2833	0.63
Uddevalla	SWE	58.3500	11.9167	0.46
Vanersborg	SWE	58.3833	12.3333	0.63
Varberg	SWE	57.1000	12.2500	0.89
Vargon	SWE	58.3500	12.3833	0.63
Vasterlanda	SWE	58.1000	12.1167	0.65
Wallhamn	SWE	58.0000	11.7000	0.56
Erdek	TUR	40.4000	27.7833	1.22
Dneprobugskiy	UKR	46.7500	31.9167	1.22
Kherson	UKR	46.6167	32.6000	1.23
Nikolayev	UKR	46.9667	31.9667	1.28
Ochakov	UKR	46.6000	31.5500	1.23

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Oktyabrsk	UKR	46.8333	31.9500	1.22
Skadovsk	UKR	46.1000	32.9167	1.13
Yalta	UKR	44.5000	34.1667	1.03
Yuzhnyy	UKR	46.6000	31.0167	1.28
Afognak	USA	58.0000	-152.8333	0.93
Anchorage	USA	61.2167	-149.8833	0.81
Angoon	USA	57.4833	-134.5667	0.98
Astoria	USA	46.1833	-123.8333	1.00
Bar Hbr.	USA	44.3833	-68.2000	0.39
Bartlett Cove	USA	58.4667	-135.8167	0.71
Bayway	USA	40.6300	-74.2000	0.62
Bellingham	USA	48.7500	-122.5000	0.83
Block Is.	USA	41.2333	-71.5833	0.83
Boothbay	USA	43.8333	-69.6500	0.56
Bridgeport	USA	41.1500	-73.1833	0.50
Bristol(USA)	USA	41.6667	-71.2667	1.29
Camden(ME USA)	USA	44.2167	-69.0667	0.40
Castine	USA	44.3833	-68.8333	1.19
Castle Is.	USA	56.6500	-133.1667	0.91
Chenega	USA	60.2667	-148.0667	1.10
Cherry Point	USA	48.8667	-122.7500	0.84
Chignik	USA	56.3000	-158.4000	1.20
City Is.	USA	40.8500	-73.7833	1.07
Clinton	USA	41.2667	-72.5333	0.85
Cold Bay	USA	55.1833	-162.7000	1.17
Cordova	USA	60.5500	-145.7667	1.17
Craig	USA	55.4667	-133.1500	0.98
Davisville	USA	41.6167	-71.4000	1.11
East Boothbay	USA	43.8500	-69.5833	0.48
Edmonds	USA	47.8167	-122.3667	0.94
Everett(WA)	USA	47.9833	-122.2167	0.88
Ferndale	USA	48.8333	-122.7167	0.92
Gloucester(MA USA)	USA	42.6167	-70.6667	0.47
Greenport	USA	41.1000	-72.3500	0.55
Gustavus	USA	58.4000	-135.7333	0.71
Haines	USA	59.2333	-135.4500	0.72
Hawk Inlet	USA	58.1000	-134.7333	1.02
Hingham	USA	42.2333	-70.8833	1.02
Hoonah	USA	58.1167	-135.4333	1.27
Icy Strait Point	USA	58.1000	-135.6000	0.95
Jamestown(RI USA)	USA	41.5000	-71.3667	0.89
Johnstown Harbour	USA	44.7098	-75.4676	0.79
Jonesport	USA	44.5500	-67.6167	1.05
Juneau	USA	58.3000	-134.4167	1.14
Kenai	USA	60.5500	-151.2667	1.09
Ketchikan	USA	55.3500	-131.6500	0.82
King Cove	USA	55.0333	-162.3167	1.27
Klawock	USA	55.5500	-133.1000	0.91
Longview	USA	46.1333	-122.9333	0.82
Mamaroneck	USA	40.9333	-73.7333	0.84
Melville	USA	41.5833	-71.2833	1.13

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Mukilteo	USA	47.9500	-122.3000	0.88
Naknek	USA	58.7333	-157.0333	0.99
Nantucket Is.	USA	41.2833	-70.1000	0.55
New Bedford	USA	41.6333	-70.9167	0.58
New Haven	USA	41.2500	-72.9000	0.89
Newport(RI)	USA	41.4833	-71.3333	0.89
Nikishka	USA	60.7333	-151.3000	1.25
Northeast Hbr.(USA)	USA	44.3000	-68.2833	0.37
Northport	USA	40.9333	-73.3667	1.00
Northville	USA	40.9833	-72.6500	0.55
Orca	USA	60.5833	-145.7167	1.26
Oyster Bay	USA	40.8833	-73.5167	1.03
Patchogue	USA	40.7667	-73.0167	1.06
Perth Amboy	USA	40.5036	-74.2733	0.65
Petersburg	USA	56.8167	-132.9500	0.88
Plymouth(MA USA)	USA	41.9500	-70.6667	0.67
Point Judith	USA	41.3667	-71.4833	0.47
Point Wells	USA	47.7833	-122.4000	0.94
Port Angeles	USA	48.1333	-123.4167	0.74
Port Chester	USA	40.9833	-73.6500	1.03
Port Gamble	USA	47.8667	-122.5833	0.93
Port Lions	USA	57.8667	-152.8833	0.93
Port Townsend	USA	48.1167	-122.7500	0.95
Portland(ME USA)	USA	43.6500	-70.2333	0.58
Portsmouth(NH USA)	USA	43.0667	-70.7000	0.56
Portsmouth(RI USA)	USA	41.6000	-71.2333	1.12
Provincetown	USA	42.0500	-70.1833	0.50
Rainier	USA	46.0833	-122.9333	0.82
Riverhead	USA	40.9167	-72.6667	0.57
Rockland	USA	44.1000	-69.1167	0.46
Sag Hbr.	USA	41.0167	-72.3000	0.56
Salem(MA USA)	USA	42.5167	-70.8833	0.85
Sandwich(USA)	USA	41.7667	-70.4833	0.52
Searsport	USA	44.4500	-68.9167	1.29
Seattle	USA	47.6333	-122.3333	0.95
Seldovia	USA	59.4333	-151.7167	1.18
Sesuit Hbr.	USA	41.7500	-70.1500	0.51
Seward	USA	60.1167	-149.4333	0.95
Sitka	USA	57.0500	-135.3333	1.00
South Bristol	USA	43.8500	-69.5500	0.48
Sparrow's Point	USA	39.2000	-76.4667	1.05
St. Michael(AK USA)	USA	63.4667	-162.0167	1.21
Stamford	USA	41.0167	-73.5333	0.88
Susitna	USA	61.4667	-150.5000	0.89
Tacoma	USA	47.2500	-122.4167	0.86
Tatitlek	USA	60.8500	-146.6833	0.82
Tenakee Springs	USA	57.7833	-135.2167	1.01
Tiverton(USA)	USA	41.6333	-71.2000	1.22
Togiak	USA	59.0833	-160.5000	1.12
Tolstoi Bay	USA	55.6667	-132.5167	1.27
Tyonek	USA	61.0667	-151.1500	0.97

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Valdez	USA	61.1333	-146.3500	1.15
Virginia Beach	USA	36.8500	-75.9500	1.20
Westport(WA USA)	USA	46.8833	-124.1000	1.00
Whittier	USA	60.7833	-148.6667	1.19
Wildwood	USA	38.9667	-74.8167	0.84
Willapa	USA	46.7333	-124.0667	1.00
Woods Hole	USA	41.5167	-70.6667	0.83
Wrangell	USA	56.4667	-132.3667	0.87
Yakutat	USA	59.5500	-139.7500	0.92
Yarmouth(USA)	USA	43.8000	-70.2000	1.05

*Appendix E. List of global ports that have highest environmental similarity to Dartmouth-Halifax. NIS originating from these ports have the highest potential for survival if introduced at Dartmouth-Halifax.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Baia dos Tigres	AGO	-16.5167	11.7667	0.66
Tombwa	AGO	-15.7667	11.9167	0.59
Namibe	AGO	-15.1647	12.1578	0.76
Porto Saco	AGO	-15.1333	12.1333	0.76
Lobito	AGO	-12.3536	13.5436	1.13
Cuio	AGO	-12.9833	12.9833	1.12
Cabinda	AGO	-5.5514	12.1928	1.27
Malembo	AGO	-5.3167	12.1667	1.26
Benguela	AGO	-12.5833	13.4000	1.17
Sumbe	AGO	-11.2000	13.8333	1.24
Sarande	ALB	39.8719	20.0003	0.64
Vlore	ALB	40.4556	19.4850	0.49
Shengjin	ALB	41.8150	19.5872	0.62
Durres	ALB	41.3131	19.4511	0.19
Camarones	ARG	-44.4500	-65.7000	1.20
Caleta Cordova	ARG	-45.7167	-67.3500	1.12
Mar del Plata	ARG	-38.0331	-57.5447	1.03
Necochea	ARG	-38.5753	-58.7214	1.00
Campana	ARG	-34.1567	-58.9664	1.17
Zarate	ARG	-34.0911	-59.0206	1.17
Atucha	ARG	-33.9569	-59.2511	1.16
Lima(ARG)	ARG	-33.9767	-59.1872	1.16
Puerto Madryn	ARG	-42.7386	-65.0472	0.83
Escobar	ARG	-34.3500	-58.7667	1.07
San Fernando(ARG)	ARG	-34.4500	-58.5333	1.10
Tigre	ARG	-34.4333	-58.5500	1.10
Buenos Aires	ARG	-34.5903	-58.3775	1.01
Punta Colorada	ARG	-41.7000	-65.0333	0.67
Puerto Rosales	ARG	-38.9167	-62.0667	0.56
Puerto Belgrano	ARG	-38.9000	-62.1000	0.56
San Antonio Este	ARG	-40.8169	-64.7519	0.52
Puerto Galvan	ARG	-38.7833	-62.3000	0.93
Ensenada(ARG)	ARG	-34.8667	-57.9000	1.00
La Plata	ARG	-34.8725	-57.9069	1.00

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ibicuy	ARG	-33.7428	-59.1681	0.76
Amsterdam Is.	ATF	-37.8500	77.5333	1.23
Portland(AUS)	AUS	-38.3506	141.6058	1.00
Eden	AUS	-37.0672	149.9064	1.01
Ballast Head	AUS	-35.7667	137.8000	1.04
Rapid Bay	AUS	-35.5167	138.1833	0.97
Edithburgh	AUS	-35.0833	137.7500	0.93
Port Stanvac	AUS	-35.1167	138.4667	0.90
Port Giles	AUS	-35.0225	137.7603	0.93
Port Vincent	AUS	-34.9500	137.8667	0.93
Klein Point	AUS	-34.9172	137.7928	0.93
Albany(AUS)	AUS	-35.0278	117.8956	0.75
Port Kembla	AUS	-34.4650	150.8892	0.47
Port Lincoln	AUS	-34.7244	135.8692	0.53
Adelaide	AUS	-34.8503	138.5669	1.04
Esperance	AUS	-33.8736	121.8919	0.53
Thevenard	AUS	-32.1469	133.6467	0.38
Ardrossan(AUS)	AUS	-34.4344	137.9119	0.26
Jervis Bay	AUS	-35.1000	150.7833	0.63
Busselton	AUS	-33.6333	115.3333	0.42
Whyalla	AUS	-33.0375	137.5869	0.46
Wallaroo	AUS	-33.9294	137.6247	0.15
Port Pirie	AUS	-33.1686	138.0108	0.12
Bunbury	AUS	-33.3358	115.6503	0.85
Port Bonython	AUS	-32.9889	137.7672	0.14
Catherine Hill Bay	AUS	-33.1667	151.6333	0.66
Kurnell	AUS	-34.0000	151.2333	0.63
Port Jackson	AUS	-33.8333	151.2833	0.63
Kwinana	AUS	-32.2167	115.7500	0.29
Port Augusta	AUS	-32.5000	137.7833	1.05
Fremantle	AUS	-32.0592	115.7508	0.33
Lord Howe Is.	AUS	-31.5333	159.0833	0.75
Geraldton	AUS	-28.7786	114.5897	0.51
Useless Loop	AUS	-26.1103	113.3944	0.96
Coffs Hbr.	AUS	-30.3000	153.1500	0.92
Clarence River	AUS	-29.4167	153.3833	0.92
Thornlands	AUS	-27.5333	153.2667	0.92
Mackay	AUS	-21.1078	149.2175	0.86
Cape Cuvier	AUS	-24.2261	113.3939	1.00
Carnarvon	AUS	-24.8833	113.6667	0.87
Port Alma	AUS	-23.5828	150.8597	1.03
Urangan	AUS	-25.2833	152.9167	1.11
Hay Point	AUS	-21.2875	149.2847	1.11
Hamilton(BMU)	BMU	32.3000	-64.7833	0.84
Freeport(BMU)	BMU	32.3167	-64.8333	0.84
St. George's(BMU)	BMU	32.3833	-64.6667	0.84
Tramandai	BRA	-30.0000	-50.0833	0.60
Imbituba	BRA	-28.2336	-48.6528	0.49
Porto Laguna	BRA	-28.5000	-48.7500	0.49
Mangaratiba	BRA	-22.9000	-44.0500	0.68
Porto Belo	BRA	-27.1667	-48.5500	0.60

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Navegantes	BRA	-26.8833	-48.6500	0.65
Itajai	BRA	-26.8994	-48.6706	0.65
Ilhabela	BRA	-23.7667	-45.3500	0.74
Buzios	BRA	-22.7500	-41.9000	0.99
Sao Francisco do Sul	BRA	-26.2333	-48.6333	0.71
Forno	BRA	-23.0167	-42.0000	1.00
Angra dos Reis	BRA	-23.0061	-44.3131	1.05
Sao Sebastiao	BRA	-23.8000	-45.3833	1.03
Gebig	BRA	-23.0500	-44.2333	1.03
Macaee	BRA	-22.3500	-41.8000	1.13
Parati	BRA	-23.2167	-44.7167	1.07
Arraial do Cabo	BRA	-22.9667	-42.0333	1.24
Ponta do Ubu	BRA	-20.7833	-40.5833	1.26
Lota	CHL	-37.1000	-73.1667	1.29
Coronel	CHL	-37.0333	-73.1667	1.29
Puerto Papudo	CHL	-32.5000	-71.4500	1.16
Puerto Ventanas	CHL	-32.7500	-71.5000	1.20
Quintero	CHL	-32.7667	-71.5000	1.20
San Antonio(CHL)	CHL	-33.6000	-71.6167	0.99
Los Vilos	CHL	-31.9167	-71.5000	1.06
Cruz Grande	CHL	-29.4500	-71.3333	1.02
Huasco	CHL	-28.4500	-71.2333	0.88
Caleta Michilla	CHL	-22.7333	-70.2667	0.87
Caleta Barquito	CHL	-26.3500	-70.6500	0.77
Chanaral	CHL	-26.3500	-70.6333	0.77
Iquique	CHL	-20.2000	-70.1667	0.85
Caleta Patillos	CHL	-20.7500	-70.2000	0.85
Caleta Patache	CHL	-20.8000	-70.2000	0.85
Caldera(CHL)	CHL	-27.0667	-70.8833	0.79
Tocopilla	CHL	-22.0833	-70.2333	0.83
Taltal	CHL	-25.4000	-70.4833	0.72
Caleta Coloso	CHL	-23.7500	-70.4667	0.77
Antofagasta	CHL	-23.6333	-70.4333	0.77
Mejillones	CHL	-23.1000	-70.4667	0.66
Arica	CHL	-18.4833	-70.3333	0.53
Hanga Roa	CHL	-27.1500	-109.4167	0.88
Shidao	CHN	36.8833	122.4667	1.27
Longyan	CHN	37.4000	122.6167	1.25
Tangshan	CHN	39.2167	119.0167	1.27
Lianyungang	CHN	34.7333	119.4500	1.16
Lanshan	CHN	35.0833	119.3500	1.14
Huanghua	CHN	38.3667	117.3333	1.05
Tanggu	CHN	39.0000	117.6500	1.06
Tianjin	CHN	39.1000	117.1667	1.04
Shijiusuo	CHN	35.3833	119.5667	1.13
Xingang	CHN	38.9833	117.7500	1.05
Chongming	CHN	31.6167	121.3667	0.96
Luojing	CHN	31.4500	121.3000	0.93
Dongying	CHN	37.4500	118.4667	1.02
Shanghai	CHN	31.2500	121.5000	0.90
Nanhui	CHN	31.0500	121.7500	0.85

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kunshan	CHN	31.3667	120.9333	1.11
Taicang	CHN	31.4500	121.0833	1.11
Chuansha	CHN	31.2000	121.6833	1.05
Jiaxing	CHN	30.8500	120.8667	1.06
Fengxian	CHN	30.9167	121.4333	1.06
Caojing	CHN	30.7667	121.4000	1.01
Beilun	CHN	29.9333	121.8833	0.87
Pinghu	CHN	30.6833	121.0000	1.05
Jinshan	CHN	30.7167	121.3167	0.65
Zhenhai	CHN	29.9667	121.7000	0.89
Zhapu	CHN	30.5833	121.0833	1.04
Xiashi	CHN	30.5333	120.6833	1.05
Hangzhou	CHN	30.2500	120.1667	1.05
Majishan	CHN	30.6833	122.4167	0.62
Xiaoshan	CHN	30.1500	120.2500	1.05
Matsu Is.	CHN	26.1500	119.9333	0.52
Zhangzhou	CHN	24.4167	118.0500	0.50
Xiamen	CHN	24.4500	118.0667	0.50
Songxia	CHN	25.6833	119.5833	0.54
Shipu	CHN	29.1833	121.8500	0.60
Dongshan	CHN	23.7500	117.5167	0.63
Xiuyu	CHN	25.2167	118.9833	0.73
Meizhou	CHN	25.1833	119.0000	0.73
Sanbaimen	CHN	23.5333	117.0833	0.72
Raoping	CHN	23.6500	117.0167	0.72
Hankong	CHN	25.4333	119.0833	1.23
Chaoyang	CHN	23.2667	116.5667	1.29
Weitou	CHN	24.5333	118.5667	0.84
Donglian	CHN	22.7333	114.6167	0.87
Shanwei	CHN	22.8000	115.3333	0.85
Yantian	CHN	22.5900	114.2683	0.88
Shantou	CHN	23.3333	116.7500	0.87
Guangdong Term.	CHN	22.5667	114.4333	0.91
Mawan	CHN	22.4833	113.8667	0.95
Shekou	CHN	22.4833	113.9000	0.95
Chiwan	CHN	22.4667	113.8833	0.99
Zhuhai	CHN	22.2833	113.5833	1.00
Jiuzhou	CHN	22.2333	113.5833	0.99
Beihai	CHN	21.4500	109.0500	1.07
Aotou	CHN	22.7167	114.5167	1.01
Mabianzhou	CHN	22.6667	114.6500	1.01
Huizhou	CHN	22.7000	114.5667	1.01
Hong Kong	CHN	22.3000	114.1667	1.03
Lasawei	CHN	22.1333	113.8167	1.04
Macau	CHN	22.2000	113.5500	1.05
Shuidong	CHN	21.4833	111.0667	1.11
Maoming	CHN	21.4833	111.0833	1.11
Tinpak	CHN	21.5000	111.2500	1.11
Yutang	CHN	21.9333	112.7667	1.19
Macun	CHN	19.9500	110.0500	1.23
Qinglan	CHN	19.5833	110.8833	1.27

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Sha Tin	CHN	22.3667	114.1667	0.93
Gran Tarajal	CNI	28.2000	-14.0167	0.83
Arrecife	CNI	28.9500	-13.5500	0.79
Puerto del Rosario	CNI	28.5000	-13.8500	0.80
Morrojable	CNI	28.0333	-14.3333	0.82
Arguineguin	CNI	27.7500	-15.6667	0.54
Los Cristianos	CNI	28.0500	-16.7167	0.54
Las Palmas	CNI	28.1331	-15.4319	0.78
La Salineta	CNI	27.9667	-15.3667	0.79
Santa Cruz de Tenerife	CNI	28.4833	-16.2333	0.74
Palma(Canary Is)	CNI	28.6833	-17.7667	0.76
Santa Cruz de la Palma	CNI	28.6667	-17.7500	0.76
La Estaca	CNI	27.7833	-17.9000	0.79
Hierro	CNI	27.7500	-18.0000	0.79
Gomera	CNI	28.1000	-17.1000	0.77
San Sebastian(CNI)	CNI	28.0833	-17.1167	0.77
Moanda Term.	COD	-5.9667	12.1333	1.28
Pedra de Lume	CPV	16.7500	-22.9000	1.05
Palmeira	CPV	16.7500	-23.0000	1.05
Santa Maria(CPV)	CPV	16.5833	-22.9167	1.07
Porto Novo(CPV)	CPV	17.0167	-25.0667	1.14
Ponta do Sol	CPV	17.2000	-25.1000	1.14
Porto de Sal-Rei	CPV	16.1667	-22.9500	1.10
St. Nicholas(CPV)	CPV	16.6333	-24.2833	1.13
Mindelo	CPV	16.8833	-25.0000	1.15
St. Vincent(CPV)	CPV	16.9000	-25.0000	1.15
Maio	CPV	15.2000	-23.2500	1.18
Praia(CPV)	CPV	14.9000	-23.5167	1.21
Fogo	CPV	14.8667	-24.4833	1.25
Brava	CPV	14.8167	-24.6833	1.26
Xeros Pier	CYP	35.1333	32.8333	0.31
Karavostassi	CYP	35.1333	32.8167	0.31
Paphos	CYP	34.7500	32.4167	0.25
Latchi	CYP	35.0333	32.4000	0.49
Vassiliko Bay	CYP	34.7000	33.3333	0.54
Limassol	CYP	34.6542	33.0103	0.54
Akrotiri	CYP	34.5667	33.0333	0.54
Larnaca	CYP	34.9167	33.6333	0.54
Dhekelia	CYP	34.9833	33.7333	0.57
Famagusta	CYP	35.1167	33.9333	0.57
Kalecik	CYP	35.3167	33.9833	0.59
Kyrenia	CYP	35.3333	33.3167	0.60
Teknecik	CYP	35.2833	33.4667	0.60
Arzew	DZA	35.8606	-0.3097	0.30
Mers el Kebir	DZA	35.7333	-0.7000	0.28
Beni Saf	DZA	35.3008	-1.3906	0.31
Ghazaouet	DZA	35.0981	-1.8578	0.28
Annaba	DZA	36.8997	7.7567	0.10
Algiers	DZA	36.7706	3.0531	0.21
Tenes	DZA	36.5186	1.3197	0.18
Cherchell	DZA	36.6081	2.1931	0.20



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Dellys	DZA	36.9197	3.8936	0.12
Skikda	DZA	36.8778	6.9439	0.06
Bejaia	DZA	36.7217	5.0739	0.08
Djen Djen	DZA	36.8208	5.7700	0.14
Collo	DZA	37.0089	6.5633	0.15
Oran	DZA	35.7058	-0.6422	0.16
Mostaganem	DZA	35.9347	0.0808	0.32
Galapagos Is.	ECU	-0.2667	-91.3667	0.94
La Libertad(ECU)	ECU	-2.2167	-80.9167	1.05
Salinas	ECU	-2.1667	-80.9500	1.05
Sokhna	EGY	29.6833	32.3667	0.51
Ras Sudr Term.	EGY	29.5833	32.6833	0.53
Mersa Matruh	EGY	31.3667	27.2333	0.49
El Arish	EGY	31.1167	33.8000	0.46
Idku	EGY	31.3500	30.3000	0.56
Abu Kir	EGY	31.3000	30.0667	0.56
El Dekheila	EGY	31.1500	29.8000	0.56
Alexandria(EGY)	EGY	31.1833	29.8667	0.56
El Agami Is.	EGY	31.1500	29.7833	0.56
Adabiya	EGY	29.8667	32.4667	0.61
Port Said	EGY	31.2500	32.3000	0.61
Port Fouad	EGY	31.2333	32.3333	0.61
Abu Rudeis	EGY	28.9000	33.1667	0.71
Fayid	EGY	30.3333	32.3000	0.70
Nuweiba	EGY	28.9667	34.6333	0.74
Nifisha	EGY	30.5667	32.2500	0.73
Ismailia	EGY	30.5833	32.2833	0.73
Abu Sultan	EGY	30.4167	32.3000	0.76
Ras Gharib	EGY	28.3500	33.1167	0.84
Abu Zenima	EGY	29.0333	33.1167	0.78
Fanara	EGY	30.2833	32.3500	0.81
Ras Misalla	EGY	29.8167	32.6167	0.86
Sadat	EGY	29.8000	32.4500	0.87
Marakib	EGY	29.9167	32.5667	0.93
Suez	EGY	29.9667	32.5500	0.93
Port Ibrahim	EGY	29.9333	32.5500	0.93
El Tur	EGY	28.2167	33.6167	1.04
Safaga	EGY	26.7333	33.9333	1.02
Marsa Gamsa	EGY	27.6500	33.6000	1.17
Sharm el Sheikh	EGY	27.8500	34.2833	1.23
Hamrawein	EGY	26.2500	34.2000	1.28
Kosseir	EGY	26.1000	34.2833	1.28
Laayoune	ESH	27.0833	-13.4333	0.85
Dakhla	ESH	23.7000	-15.9167	1.09
Cudillero	ESP	43.5500	-6.1500	1.08
San Esteban de Pravia	ESP	43.5667	-6.0833	1.08
Bermeo	ESP	43.4167	-2.7167	1.02
Ribadesella	ESP	43.4667	-5.0667	0.99
Castro Urdiales	ESP	43.4000	-3.2333	1.00
Carino	ESP	43.7333	-7.8500	1.21
Pasajes	ESP	43.3333	-1.9333	0.97

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
San Sebastian(ESP)	ESP	43.3167	-1.9833	0.97
Burela	ESP	43.6500	-7.3333	1.13
San Ciprian	ESP	43.7000	-7.4500	1.13
Santona	ESP	43.4667	-3.4667	0.96
Ribadeo	ESP	43.5333	-7.0333	1.10
Camarinas	ESP	43.1167	-9.1833	1.17
Tapia de Casariego	ESP	43.5667	-6.9333	1.05
Castropol	ESP	43.5333	-7.0167	1.05
Puerto de Vega	ESP	43.5667	-6.6333	1.02
Navia	ESP	43.5500	-6.7167	1.02
Corunna	ESP	43.3833	-8.3667	0.94
Santa Eugenia de Riveira	ESP	42.5500	-8.9833	1.26
Aviles	ESP	43.5833	-5.9333	0.98
Gijon	ESP	43.5500	-5.6667	0.99
Villaviciosa	ESP	43.5333	-5.3833	1.01
Santander	ESP	43.4667	-3.7667	0.89
Lage	ESP	43.2167	-9.0000	0.91
Guetaria	ESP	43.3000	-2.2000	0.81
Zumaya	ESP	43.3000	-2.2500	0.81
Ondarroa	ESP	43.3167	-2.4167	0.82
Lequeitio	ESP	43.3667	-2.4833	0.82
Rosas	ESP	42.2500	3.1833	0.61
Vallcarca	ESP	41.2333	1.8667	0.56
San Feliu de Guixols	ESP	41.7667	3.0167	0.50
Palamos	ESP	41.8333	3.1333	0.50
Algeciras	ESP	36.1167	-5.4333	0.82
Ceuta	ESP	35.8833	-5.3167	0.81
Barcelona	ESP	41.3500	2.1667	0.41
Puerto Banus	ESP	36.4833	-4.9333	0.46
Palma(Maj)	ESP	39.5697	2.6256	0.37
Motril	ESP	36.7167	-3.5167	0.53
Tarragona	ESP	41.1000	1.2333	0.29
Almunecar	ESP	36.7333	-3.6833	0.33
Villanueva y Geltru	ESP	41.2167	1.7333	0.21
Melilla	ESP	35.2833	-2.9333	0.35
San Carlos de la Rapita	ESP	40.6000	0.6000	0.20
Alcanar	ESP	40.5833	0.5500	0.20
Castellon	ESP	39.9667	0.0167	0.10
Vinaroz	ESP	40.4667	0.4667	0.18
Malaga	ESP	36.7178	-4.4250	0.14
Ciudadela	ESP	40.0000	3.8333	0.10
Burriana	ESP	39.8667	-0.0667	0.14
Sagunto	ESP	39.6500	-0.2167	0.06
Tarifa	ESP	36.0000	-5.6000	0.14
Carboneras	ESP	37.0000	-1.8833	0.14
Garrucha	ESP	37.1667	-1.8333	0.14
Valencia	ESP	39.4500	-0.3000	0.02
Cartagena(ESP)	ESP	37.5833	-0.9833	0.12
Escombreras	ESP	37.5500	-0.9667	0.12
San Pedro del Pinatar	ESP	37.8167	-0.7500	0.11
Torreveja	ESP	37.9667	-0.6833	0.11

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
San Antonio(ESP)	ESP	38.9833	1.3000	0.03
Alicante	ESP	38.3333	-0.4833	0.08
Santa Pola	ESP	38.2000	-0.5667	0.09
Gandia	ESP	39.0000	-0.1500	0.00
Cullera	ESP	39.1833	-0.2167	0.00
Aguilas	ESP	37.4000	-1.5667	0.13
La Savina	ESP	38.7333	1.4167	0.03
Ibiza	ESP	38.9000	1.4667	0.03
La Canal	ESP	38.8333	1.3833	0.03
Denia	ESP	38.8333	0.1167	0.02
Formentera	ESP	38.6500	1.5833	0.05
Barbate	ESP	36.1667	-5.9833	0.19
San Javier	ESP	37.8000	-0.8333	1.20
Porto Colom	ESP	39.4333	3.2500	0.09
Mahon	ESP	39.8667	4.3000	0.10
Puerto Pollensa	ESP	39.8833	3.0667	0.11
Alcudia	ESP	39.8333	3.1333	0.11
San Fernando(ESP)	ESP	36.4667	-6.2000	1.02
Rota	ESP	36.6167	-6.3667	0.18
Cadiz	ESP	36.5000	-6.3333	0.18
Puerto de Santa Maria	ESP	36.6000	-6.2333	0.89
Almeria	ESP	36.8333	-2.5000	0.17
Roquetas	ESP	36.7500	-2.6167	0.17
Puerto Real	ESP	36.5333	-6.1833	1.13
Huelva	ESP	37.2667	-6.9167	1.15
Saint Brevin	FRA	47.2500	-2.1500	1.23
Quiberon	FRA	47.5000	-3.1167	1.25
St. Nazaire	FRA	47.2667	-2.2000	1.23
Sables d'Olonne	FRA	46.5000	-1.8000	1.19
La Rochelle	FRA	46.1500	-1.1500	1.08
Marennnes	FRA	45.8167	-1.1000	1.12
La Pallice	FRA	46.1667	-1.2333	1.03
La Teste	FRA	44.6167	-1.1500	1.26
St. Jean de Luz	FRA	43.4000	-1.6667	0.84
Biarritz	FRA	43.5000	-1.5667	0.75
Sanary-sur-Mer	FRA	43.1167	5.8000	0.77
Port Vendres	FRA	42.5167	3.1167	0.87
Collioure	FRA	42.5333	3.0833	0.87
Bastia	FRA	42.7000	9.4500	0.72
La Ciotat	FRA	43.1667	5.6000	0.70
Cassis	FRA	43.2167	5.5333	0.70
Lavera	FRA	43.3833	5.0000	0.82
Port de Bouc	FRA	43.4000	4.9833	0.82
Martigues	FRA	43.4000	5.0500	0.82
Le Lavandou	FRA	43.1333	6.3667	0.64
Marseilles	FRA	43.3333	5.3500	0.66
Etang de Berre	FRA	43.4833	5.1667	0.68
Ajaccio	FRA	41.9167	8.7333	0.58
Fos	FRA	43.3833	4.8500	0.64
Sete	FRA	43.4000	3.7000	0.62
La Nouvelle	FRA	43.0167	3.0667	0.59

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Propriano	FRA	41.6667	8.9000	0.52
Antibes	FRA	43.5833	7.1333	0.52
Cannes	FRA	43.5167	7.0167	0.52
Ile Rousse	FRA	42.6500	8.9333	0.51
Calvi	FRA	42.5833	8.8000	0.51
St. Tropez	FRA	43.2667	6.6333	0.42
Toulon	FRA	43.1167	5.9167	0.42
La Seyne	FRA	43.1000	5.8833	0.42
Villefranche	FRA	43.7000	7.3167	0.47
Nice	FRA	43.7000	7.2833	0.47
Beaulieu	FRA	43.7000	7.3333	0.47
Bonifacio	FRA	41.3833	9.1000	0.33
Hyerres-Plage	FRA	43.0833	6.1500	0.34
Porquerolles	FRA	42.9833	6.2000	0.31
Porto Vecchio	FRA	41.6000	9.2833	0.23
Gibraltar	GIB	36.1500	-5.3333	0.82
Basse Terre	GLP	16.0333	-61.7500	1.24
Banjul	GMB	13.4500	-16.5667	1.02
Thasos	GRC	40.7667	24.7000	0.94
Eratini	GRC	38.3500	22.2333	0.87
Alexandroupolis	GRC	40.8500	25.9500	0.92
Aspra Spitia	GRC	38.3667	22.6333	0.88
Elevtherai	GRC	40.8333	24.3167	0.87
Nea Peramos	GRC	40.8167	24.3000	0.87
Nea Karvali	GRC	40.9500	24.4833	0.88
Kavala	GRC	40.9167	24.4167	0.88
Thisvi	GRC	38.2500	22.9500	0.79
Lagos(GRC)	GRC	41.0000	25.1167	0.77
Prinos	GRC	40.9333	24.5167	0.77
Kalyvia	GRC	40.2667	23.4000	0.71
Yerakini	GRC	40.2667	23.4333	0.71
Thessaloniki	GRC	40.6333	22.9333	0.77
Nea Moudhania	GRC	40.2333	23.2833	0.68
Igoumenitsa	GRC	39.5333	20.2167	0.54
Limni	GRC	38.7667	23.3167	0.54
Galaxidi	GRC	38.3667	22.3833	0.55
Itea	GRC	38.4333	22.4167	0.55
Chios	GRC	38.3833	26.1500	0.49
Samothraki	GRC	40.4500	25.5333	0.40
Rion	GRC	38.3000	21.8000	0.47
Patras	GRC	38.2500	21.7333	0.47
Aegion	GRC	38.2500	22.1000	0.44
Astakos	GRC	38.5333	21.0833	0.42
Myrina	GRC	39.8667	25.0500	0.39
Eleusis	GRC	38.0333	23.5000	0.49
Ayios Evstratios	GRC	39.5167	24.9667	0.37
Mesolongion	GRC	38.3167	21.3667	0.31
Mytilene	GRC	39.1000	26.5833	0.55
Kalamata	GRC	37.0000	22.1167	0.31
Corfu	GRC	39.6167	19.9500	0.33
Stratoni	GRC	40.5167	23.8500	0.24

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Agioi Theodoroi	GRC	37.9000	23.0500	0.43
Kalamaki	GRC	37.9167	23.0167	0.43
Sousaki	GRC	37.9167	23.1167	0.43
Drepanon	GRC	38.7833	20.7333	0.32
Corinth	GRC	37.9500	22.9333	0.38
Rafina	GRC	38.0167	24.0000	0.34
Proti Is.	GRC	37.0500	21.5500	0.22
Kiato	GRC	38.0167	22.7333	0.18
Kimi	GRC	38.6333	24.1000	0.34
Kheli	GRC	37.3167	23.1500	0.30
Spetsai	GRC	37.2667	23.1667	0.30
Karistos	GRC	38.0167	24.4167	0.38
Isthmia	GRC	37.9167	23.0000	0.38
Skopelos	GRC	39.1167	23.7500	0.28
Alonisos	GRC	39.1500	23.8333	0.28
Andros	GRC	37.8167	24.9000	0.44
Porto Rafti	GRC	37.8833	24.0000	0.35
Aspropyrgos	GRC	38.0167	23.5833	0.43
Skiathos	GRC	39.1667	23.4833	0.22
Argostoli	GRC	38.2000	20.4833	0.22
Tinos	GRC	37.5333	25.1667	0.45
Mykonos	GRC	37.4500	25.3333	0.47
Delos	GRC	37.4000	25.2833	0.47
Kea	GRC	37.6333	24.3333	0.36
Ayios Nikolaos(Kea)	GRC	37.6667	24.3167	0.36
Laurium	GRC	37.7000	24.0667	0.33
Mandoudhi	GRC	38.8167	23.5333	0.29
Kymassi	GRC	38.8167	23.5167	0.29
Syros	GRC	37.4333	24.9500	0.42
Kithnos	GRC	37.4000	24.4667	0.36
Naxos	GRC	37.1000	25.3833	0.46
Paros	GRC	37.0833	25.3167	0.46
Karlovassi	GRC	37.8000	26.6833	0.60
Larimna	GRC	38.5667	23.3000	0.26
Serifos	GRC	37.1167	24.5333	0.38
Vatika Bay	GRC	36.5167	23.0000	0.31
Neapolis	GRC	36.5000	23.0500	0.31
Monemvasia	GRC	36.6833	23.0500	0.31
Pythagorion	GRC	37.6833	26.9333	0.32
Preveza	GRC	38.9500	20.7500	0.27
Nauplia	GRC	37.5667	22.8000	0.29
Kimolos	GRC	36.7833	24.5667	0.37
Sifnos Is.	GRC	36.9667	24.7167	0.37
Voudia Bay	GRC	36.7500	24.5333	0.37
Amorgos	GRC	36.8167	25.9000	0.47
Katakolon	GRC	37.6500	21.3333	0.18
Patmos	GRC	37.3000	26.5833	0.55
Samos	GRC	37.7500	26.9667	0.57
Ermioni	GRC	37.3833	23.2333	0.25
Hydra	GRC	37.3500	23.4667	0.25
Adhamas	GRC	36.7167	24.4500	0.35

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Metokhi	GRC	37.7000	23.3833	0.23
Poros	GRC	37.5000	23.4667	0.23
Thira	GRC	36.4167	25.4500	0.42
Rethimnon	GRC	35.3667	24.4667	0.32
Megara	GRC	37.9667	23.4000	0.21
Pachi	GRC	37.9667	23.3833	0.21
Revithousa	GRC	37.9592	23.4036	0.21
Aegina	GRC	37.7333	23.4167	0.21
Piraeus	GRC	37.9333	23.6333	0.22
Drapetzone	GRC	37.9333	23.6167	0.22
Perama	GRC	37.9500	23.5833	0.22
Salamis	GRC	37.9667	23.5000	0.22
St. George Hbr.(GRC)	GRC	37.9500	23.6000	0.22
Ambelaki	GRC	37.9500	23.5333	0.22
Ayia Marina(Leros Is.)	GRC	37.1500	26.8500	0.53
Port Laki	GRC	37.1167	26.8500	0.53
Astipalia	GRC	36.5333	26.3667	0.47
Ayios Nikolaos(Crete)	GRC	35.1833	25.7167	0.14
Ayia Galini	GRC	35.1000	24.6833	0.14
Pachia Ammos	GRC	35.1167	25.8333	0.14
Kithira	GRC	36.1333	23.0000	0.28
Gythion	GRC	36.7500	22.5667	0.18
Stavros	GRC	38.4500	20.6500	0.24
Vathi	GRC	38.3667	20.7333	0.24
Platilyali	GRC	38.4667	21.1000	0.26
Halki	GRC	36.2167	27.5833	0.44
Kalymnos	GRC	36.9500	26.9833	0.46
Kissamos	GRC	35.4833	23.6333	0.29
Suda Bay	GRC	35.4833	24.0500	0.30
Nisiros	GRC	36.6167	27.1333	0.44
Yali	GRC	36.6500	27.1167	0.44
Gavdo	GRC	34.8333	24.0667	0.35
Araxos	GRC	38.1667	21.4000	0.25
Sitia	GRC	35.2167	26.1167	0.16
Cape Tainaron	GRC	36.3833	22.4833	0.24
Karpathos	GRC	35.5000	27.2000	0.39
Skaramanga	GRC	38.0000	23.5833	0.37
Iraklion	GRC	35.2667	25.1667	0.35
Linoperamata	GRC	35.3500	25.0500	0.35
Kos	GRC	36.8833	27.3167	0.47
Zante	GRC	37.7833	20.9000	0.24
Pylos	GRC	36.9167	21.7000	0.26
Kyllini	GRC	37.9500	21.1500	0.27
Kali Limenes	GRC	34.9333	24.8333	0.36
Kyparissia	GRC	37.2500	21.6833	0.25
Simi	GRC	36.6167	27.8333	0.42
Rhodes	GRC	36.4500	28.2333	0.40
Omisalj	HRV	45.2167	14.5500	1.19
Kraljevica	HRV	45.2833	14.5667	1.19
Prtlog	HRV	45.0500	14.1500	0.97
Rabac	HRV	45.0667	14.1667	0.97

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Gruz	HRV	42.6667	18.0833	0.97
Dubrovnik	HRV	42.6333	18.1167	0.97
Pag	HRV	44.4500	15.0500	0.93
Umag	HRV	45.4333	13.5167	0.85
Ravnice	HRV	43.4167	16.7000	0.86
Omis	HRV	43.4333	16.7000	0.86
Malinska	HRV	45.1167	14.5167	0.83
Cavtat	HRV	42.5667	18.2167	0.87
Kastel Sucurac	HRV	43.5500	16.4167	0.85
Solin	HRV	43.5333	16.4667	0.85
Krk	HRV	45.0167	14.5833	0.83
Porec	HRV	45.2333	13.6000	0.81
Novigrad	HRV	45.3167	13.5667	0.81
Luka Mirna	HRV	45.3000	13.5667	0.81
Tar	HRV	45.3167	13.6000	1.27
Zadar	HRV	44.1167	15.2333	0.83
Vrsar	HRV	45.1500	13.6000	0.79
Rovinj	HRV	45.0833	13.6333	0.79
Pula	HRV	44.8833	13.8333	1.02
Ugljan	HRV	44.1333	15.1167	0.81
Vranjic	HRV	43.5000	16.4500	0.79
Split	HRV	43.5000	16.4500	0.79
Trogir	HRV	43.5167	16.2500	0.79
Brbinj	HRV	44.0667	14.9833	0.79
Brijuni	HRV	44.9000	13.7833	0.73
Rab	HRV	44.7500	14.7667	0.78
Ploce	HRV	43.0333	17.4167	0.77
Merag	HRV	44.9833	14.4333	0.56
Beli	HRV	45.1000	14.3667	0.56
Valbiska	HRV	45.0500	14.4667	0.56
Sibenik	HRV	43.7333	15.9000	0.72
Primosten	HRV	43.6833	15.9500	0.72
Bol	HRV	43.2500	16.6500	0.65
Korcula	HRV	42.8000	17.1333	0.58
Budava	HRV	44.9000	13.9833	0.90
Dugi Rat	HRV	43.4500	16.6500	0.62
Supetar	HRV	43.3833	16.5500	0.62
Gradac	HRV	44.9667	14.1000	0.47
Mali Losinj	HRV	44.5333	14.4667	0.45
Veli Rat	HRV	44.1500	14.8167	0.42
Sali	HRV	43.9167	15.1667	0.36
Milna	HRV	43.3167	16.4500	0.36
Hvar	HRV	43.2667	16.4500	0.36
Stari Grad	HRV	43.2000	16.5500	0.33
Vela Luka	HRV	42.9833	16.6167	0.34
Komiza	HRV	43.0333	16.0833	0.33
Brna	HRV	42.9000	16.8500	0.27
Lastovo	HRV	42.7667	16.9000	0.27
Ubli	HRV	42.7333	16.8167	0.27
Bandar Imam Khomeini	IRN	30.4167	49.0667	0.92
Bandar Mahshahr	IRN	30.4667	49.1833	0.92

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Asaluyeh Term.	IRN	27.5167	52.5333	1.00
Bandar Taheri	IRN	27.6500	52.3500	1.08
Imam Hasan	IRN	29.8000	50.1833	1.16
Kharg Is.	IRN	29.2333	50.3167	1.25
Haifa	ISR	32.8167	35.0000	0.37
Tel Aviv	ISR	32.1000	34.7833	0.37
Ashkelon	ISR	31.6667	34.5500	0.42
Hadera	ISR	32.4500	34.9167	0.43
Akko	ISR	32.9167	35.0667	0.51
Ashdod	ISR	31.8258	34.6542	0.78
Eilat	ISR	29.5500	34.9500	0.85
San Remo	ITA	43.8167	7.7833	1.12
Portofino	ITA	44.3000	9.2333	1.10
Santa Margherita(ITA)	ITA	44.3333	9.2167	1.10
Marina di Carrara	ITA	44.0333	10.0500	0.97
Cesenatico	ITA	44.2000	12.4000	1.00
Lavagna	ITA	44.3000	9.3500	0.87
Sestri Levante	ITA	44.2667	9.3833	0.87
Monfalcone	ITA	45.7833	13.5500	0.92
Cattolica	ITA	43.9500	12.7333	0.92
Genoa	ITA	44.4167	8.9167	0.83
Trieste	ITA	45.6500	13.8000	0.87
Muggia	ITA	45.6000	13.7500	0.87
Pesaro	ITA	43.9167	12.9000	0.89
La Spezia	ITA	44.1167	9.8333	0.78
Portovenere	ITA	44.0500	9.8333	0.78
Senigallia	ITA	43.7000	13.0500	0.85
Formia	ITA	41.2500	13.6000	0.77
Falconara	ITA	43.6667	13.4000	0.81
Marano	ITA	45.4333	12.3500	0.83
Venice	ITA	45.4333	12.3333	0.83
Pellestrina	ITA	45.2667	12.3000	0.83
Savona	ITA	44.3000	8.4833	0.74
Chioggia	ITA	45.2167	12.2833	0.80
Porto Levante	ITA	45.0667	12.3667	0.80
Viareggio	ITA	43.8667	10.2500	0.74
Giulianova	ITA	42.7500	13.9667	0.72
Amalfi	ITA	40.6333	14.6000	0.65
Ventimiglia	ITA	43.7833	7.6000	0.63
Bordighera	ITA	43.7833	7.6667	0.63
Porto Garibaldi	ITA	44.6833	12.2333	0.74
San Benedetto del Tronto	ITA	42.9500	13.8833	0.70
Ravenna	ITA	44.4167	12.4500	0.71
Ameglia	ITA	44.0667	9.9667	0.63
Rimini	ITA	44.0667	12.5833	0.65
Salerno	ITA	40.6833	14.7667	0.58
Vada	ITA	43.3500	10.4500	0.56
Leghorn	ITA	43.5500	10.3167	0.53
Vasto	ITA	42.1000	14.7167	0.53
Monopoli	ITA	40.9500	17.3000	0.52
Bagnara Calabra	ITA	38.2667	15.8000	0.46



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Fano	ITA	43.8500	13.0167	0.42
Talamone	ITA	42.5500	11.1333	0.48
Vieste	ITA	41.8667	16.1833	0.54
Pietra Ligure	ITA	44.1500	8.2833	0.52
Follonica	ITA	42.9167	10.7500	0.46
Portiglione	ITA	42.8833	10.7667	0.46
Terracina	ITA	41.2833	13.2500	0.43
Ancona	ITA	43.6172	13.5117	0.39
Torre Annunziata	ITA	40.7500	14.4500	0.42
Torre del Greco	ITA	40.7833	14.3667	0.42
Castellammare di Stabia	ITA	40.7000	14.4833	0.42
Imperia	ITA	43.8833	8.0333	0.48
Naples	ITA	40.8500	14.2667	0.42
Fiumicino	ITA	41.7667	12.2333	0.39
Ostia	ITA	41.7167	12.3000	0.39
Bari	ITA	41.1333	16.8833	0.40
Civitavecchia	ITA	42.1000	11.8000	0.34
Portici	ITA	40.8167	14.3333	0.40
Termoli	ITA	42.0000	15.0000	0.31
Ortona	ITA	42.3500	14.4167	0.30
Pescara	ITA	42.4667	14.2333	0.30
Corigliano	ITA	39.6667	16.5167	0.39
Santa Teresa Gallura	ITA	41.2333	9.1667	0.30
Molfetta	ITA	41.2167	16.6333	0.38
Tremiti Is.	ITA	42.1167	15.5000	0.30
Manfredonia	ITA	41.6167	15.9167	0.43
Barletta	ITA	41.3167	16.2667	0.30
Trani	ITA	41.2833	16.4167	0.30
Acciaroli	ITA	40.1667	15.0167	0.31
Pozzuoli	ITA	40.8167	14.1167	0.31
Bagnoli	ITA	40.8000	14.1667	0.31
Baia	ITA	40.8167	14.0833	0.31
Procida	ITA	40.7833	14.0333	0.31
Catania	ITA	37.5167	15.1000	0.33
Arbatax	ITA	39.9333	9.7000	0.31
Alghero	ITA	40.5667	8.3167	0.23
Porto Cervo	ITA	41.1333	9.5500	0.31
Golfo Aranci	ITA	41.0000	9.6167	0.31
Olbia	ITA	40.9167	9.5667	0.27
Capraia Is.	ITA	43.0500	9.9000	0.28
Sarroch	ITA	39.0833	9.0333	0.22
Santa Liberata	ITA	42.4167	11.1500	0.29
Porto Santo Stefano	ITA	42.4500	11.1167	0.29
Porto Torres	ITA	40.8333	8.4000	0.23
Giglio Is.	ITA	42.3667	10.9167	0.25
Vallone	ITA	42.7000	10.4000	0.23
Palau(ITA)	ITA	41.1833	9.3833	0.15
La Maddalena	ITA	41.2167	9.4000	0.15
Portoferraio	ITA	42.8167	10.3333	0.20
Rio Marina	ITA	42.8167	10.4333	0.20
Porto Azzurro	ITA	42.7667	10.4000	0.20

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Vibo Valentia	ITA	38.7167	16.1333	0.17
Cagliari	ITA	39.2000	9.0833	0.17
Santa Giusta	ITA	39.8833	8.6167	0.82
Porto Vesme	ITA	39.2000	8.4000	0.18
Sant' Antioco	ITA	39.0333	8.4333	0.18
Portoscuso	ITA	39.2167	8.3667	0.18
Carloforte	ITA	39.1500	8.3167	0.18
Taranto	ITA	40.4500	17.2000	0.13
Gallipoli	ITA	40.0500	18.0000	0.28
Piombino	ITA	42.9333	10.5500	0.16
Otranto	ITA	40.1500	18.5000	0.13
Anzio	ITA	41.4500	12.6333	0.18
Brindisi	ITA	40.6500	17.9833	0.11
Oristano	ITA	39.8667	8.5500	0.11
Gaeta	ITA	41.2167	13.5833	0.13
Ciro Marina	ITA	39.3667	17.1333	0.09
Crotone	ITA	39.0833	17.1333	0.10
Agropoli	ITA	40.3333	14.9667	0.15
Marina di Catanzaro	ITA	38.8167	16.6167	0.17
Capri	ITA	40.5500	14.2500	0.13
Positano	ITA	40.6167	14.4667	0.13
Sorrento	ITA	40.6333	14.3833	0.13
Ponza	ITA	40.9000	12.9667	0.11
Porto d'Ischia	ITA	40.7333	13.9500	0.11
Casamicciola Terme	ITA	40.7500	13.9000	0.11
Palermo	ITA	38.1167	13.3667	0.11
Gela	ITA	37.0667	14.2500	0.06
Torregrotta	ITA	38.2000	15.3667	0.13
Porto Empedocle	ITA	37.2833	13.5333	0.09
Marsala	ITA	37.8000	12.4333	0.15
Favignana	ITA	37.9333	12.3333	0.15
Reggio di Calabria	ITA	38.1167	15.6500	0.11
Messina	ITA	38.2000	15.5667	0.11
Villa San Giovanni	ITA	38.2167	15.6333	0.11
Pantelleria	ITA	36.7833	12.0000	0.15
Marzamemi	ITA	36.7500	15.1167	0.16
Avola	ITA	36.9000	15.1500	0.16
Licata	ITA	37.1000	13.9333	0.08
Santa Panagia	ITA	37.1167	15.2667	0.15
Siracusa	ITA	37.0500	15.3000	0.15
Capo San Vito	ITA	38.2000	12.7167	0.09
Trapani	ITA	38.0333	12.5167	0.09
Porto Xifonio	ITA	37.2333	15.2333	0.15
Pozzallo	ITA	36.7167	14.8500	0.17
Castellammare del Golfo	ITA	38.0333	12.8833	0.09
Stromboli	ITA	38.8000	15.2500	0.11
Lipari	ITA	38.4667	14.9500	0.10
Vulcano	ITA	38.4167	14.9667	0.10
Taormina	ITA	37.8500	15.3000	0.15
Giardini	ITA	37.8333	15.2833	0.15
Panarea	ITA	38.6333	15.0667	0.11

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Riposto	ITA	37.7333	15.2167	0.18
Termini Imerese	ITA	37.9833	13.7000	0.11
Porticello	ITA	38.0833	13.5333	0.11
Salina	ITA	38.5667	14.8667	0.11
Rinella	ITA	38.5500	14.8333	0.11
Ustica	ITA	38.7000	13.1833	0.12
Mazara del Vallo	ITA	37.6500	12.5833	0.15
Sciacca	ITA	37.5000	13.0833	0.15
Gioia Tauro	ITA	38.4333	15.9000	0.16
Augusta	ITA	37.2000	15.2167	0.20
Linosa Is.	ITA	35.8667	12.8500	0.19
Lampedusa Is.	ITA	35.5000	12.6000	0.20
Milazzo	ITA	38.2167	15.2500	0.26
Aqaba	JOR	29.5167	35.0167	0.69
Mutsu Ogawara	JPN	40.9500	141.4167	1.29
Ofunato	JPN	38.9833	141.7500	1.25
Okuma	JPN	37.3833	140.9833	1.19
Tomioka	JPN	37.3333	141.0000	1.19
Hirono	JPN	37.2333	141.0167	1.19
Fukushima	JPN	41.4667	140.2667	0.86
Haramichi	JPN	37.6333	140.9667	1.20
Ishinomaki	JPN	38.4167	141.3000	1.22
Sakata	JPN	38.9333	139.8167	1.27
Shiogama	JPN	38.3167	141.0333	1.21
Sendai	JPN	38.2667	141.0500	1.21
Sendai-Shiogama	JPN	38.2833	141.0333	1.21
Soma	JPN	37.8333	140.9667	1.14
Kuroshima	JPN	37.2667	136.7333	1.14
Hikari	JPN	33.9500	131.9333	0.79
Kasado	JPN	33.9500	131.7833	0.79
Tsuruga	JPN	35.6667	136.0833	1.14
Saganoseki	JPN	33.2500	131.8667	0.68
Seki Saki	JPN	33.2667	131.9000	0.68
Naoetsu	JPN	37.1833	138.2500	1.23
Hitachi	JPN	36.4833	140.6333	0.97
Usuki	JPN	33.1333	131.8167	0.61
Tsukumi	JPN	33.0833	131.8667	0.61
Nagasu	JPN	33.5833	131.3667	0.63
Kashiwazaki	JPN	37.3667	138.5500	1.06
Nagahama	JPN	33.6167	132.4833	0.91
Tokuyama	JPN	34.0000	131.8000	0.93
Nakanoseki	JPN	34.0000	131.5667	0.93
Niigata	JPN	37.9500	139.0667	1.06
Kamo	JPN	34.8500	138.7833	0.78
Yoshida	JPN	33.2667	132.5333	0.83
Uwajima	JPN	33.2167	132.5500	0.83
Kashima	JPN	35.9333	140.7000	0.79
Hagi	JPN	34.4000	131.4000	0.89
Mihara	JPN	34.3833	133.1000	0.99
Itozaki	JPN	34.3833	133.1000	0.99
Owase	JPN	34.0667	136.2167	0.78

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Otake	JPN	34.2000	132.2000	0.92
Hinase	JPN	34.7167	134.2500	0.74
Nanao	JPN	37.1000	137.0333	0.55
Shodoshima	JPN	34.5000	134.2500	0.72
Kannoura	JPN	33.5833	134.3000	0.77
Toyama Shinko	JPN	36.8000	137.0833	0.56
Fushiki	JPN	36.7833	137.0500	0.56
Fushiki-Toyama	JPN	36.7667	137.0833	0.56
Mitajiri	JPN	34.0167	131.6000	0.94
Choshi	JPN	35.7333	140.6833	0.73
Hamada	JPN	34.8833	132.0333	0.82
Toyama	JPN	36.7500	137.2333	0.56
Ebisu	JPN	38.0833	139.4333	0.59
Esaki	JPN	34.6500	131.6500	0.58
Niigata-Higashi	JPN	38.0000	139.2333	0.59
Fukui	JPN	36.2167	136.1333	1.00
Himekawa	JPN	37.0333	137.8500	0.55
Tokai	JPN	36.4500	140.5833	0.43
Nakaminato	JPN	36.3500	140.6333	0.43
Kure	JPN	34.2333	132.5500	0.92
Hiro	JPN	34.2167	132.6167	0.92
Mitsukoshima	JPN	34.1833	132.5167	0.92
Tsukama	JPN	35.0000	138.5167	0.77
Takuma	JPN	34.2500	133.7000	0.63
Akitsu	JPN	34.3167	132.8167	0.93
Ishima	JPN	34.6667	134.5000	0.68
Senzaki	JPN	34.4000	131.2000	0.84
Honai	JPN	33.4667	132.3833	0.81
Yawatahama	JPN	33.4500	132.4000	0.81
Arari	JPN	34.8167	138.7500	0.66
Shimizu	JPN	35.0167	138.5333	0.80
Kanazawa	JPN	36.6167	136.6000	0.97
Numakuma	JPN	34.3667	133.3000	0.97
Tsuneishi	JPN	34.3667	133.2833	0.97
Matsunaga	JPN	34.4167	133.2500	0.97
Mukaishima	JPN	34.3833	133.2000	0.96
Onomichi	JPN	34.4000	133.1833	0.96
Hiketa	JPN	34.2167	134.4000	0.90
Ujina	JPN	34.3500	132.4667	0.89
Susaki	JPN	33.3833	133.3000	0.77
Habu	JPN	34.2833	133.1833	0.91
Ajisu	JPN	34.0000	131.3667	0.91
Aioi	JPN	34.7667	134.4667	0.99
Ako	JPN	34.7333	134.3833	0.99
Naoshima	JPN	34.4500	134.0000	0.60
Honura	JPN	34.4500	134.0000	0.60
Takamatsu	JPN	34.3500	134.0500	0.60
Toyo	JPN	33.9167	133.0667	0.88
Saijo	JPN	33.9167	133.1667	0.88
Tateyama	JPN	35.0000	139.8667	0.68
Kikuma	JPN	34.0333	132.8333	0.47

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kinoe	JPN	34.2167	132.9000	0.47
Namikata	JPN	34.1167	132.9667	0.47
Yutaka	JPN	34.1667	132.8333	0.47
Onishi	JPN	34.0500	132.9167	0.47
Hashihama	JPN	34.1000	132.9667	0.47
Iwagi	JPN	34.2333	133.1333	0.92
Saizaki	JPN	34.3333	133.0333	0.92
Shigei	JPN	34.3333	133.1333	0.92
Setoda	JPN	34.3000	133.1000	0.92
Yanai	JPN	33.9500	132.1333	0.84
Hirao	JPN	33.9000	132.0500	0.84
Saiki	JPN	32.9667	131.9167	0.72
Fukuyama	JPN	34.4333	133.4500	0.95
Kasaoka	JPN	34.5000	133.5000	0.95
Kudamatsu	JPN	34.0000	131.8500	0.86
Yoshiumi	JPN	34.1333	133.0333	0.48
Kinoura	JPN	34.2000	133.1333	0.48
Imabari	JPN	34.0667	133.0167	0.48
Saga	JPN	34.0667	133.0833	0.48
Awaji	JPN	34.5667	135.0000	0.89
Akashi	JPN	34.6500	135.0000	0.89
Sakito	JPN	33.0167	129.5500	0.66
Sakaide	JPN	34.3333	133.8500	0.89
Uchinomi	JPN	34.4667	134.3167	0.56
Hiroshima	JPN	34.3333	132.4500	0.86
Etajima	JPN	34.2333	132.4667	0.86
Oshima	JPN	33.4667	129.5333	0.71
Hososhima	JPN	32.4500	131.6667	0.70
Omishima	JPN	34.2500	133.0000	0.89
Takehara	JPN	34.3167	132.9167	0.89
Higashino	JPN	34.2500	132.9000	0.89
Osaki	JPN	34.2333	132.8667	0.89
Usunoura	JPN	33.2000	129.5833	0.71
Ainoura	JPN	33.1833	129.6500	0.71
Uno	JPN	34.4833	133.9500	0.92
Hibi	JPN	34.4500	133.9333	0.92
Tamano	JPN	34.4833	133.9333	0.92
Aboshi	JPN	34.7667	134.6000	0.95
Himeji	JPN	34.7667	134.6333	0.95
Hirohata	JPN	34.7667	134.6167	0.95
Shikama	JPN	34.7833	134.6667	0.95
Kunisaki	JPN	33.5833	131.7167	0.83
Sukumo	JPN	32.9167	132.7167	0.67
Kanda	JPN	33.8000	131.0000	0.45
Tanoura	JPN	33.9667	130.9833	0.45
Ube	JPN	33.9333	131.2000	0.45
Niihama	JPN	33.9833	133.2833	0.48
Onahama	JPN	36.9333	140.9167	0.33
Tagonoura	JPN	35.1333	138.7000	0.74
Numazu	JPN	35.1333	138.8333	0.74
Nakajima	JPN	33.9000	132.7333	0.85

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Hojo	JPN	33.9667	132.7667	0.85
Hannan	JPN	34.4667	135.3500	0.88
Kishiwada	JPN	34.4667	135.3667	0.88
Nandan	JPN	34.2333	134.7000	0.49
Oppama	JPN	35.5667	135.2500	0.45
Tsuna	JPN	34.4167	134.9000	0.49
Sumoto	JPN	34.3333	134.8833	0.49
Uchiura	JPN	35.5333	135.5000	0.46
Takahama	JPN	35.5000	135.5333	0.46
Sakaiminato	JPN	35.5333	133.2500	0.37
Tanabe	JPN	33.7167	135.3500	0.68
Kobe	JPN	34.6667	135.2167	0.82
Mega	JPN	34.7667	134.7000	0.93
Higashi-Harima	JPN	34.7167	134.8333	0.93
Kakogawa	JPN	34.7000	134.8333	0.93
Takasago	JPN	34.7333	134.8000	0.93
Shirashima	JPN	34.0167	130.7333	0.79
Anan	JPN	33.9000	134.6667	0.76
Matsuura	JPN	33.3500	129.7333	0.72
Ushimado	JPN	34.6167	134.1667	0.95
Befu	JPN	34.7167	134.8500	0.92
Marugame	JPN	34.3000	133.7833	0.88
Tadotsu	JPN	34.2833	133.7333	0.88
Arida	JPN	34.0833	135.1167	0.40
Shimotsu	JPN	34.1167	135.1333	0.40
Kainan	JPN	34.1500	135.1833	0.40
Wakayama	JPN	34.2000	135.1333	0.40
Karatsu	JPN	33.4667	129.9667	0.75
Beppu	JPN	33.3000	131.5167	0.79
Kawanoe	JPN	34.0167	133.5333	0.48
Mishima-Kawanoe	JPN	34.0167	133.5667	0.48
Iwakuni	JPN	34.1667	132.2500	0.39
Kanokawa	JPN	34.1667	132.4333	0.39
Ogaki	JPN	34.1667	132.4500	0.39
Mizushima	JPN	34.5000	133.7500	0.91
Taura	JPN	35.3000	139.6333	0.68
Gamagori	JPN	34.8000	137.2167	0.79
Mikawa	JPN	34.7667	137.2667	0.79
Chita	JPN	34.9833	136.8500	0.87
Handa	JPN	34.8833	136.9333	0.85
Kinuura	JPN	34.8667	136.9500	0.85
Onoda	JPN	34.0000	131.1833	0.82
Nobeoka	JPN	32.5833	131.7167	0.64
Tachibana	JPN	33.8833	134.7167	0.72
Urado	JPN	33.5000	133.5833	0.70
Kurihama	JPN	35.2167	139.7333	0.70
Yokosuka	JPN	35.2833	139.6833	0.70
Hamaoka	JPN	34.6333	138.1333	0.69
Matsuyama	JPN	33.8500	132.7000	0.35
Katsuura	JPN	33.6167	135.9500	0.59
Yura	JPN	33.9500	135.1000	0.73

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Nagoya	JPN	35.0500	136.8500	0.90
Yokkaichi	JPN	34.9500	136.6500	0.44
Komenotsu	JPN	32.1000	130.3333	0.64
Izumisano	JPN	34.3833	135.3000	0.87
Futtsu	JPN	35.3000	139.8167	0.34
Uraga	JPN	35.2333	139.7333	0.33
Saitozaki	JPN	33.6333	130.3500	1.02
Fukuoka	JPN	33.6500	130.3500	1.02
Kisarazu	JPN	35.3667	139.8833	0.92
Hitakatsu	JPN	34.6833	129.4500	0.28
Hakata	JPN	33.6167	130.3833	1.10
Taisha	JPN	35.4333	132.6667	0.32
Kushikino	JPN	31.7500	130.2667	0.61
Gotsu	JPN	35.0000	132.2167	0.32
Naruto	JPN	34.1833	134.6167	0.39
Komatsushima	JPN	34.0000	134.6000	0.39
Tokushima	JPN	34.0500	134.6000	0.39
Usami	JPN	35.0000	139.1000	0.32
Amagasaki	JPN	34.6833	135.3833	0.89
Nishinomiya	JPN	34.7167	135.3500	0.89
Tsu	JPN	34.6833	136.5500	0.37
Nango	JPN	31.5167	131.3667	0.57
Aburatsu	JPN	31.5667	131.4000	0.57
Ikata	JPN	33.4833	132.3500	0.28
Kawanoishi	JPN	33.4833	132.3833	0.28
Toba	JPN	34.4833	136.8500	0.33
Miura	JPN	35.1333	139.6167	0.34
Osaka	JPN	34.6500	135.4000	0.86
Sakai	JPN	34.5667	135.4000	0.86
Makurazaki	JPN	31.2667	130.3000	0.54
Atsumi	JPN	34.6667	137.0667	0.34
Tsutsu	JPN	34.1167	129.1833	0.30
Izuhara	JPN	34.1833	129.3000	0.29
Toyohashi	JPN	34.7167	137.3167	0.32
Miyazaki	JPN	31.8833	131.4500	0.63
Shibushi	JPN	31.4667	131.1167	0.59
Yaizu	JPN	34.8667	138.3333	0.32
Oigawa	JPN	34.7833	138.3000	0.32
Misaki	JPN	33.3833	132.1333	0.35
Omaezaki	JPN	34.6000	138.2333	0.35
Nagashima	JPN	34.1833	136.3500	0.38
Shimoda	JPN	34.6667	138.9500	0.37
Moji	JPN	33.9500	130.9667	0.43
Kokura	JPN	33.9000	130.9000	0.43
Shimonoseki	JPN	33.9333	130.9333	0.43
Mutsure	JPN	33.9667	130.8667	0.43
Nagasaki	JPN	32.7167	129.8333	0.40
Udono	JPN	33.7333	136.0167	0.41
Kamigoto	JPN	32.9833	129.0667	0.41
Matsushima	JPN	32.9333	129.6000	0.41
Oseto	JPN	32.9333	129.6500	0.41

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Wakamatsu	JPN	33.9167	130.8167	1.29
Kuchinotsu	JPN	32.6000	130.2000	0.45
Reihoku	JPN	32.5000	130.0333	0.45
Shingu	JPN	33.7000	136.0000	0.49
Kiire	JPN	31.3833	130.5500	0.69
Kushimoto	JPN	33.4667	135.7833	0.75
Miyanoura	JPN	30.4333	130.5833	0.99
Naze	JPN	28.3833	129.5000	1.19
Sokcho	KOR	38.2333	128.5500	1.02
Boryoung	KOR	35.3333	126.4667	0.99
Donghae	KOR	37.5136	129.1203	0.70
Samchok	KOR	37.4842	129.1239	0.70
Okke	KOR	37.5000	129.0833	0.70
Mukho	KOR	37.5492	129.1086	0.70
Jinhae	KOR	35.1333	128.6500	1.16
Pohang	KOR	36.0333	129.4333	1.12
Samchonpo	KOR	34.9167	128.0667	1.13
Wando	KOR	34.3667	126.6667	1.10
Mipo	KOR	35.5167	129.4333	1.10
Tongyong	KOR	34.8333	128.4167	1.12
Ulsan	KOR	35.4833	129.4000	1.11
Yosu	KOR	34.7500	127.7833	1.07
Samil	KOR	34.8667	127.7833	1.12
Gwangyang	KOR	34.9000	127.7000	1.12
Hadong	KOR	34.9500	127.8167	1.12
Seogwipo	KOR	33.2333	126.5667	0.85
Busan	KOR	35.1000	129.0667	0.98
Suyong	KOR	35.1500	129.1500	0.98
Mokpo	KOR	34.7833	126.3833	1.08
Onsan	KOR	35.4500	129.3667	0.37
Okpo	KOR	34.8833	128.7167	0.34
Jeju	KOR	33.5167	126.5500	0.34
Doha(KWT)	KWT	29.3833	47.8000	0.90
Mina al Ahmadi	KWT	29.0667	48.1500	0.89
Mina Abdulla	KWT	29.0167	48.1667	0.89
Shuaiba	KWT	29.0333	48.1667	0.89
Sea Island(KWT)	KWT	29.1167	48.2833	0.96
Kubbar Is.	KWT	29.0667	48.5667	0.99
Mina Saud	KWT	28.7500	48.4333	1.07
Chekka	LBN	34.3333	35.7333	0.24
Tripoli(LBN)	LBN	34.4667	35.8333	0.20
Enfeh	LBN	34.3500	35.7333	0.20
Amchite	LBN	34.1500	35.6167	0.18
Jbeil	LBN	34.1000	35.6333	0.18
Jounieh	LBN	33.9833	35.6500	0.22
Dbayeh	LBN	33.9333	35.5833	0.22
Beirut	LBN	33.9000	35.5167	0.22
Ouzai	LBN	33.8333	35.4833	0.32
Khalde	LBN	33.8000	35.4833	0.32
Selaata	LBN	34.2667	35.6500	0.65
Jieh	LBN	33.6667	35.4000	0.67



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Sidon	LBN	33.5667	35.3667	0.67
Zahrani Term.	LBN	33.5333	35.3167	0.67
Sour	LBN	33.2667	35.2000	0.68
Naqura	LBN	33.1167	35.1333	0.70
Ras el Hilal	LBY	32.9167	22.1833	0.23
Mellitah	LBY	32.8833	12.2500	0.28
Az Zawiyah	LBY	32.8167	12.7167	0.28
Abu Kammash	LBY	33.0667	11.8167	0.29
Derna	LBY	32.7667	22.6500	0.34
Tobruk	LBY	32.0833	23.9833	0.42
Ras Lanuf	LBY	30.5167	18.5667	0.39
Rasco Hbr.	LBY	30.5333	18.6000	0.39
Bardia	LBY	31.7500	25.1167	0.46
Khoms	LBY	32.6500	14.2667	0.48
Sirte	LBY	31.2167	16.5833	0.52
Misurata	LBY	32.3667	15.2333	0.51
Benghazi	LBY	32.1167	20.0500	0.53
Zueitina Term.	LBY	30.8500	20.0500	0.57
Ras el Mungar	LBY	31.1833	20.1000	0.58
Zuara	LBY	32.9167	12.1167	0.57
Marsa el Brega	LBY	30.4167	19.5833	0.60
Tripoli(LBY)	LBY	32.9000	13.1833	0.62
Essaouira	MAR	31.5000	-9.7833	1.14
Tangier	MAR	35.7833	-5.8000	0.80
Al Hoceima	MAR	35.2500	-3.9000	0.52
Nador	MAR	35.2667	-2.9167	0.35
Larache	MAR	35.2000	-6.1500	0.27
Tan Tan	MAR	28.5000	-11.3500	0.72
Casablanca	MAR	33.6167	-7.6000	0.59
Rabat	MAR	34.0333	-6.8333	0.61
Mehdia	MAR	34.3000	-6.6500	0.62
Agadir	MAR	30.4167	-9.6333	0.47
El Jadida	MAR	33.2667	-8.5167	0.53
Mohammedia	MAR	33.7167	-7.3667	0.31
Safi	MAR	32.3000	-9.2500	0.26
Jorf Lasfar	MAR	33.1167	-8.6333	0.24
Sidi Ifni	MAR	29.3667	-10.2000	0.58
Tarfaya	MAR	27.9333	-12.9333	0.78
Monte Carlo	MCO	43.7333	7.4167	0.89
Mananjary	MDG	-21.2333	48.3500	1.15
Toamasina	MDG	-18.1500	49.4167	1.28
Morro Redondo	MEX	28.0500	-115.1833	0.94
El Sauzal	MEX	31.8833	-116.6833	0.63
Ensenada(MEX)	MEX	31.8500	-116.6333	0.53
Mulege	MEX	26.8833	-111.9500	0.73
Loreto	MEX	26.0167	-111.3500	0.72
Venustiano Carranza	MEX	28.0333	-114.1167	1.18
San Juan de la Costa	MEX	24.4000	-110.4000	0.95
Pichilingue	MEX	24.3000	-110.3000	0.95
La Paz(MEX)	MEX	24.1667	-110.3167	0.97
San Carlos(Sonora)	MEX	27.9500	-111.0333	1.12

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Puerto Libertad	MEX	29.9000	-112.6833	1.12
Los Barriles	MEX	23.6833	-109.6833	1.16
Cabo San Lucas	MEX	22.8333	-109.9167	1.17
Santa Rosalia	MEX	27.3333	-112.2667	1.19
San Marcos Is.	MEX	27.1833	-112.1000	1.24
Puerto Penasco	MEX	31.3000	-113.5333	1.24
Guaymas	MEX	27.9000	-110.8667	1.25
Mgarr	MLT	36.0167	14.3000	0.20
Gozo Is.	MLT	36.0667	14.2167	0.20
St. Paul's Bay	MLT	35.9500	14.4000	0.22
Valletta	MLT	35.9000	14.5167	0.22
Marsaxlokk	MLT	35.8167	14.5667	0.22
Maputo	MOZ	-25.9833	32.6000	1.11
Ponta Dobela	MOZ	-26.5167	32.9167	1.21
Inhambane	MOZ	-23.8667	35.3833	1.24
Cap Blanc	MRT	20.7667	-17.0500	0.74
Pointe des Mouettes	MRT	20.8333	-17.0333	0.74
Point Central	MRT	20.8167	-17.0333	0.74
Nouadhibou	MRT	20.9000	-17.0500	0.74
Port de L'Amitie	MRT	18.0000	-16.0333	0.39
Nouakchott	MRT	18.0333	-16.0333	0.39
Budva	MTG	42.2833	18.8500	1.11
Herceg Novi	MTG	42.4500	18.5333	1.17
Zelenika	MTG	42.4500	18.5833	1.24
Bar	MTG	42.0833	19.0833	0.88
Ulcinj	MTG	41.9167	19.2000	0.10
Petrovac	MTG	42.2000	18.9167	0.10
Port Louis	MUS	-20.1500	57.4833	1.15
Luderitz	NAM	-26.6333	15.1500	1.02
Walvis Bay	NAM	-22.9500	14.5000	0.87
Oranjemund	NAM	-28.5667	16.3667	0.85
Poro(NCL)	NCL	-21.3000	165.7167	1.01
Noumea	NCL	-22.2833	166.4333	1.17
Wanganui	NZL	-39.9500	175.0000	1.19
New Plymouth	NZL	-39.0667	174.0833	1.22
Napier	NZL	-39.4833	176.9167	0.97
Gisborne	NZL	-38.6833	178.0333	0.94
Onehunga	NZL	-36.9333	174.7667	0.82
Auckland	NZL	-36.8500	174.8000	0.82
Whakatane	NZL	-37.9500	177.0000	0.80
Tauranga	NZL	-37.6500	176.1667	0.74
Mount Maunganui	NZL	-37.6833	176.2333	0.74
Masirah Is.	OMN	20.6833	58.8667	1.26
Duqm	OMN	19.6833	57.7333	1.26
Callao	PER	-12.0500	-77.1500	1.02
Chancay	PER	-11.6000	-77.2833	0.85
Puerto Bayovar	PER	-5.7833	-81.0500	0.72
La Pampilla	PER	-11.9333	-77.1833	0.50
Ancon	PER	-11.7833	-77.1833	0.50
Atico	PER	-16.2167	-73.7167	0.73
Cerro Azul	PER	-13.0500	-76.5167	0.57

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Conchan	PER	-12.2500	-76.9333	0.54
Oquendo	PER	-11.9667	-77.1167	0.56
San Nicolas(PER)	PER	-15.2333	-75.2333	0.61
San Juan(PER)	PER	-15.3500	-75.1833	0.60
Huarmey	PER	-10.0833	-78.1500	0.72
Ilo	PER	-17.6333	-71.3500	0.83
Paramonga	PER	-10.7000	-77.8333	0.67
Supe	PER	-10.8333	-77.7333	0.67
Negritos	PER	-4.6500	-81.3167	0.61
Talara	PER	-4.5667	-81.2833	0.61
Huacho	PER	-11.1333	-77.6167	0.66
Matarani	PER	-16.9833	-72.1167	0.87
Salaverry	PER	-8.2333	-79.0000	0.75
General San Martin	PER	-13.8333	-76.2667	0.63
Chimbote	PER	-9.0833	-78.6333	0.76
Coisco	PER	-9.0167	-78.6167	0.76
Los Organos	PER	-4.1667	-81.1333	0.71
Cabo Blanco	PER	-4.2667	-81.2500	0.71
Chicama	PER	-7.7000	-79.4167	0.83
Mollendo	PER	-17.0167	-72.0333	0.88
Pacasmayo	PER	-7.4000	-79.6000	0.93
Zorritos	PER	-3.6667	-80.6500	1.09
Eten	PER	-6.9333	-79.8667	1.02
Pimentel	PER	-6.8167	-79.9333	1.05
Punta Lobitos	PER	-4.4500	-81.2667	1.07
Paita	PER	-5.0833	-81.1167	1.18
Porto Santo	PMD	33.0500	-16.3333	0.65
Ponta Delgada(PMD)	PMD	32.8167	-17.0000	0.66
Madeira	PMD	32.6667	-16.9167	0.66
Funchal	PMD	32.6333	-16.9000	0.66
Penuelas	PRI	18.0019	-66.7508	1.27
Kosong(PRK)	PRK	38.6000	128.3500	1.03
Peniche	PRT	39.3667	-9.3833	1.19
San Martinho	PRT	39.5167	-9.1500	1.15
Leixoes	PRT	41.1833	-8.7167	0.79
Cascais	PRT	38.6833	-9.4167	1.23
Sines	PRT	37.9500	-8.8667	1.20
Aveiro	PRT	40.6500	-8.7500	0.55
Figueira da Foz	PRT	40.1500	-8.8667	0.45
Lagos(PRT)	PRT	37.0833	-8.6667	0.45
Praia da Graciosa	PRT	39.0500	-27.9667	0.58
Praia da Vitoria	PRT	38.7333	-27.0500	0.59
Graciosa Is.	PRT	39.0500	-28.0500	0.57
Terceira Is.	PRT	38.7167	-27.2167	0.58
Angra do Heroismo	PRT	38.6500	-27.2167	0.58
Velas	PRT	38.6667	-28.2167	0.55
San Jorge Is.	PRT	38.6667	-28.0500	0.55
Fayal	PRT	38.5833	-28.7000	0.53
Horta	PRT	38.5333	-28.6333	0.53
Corvo Is.	PRT	39.6667	-31.1167	0.51
Flores Is.	PRT	39.5000	-31.2167	0.51

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Portimao	PRT	37.1333	-8.5333	1.10
Albufeira	PRT	37.0833	-8.2500	0.30
Faro	PRT	37.0167	-7.9167	0.24
Olhao	PRT	37.0167	-7.8333	0.24
Pico Is.	PRT	38.4667	-28.3000	0.53
St. Michael's	PRT	37.7333	-25.6667	0.56
Ponta Delgada(AZO)	PRT	37.7333	-25.6667	0.56
Setubal	PRT	38.5000	-8.9167	0.26
Sesimbra	PRT	38.4333	9.1000	0.19
Vila do Porto	PRT	36.9333	-25.1500	0.52
Canical	PRT	32.7333	-16.7333	0.66
Ras al Khafji	SAU	28.4167	48.5833	1.09
Haql	SAU	29.3000	34.9500	1.15
Ras as Saffaniya	SAU	28.0000	48.8000	1.15
Carabane	SEN	12.5500	-16.7000	1.23
Jamestown(SHN)	SHN	-15.9167	-5.7167	0.90
Piran	SVN	45.5333	13.5667	0.94
Izola	SVN	45.5500	13.6667	0.94
Portoroz	SVN	45.5167	13.5833	0.94
Koper	SVN	45.5547	13.7414	0.87
Arwad Is.	SYR	34.8500	35.8500	0.31
Tartous	SYR	34.9000	35.8667	0.31
Lattakia	SYR	35.5167	35.7667	0.42
Borj Islam	SYR	35.6667	35.8000	0.42
Jeble	SYR	35.3500	35.9167	0.68
Banias	SYR	35.2333	35.9333	0.68
Bizerta	TUN	37.2667	9.8833	0.21
Galita Is.	TUN	37.5333	8.9333	0.19
Tabarka	TUN	36.9667	8.7667	0.16
Cap Bon	TUN	37.0833	11.0500	0.14
Kelibia	TUN	36.8333	11.0833	0.14
Rades	TUN	36.8000	10.2333	0.20
La Goulette	TUN	36.8167	10.3000	0.20
Sousse	TUN	35.8333	10.6500	0.20
Ras Dimasse	TUN	35.5833	11.0167	0.20
Tunis	TUN	36.8000	10.2000	1.00
Zarzis	TUN	33.5000	11.1167	0.33
Ajim	TUN	33.7167	10.7333	0.35
Sfax	TUN	34.7333	10.7667	0.36
Gabes	TUN	33.9500	10.0667	0.40
La Skhira	TUN	34.2333	10.0667	0.48
Erdek	TUR	40.4000	27.7833	1.13
Ambarli	TUR	40.9667	28.7000	1.25
Marport	TUR	40.9667	28.6667	1.25
Kumport	TUR	40.9667	28.6833	1.25
Yalova	TUR	40.6667	29.2500	1.12
Eregli(Sea of Marmara)	TUR	40.9667	27.9667	1.14
Yarimca	TUR	40.7333	29.7667	1.10
Tutunciftlik	TUR	40.7500	29.7833	1.10
Igsas	TUR	40.7500	29.7500	1.10
Zeytinburnu	TUR	40.7500	29.7667	1.10

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Derince	TUR	40.7500	29.8167	1.10
Golcuk	TUR	40.7167	29.8000	1.10
Tekirdag	TUR	40.9500	27.5000	1.06
Edincik	TUR	40.3500	27.8667	1.01
Bandirma	TUR	40.3500	27.9667	1.01
Saraylar	TUR	40.6500	27.6667	1.00
Silivri	TUR	41.0500	28.2667	1.11
Gemlik	TUR	40.4333	29.1500	1.08
Uskudar	TUR	41.0167	29.0167	1.07
Diliskelesi	TUR	40.7667	29.5333	1.05
Hereke	TUR	40.7000	29.6167	1.05
Tavsancil	TUR	40.7833	29.5833	1.05
Mudanya	TUR	40.4500	28.8667	1.07
Karabiga	TUR	40.4000	27.3000	0.81
Istanbul	TUR	41.0000	28.9667	1.06
Cekmece	TUR	40.9833	28.5500	1.06
Pendik	TUR	40.9000	29.2500	1.02
Kartal	TUR	40.8833	29.1833	1.02
Karacabey	TUR	40.2333	28.3667	1.03
Darica	TUR	40.7500	29.3833	0.99
Gebze	TUR	40.7667	29.4333	0.99
Tuzla	TUR	40.8092	29.3481	0.99
Haydarpasa	TUR	41.0000	29.0167	0.99
Maltepe	TUR	40.9000	29.1500	0.99
Izmit	TUR	40.7667	29.9167	0.99
Yenikoy	TUR	40.7333	29.9000	0.99
Icdas	TUR	40.4500	27.1333	0.84
Gelibolu	TUR	40.4167	26.6833	0.85
Canakkale	TUR	40.1500	26.4167	0.70
Kepez	TUR	40.1058	26.3781	0.70
Kas	TUR	36.2000	29.6333	0.71
Kabatepe	TUR	40.2000	26.2000	0.49
Edremit	TUR	39.5833	26.9500	0.62
Akcay	TUR	39.5833	26.9000	0.62
Gokceada	TUR	40.2000	25.9000	0.45
Bozcaada	TUR	39.8333	26.0667	0.49
Ayvalik	TUR	39.3167	26.7167	0.54
Dikili	TUR	39.0833	26.8833	0.47
Dortyol	TUR	36.8333	36.2333	0.66
Payas	TUR	36.7500	36.1833	0.66
Antalya	TUR	36.8333	30.6167	0.47
Kusadasi	TUR	37.8667	27.2333	0.36
Camalti	TUR	38.5000	26.8833	0.44
Finike	TUR	36.3000	30.1500	0.37
Nemrut Bay	TUR	38.7500	26.9167	0.50
Cesme	TUR	38.3167	26.3000	0.54
Gokova	TUR	37.0500	28.3667	0.53
Fethiye	TUR	36.6333	29.1000	0.36
Aliaga	TUR	38.8000	26.9833	0.41
Izmir	TUR	38.4333	27.1333	0.45
Alanya	TUR	36.5333	32.0000	0.31

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Gocek	TUR	36.7500	28.9833	0.38
Anamur	TUR	36.0167	32.8167	0.37
Bodrum	TUR	37.0333	27.4167	0.48
Marmaris	TUR	36.8500	28.2667	0.40
Gulluk	TUR	37.2500	27.6333	0.38
Mersin	TUR	36.8000	34.6333	0.38
Yumurtalik	TUR	36.7667	35.7500	0.42
Sugozu	TUR	36.8667	35.9500	0.45
Ceyhan	TUR	36.8833	35.9333	0.45
Toros Gubre	TUR	36.9167	35.9833	0.45
Tasucu	TUR	36.2333	33.9833	0.64
Iskenderun	TUR	36.6000	36.1667	0.80
Jinmen Is.	TWN	24.4500	118.3833	0.56
Taipei	TWN	25.1667	121.3500	0.82
Taichung	TWN	24.2833	120.5000	1.02
Hualien	TWN	24.0000	121.6333	1.04
Tainan	TWN	23.1000	120.0833	1.13
Makung	TWN	23.5500	119.5500	1.15
An Ping	TWN	22.9833	120.1333	1.15
Kaohsiung	TWN	22.6167	120.2500	1.20
Hsinyuan	TWN	22.5333	120.4333	1.22
Tamsui	TWN	25.1667	121.4167	0.82
Midway Islands	UMI	28.2167	-177.3500	0.94
La Paloma	URY	-34.6500	-54.1500	1.12
Punta del Este	URY	-34.9667	-54.9500	0.64
Maldonado	URY	-34.9500	-54.9500	0.64
Piriapolis	URY	-34.8667	-55.2667	0.67
Montevideo	URY	-34.9000	-56.2667	0.81
Juan Lacaze	URY	-34.4333	-57.4167	1.02
Colonia	URY	-34.4667	-57.8500	0.91
Nueva Palmira	URY	-33.8833	-58.4167	0.76
Sparrow's Point	USA	39.20	-76.47	1.24
Moss Landing	USA	36.8000	-121.7833	1.06
Gaviota	USA	34.4667	-120.2333	1.22
Elwood	USA	34.4333	-119.8833	1.00
Carpinteria	USA	34.4333	-119.6167	0.89
Santa Barbara	USA	34.4000	-119.6833	0.94
Milford(DE USA)	USA	38.9000	-75.4167	1.27
Estero Bay	USA	35.4000	-120.8833	0.87
Morro Bay	USA	35.3667	-120.8500	1.14
Avila	USA	35.1667	-120.7333	0.90
Port San Luis	USA	35.1667	-120.7500	0.90
Los Angeles	USA	33.7167	-118.2667	0.99
San Pedro(CA USA)	USA	33.7167	-118.2500	0.99
Oceanside	USA	33.2000	-117.3833	0.93
Ventura	USA	34.2667	-119.3000	0.73
Port Hueneme	USA	34.1525	-119.2036	1.11
Newport News	USA	36.9667	-76.4167	1.09
Norfolk(USA)	USA	36.8500	-76.3167	1.07
Portsmouth(VA USA)	USA	36.8333	-76.2833	1.06
Chesapeake	USA	36.7833	-76.3000	1.06

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Newport Beach	USA	33.6167	-117.9167	1.10
Manteo	USA	35.9000	-75.5833	0.52
San Clemente	USA	33.4333	-117.6000	0.49
Marina del Rey	USA	33.9667	-118.4333	0.87
El Segundo	USA	33.9000	-118.4500	0.56
Wilmington(NC USA)	USA	34.2333	-77.9500	0.55
Long Beach	USA	33.7500	-118.2167	0.49
Wilmington(CA USA)	USA	33.7667	-118.2667	0.49
Pass Christian	USA	30.3000	-89.2333	0.77
Moss Point	USA	30.4167	-88.5167	0.77
Pascagoula	USA	30.3500	-88.5667	0.77
Escatawpa	USA	30.4333	-88.5333	0.77
Gulfport	USA	30.3500	-89.0833	0.82
Pearlington	USA	30.2333	-89.6000	0.84
Ocean Springs	USA	30.3833	-88.8167	0.79
Mobile	USA	30.6833	-88.0500	0.76
Biloxi	USA	30.4000	-88.9000	0.81
Theodore	USA	30.5333	-88.1833	0.76
Madisonville	USA	30.4167	-90.1500	0.85
Slidell	USA	30.2833	-89.8167	0.85
Lake Charles	USA	30.2167	-93.2500	0.79
Brunswick	USA	31.1333	-81.4833	0.50
Sulphur	USA	30.2167	-93.4000	0.79
Beaufort	USA	32.4333	-80.6667	0.56
Port Royal(USA)	USA	32.3833	-80.7000	0.56
Loreauville	USA	30.1333	-91.6333	0.82
Jeanerette	USA	29.9000	-91.6667	0.81
Iberia(USA)	USA	30.0000	-91.8500	0.81
Pierre Part	USA	29.9500	-91.1833	0.80
Erath	USA	29.9500	-92.0167	0.82
Morgan City	USA	29.7000	-91.2167	0.80
Houma	USA	29.5833	-90.7167	0.76
Amelia	USA	29.6667	-91.1000	0.80
Patterson	USA	29.6667	-91.3333	0.80
Orange	USA	30.1000	-93.7333	0.82
Magpetco	USA	30.0333	-93.9833	0.82
Lockport	USA	29.6667	-90.5667	0.77
Bourg	USA	29.5500	-90.6000	0.77
Beaumont	USA	30.0833	-94.1000	0.83
Southport(USA)	USA	33.9167	-78.0000	0.48
Dulac	USA	29.3833	-90.7000	0.78
Port Arthur	USA	29.8667	-93.9167	0.83
Port Neches	USA	29.9833	-93.9333	0.83
Smith's Bluff	USA	30.0000	-93.9833	0.83
Larose	USA	29.5500	-90.3833	0.82
Cut Off	USA	29.5167	-90.3333	0.82
Chauvin	USA	29.4333	-90.5833	0.78
Galliano	USA	29.4333	-90.3000	0.83
Lafitte	USA	29.6500	-90.1000	0.84
Bayport	USA	29.6167	-95.0167	0.86
Kemah	USA	29.5333	-95.0167	0.86

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
San Leon	USA	29.4833	-94.9167	0.82
St. Augustine	USA	29.8833	-81.3167	1.00
Galveston	USA	29.3000	-94.8000	0.84
Texas City	USA	29.3667	-94.8833	0.84
Kings Bay(USA)	USA	30.8167	-81.5167	0.67
Fernandina	USA	30.6833	-81.4667	0.67
Morehead City	USA	34.7167	-76.7000	0.65
Sabine	USA	29.7167	-93.8667	0.94
Michoud	USA	30.0000	-89.9167	1.04
Bienville	USA	30.2167	-89.5833	1.04
South Louisiana	USA	30.1000	-90.4833	1.12
Freeport(Texas)	USA	28.9333	-95.3000	0.78
Cameron	USA	29.7833	-93.3167	1.00
Rockport(TX)	USA	28.0167	-97.0333	0.84
Lahaina	USA	20.8667	-156.6833	1.08
Ingleside	USA	27.8333	-97.2333	0.86
Aransas Pass	USA	27.8833	-97.1333	0.86
Harbor Is.	USA	27.8667	-97.0667	0.86
Port Aransas	USA	27.8333	-97.0667	0.86
Bayou La Batre	USA	30.4000	-88.2500	1.09
Coden	USA	30.3667	-88.2333	1.09
Fowl River	USA	30.4500	-88.1667	1.09
Port Isabel(USA)	USA	26.0667	-97.2000	1.16
Pensacola	USA	30.4167	-87.2167	1.02
Golden Meadow	USA	29.3667	-90.2667	1.14
Apalichicola	USA	29.7167	-84.9833	0.95
Daytona Beach	USA	29.1833	-81.0167	0.96
Boca Grande(USA)	USA	26.7167	-82.2500	1.00
Port Fourchon	USA	29.0833	-90.2167	1.16
South Pass	USA	29.0000	-89.1667	1.12
Port Eads	USA	29.0167	-89.1667	1.12
Port Allen(HI USA)	USA	21.9000	-159.6000	1.27
Clearwater	USA	27.9667	-82.7833	1.08
Largo	USA	27.9167	-82.7833	1.08
St. Petersburg(USA)	USA	27.7833	-82.6333	1.12
La Guaira	VEN	10.6000	-66.9333	1.10
Hongay	VNM	20.9500	107.0500	1.00
Cai Lan	VNM	20.9667	107.0333	1.00
Cam Pha	VNM	21.0167	107.3667	1.10
Thanh Hoa	VNM	19.8167	105.8000	1.24
Nghi Son	VNM	19.3167	105.8000	1.27
Vung Ang	VNM	18.9167	106.4000	1.29
Cape of Good Hope	ZAF	-34.3500	18.4667	1.19
Port Nolloth	ZAF	-29.2500	16.8667	1.06
Simonstown	ZAF	-34.1833	18.4333	0.80
Mossel Bay	ZAF	-34.1833	22.1667	0.59
Port Elizabeth	ZAF	-33.9667	25.6333	0.52
Bird Is.	ZAF	-33.8167	26.2833	0.54
Ngqura	ZAF	-33.7833	25.6833	0.47
East London	ZAF	-33.0333	27.9167	0.81
Durban	ZAF	-29.8667	31.0333	1.02



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Richards Bay	ZAF	-28.8000	32.1000	1.05
Gaza		31.5000	34.4500	0.78

*Appendix F. List of global ports that have highest environmental similarity to Saint John. NIS originating from these ports have the highest potential for survival if introduced at Saint John.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Camarones	ARG	-44.4500	-65.7000	1.26
Caleta Cordova	ARG	-45.7167	-67.3500	1.24
Mar del Plata	ARG	-38.0331	-57.5447	1.28
Campana	ARG	-34.1567	-58.9664	0.85
Zarate	ARG	-34.0911	-59.0206	0.85
Atucha	ARG	-33.9569	-59.2511	0.83
Lima(ARG)	ARG	-33.9767	-59.1872	0.83
Puerto Madryn	ARG	-42.7386	-65.0472	1.16
Escobar	ARG	-34.3500	-58.7667	0.86
San Fernando(ARG)	ARG	-34.4500	-58.5333	0.83
Tigre	ARG	-34.4333	-58.5500	0.83
Buenos Aires	ARG	-34.5903	-58.3775	0.82
Punta Colorada	ARG	-41.7000	-65.0333	1.18
Puerto Rosales	ARG	-38.9167	-62.0667	1.16
Puerto Belgrano	ARG	-38.9000	-62.1000	1.16
San Antonio Este	ARG	-40.8169	-64.7519	1.19
Puerto Galvan	ARG	-38.7833	-62.3000	0.66
Bahia Blanca	ARG	-38.7372	-62.2897	0.30
Ensenada(ARG)	ARG	-34.8667	-57.9000	0.66
La Plata	ARG	-34.8725	-57.9069	0.66
Ibicuy	ARG	-33.7428	-59.1681	0.91
Triabunna	AUS	-42.4500	147.9333	1.02
Macquarie Hbr.	AUS	-42.1667	145.3333	1.16
Georgetown(AUS)	AUS	-41.1000	146.8167	0.82
Bell Bay	AUS	-41.1333	146.8667	0.83
Inspection Head	AUS	-41.1500	146.8167	0.82
Port Welshpool	AUS	-38.7000	146.4500	0.79
Barry Beach	AUS	-38.7167	146.3833	0.79
Hastings(AUS)	AUS	-38.2953	145.2131	0.58
Point Wilson	AUS	-38.1000	144.5000	0.85
Adelaide	AUS	-34.8503	138.5669	0.72
Geelong	AUS	-38.1344	144.3492	1.12
Kincumber South	AUS	-33.4667	151.3667	0.67
Melbourne	AUS	-37.8311	144.9178	1.10
Botany Bay	AUS	-33.9653	151.2244	0.80
Port Augusta	AUS	-32.5000	137.7833	0.89
Sydney	AUS	-33.8575	151.2064	0.85
Newcastle(AUS)	AUS	-32.9053	151.7636	0.82
Hexham(AUS)	AUS	-32.8167	151.6667	0.90
Caboolture	AUS	-27.0833	152.9500	1.03
Brisbane	AUS	-27.4222	153.1111	1.23
Baku	AZE	40.3783	49.8489	0.56

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bruges	BEL	51.2219	3.2208	1.03
Oostkamp	BEL	51.1500	3.2500	1.06
Varna	BGR	43.2000	27.9167	0.60
Balchik	BGR	43.3833	28.1833	0.58
Lesport	BGR	43.1667	27.8167	0.51
Nessebar	BGR	42.6667	27.7333	0.34
Pomorie	BGR	42.5333	27.6500	0.39
Sozopol	BGR	42.4000	27.6833	0.41
Bourgas	BGR	42.5000	27.4833	0.37
Rio Grande(BRA)	BRA	-32.1667	-52.0833	0.42
Pelotas	BRA	-31.7500	-52.2500	0.86
Barao de Teffe	BRA	-25.4333	-48.5333	1.25
Roberts Bank	CAN	49.0167	-123.1333	1.25
Richmond(CAN)	CAN	49.1500	-123.1667	1.19
Sechelt	CAN	49.4667	-123.7500	1.17
Fraser River Port	CAN	49.2000	-122.9167	1.11
Vancouver(CAN)	CAN	49.2833	-123.1167	1.10
Concepcion	CHL	-36.8333	-73.0500	1.14
Bayuquan	CHN	40.2667	122.1000	1.23
Beiliang	CHN	38.9667	121.8000	1.23
Penglai	CHN	37.8167	120.7167	1.19
Yantai	CHN	37.5667	121.4333	1.25
Weihai	CHN	37.5000	122.1500	1.16
Shidao	CHN	36.8833	122.4667	1.08
Longyan	CHN	37.4000	122.6167	1.08
Rongcheng	CHN	37.1500	122.4000	1.16
Zhangjiabu	CHN	37.0167	122.1833	0.77
Tangshan	CHN	39.2167	119.0167	0.99
Laizhou	CHN	37.4167	119.9500	1.19
Longkou	CHN	37.6833	120.3000	1.22
Lianyungang	CHN	34.7333	119.4500	1.13
Rizhao	CHN	35.4833	119.4833	1.22
Yingkou	CHN	40.6833	122.2333	1.17
Lanshan	CHN	35.0833	119.3500	1.13
Huanghua	CHN	38.3667	117.3333	0.87
Tangu	CHN	39.0000	117.6500	0.86
Tianjin	CHN	39.1000	117.1667	0.87
Qingdao	CHN	36.0833	120.3000	1.20
Huangdao	CHN	36.0500	120.2167	1.20
Qianwan	CHN	35.9833	120.1833	1.19
Shijiusuo	CHN	35.3833	119.5667	1.12
Xingang	CHN	38.9833	117.7500	0.87
Dandong	CHN	40.1333	124.4000	1.29
Chongming	CHN	31.6167	121.3667	0.81
Luojing	CHN	31.4500	121.3000	0.81
Dongying	CHN	37.4500	118.4667	0.90
Shanghai	CHN	31.2500	121.5000	0.82
Nanhui	CHN	31.0500	121.7500	0.85
Kunshan	CHN	31.3667	120.9333	1.05
Taicang	CHN	31.4500	121.0833	1.05
Chuansha	CHN	31.2000	121.6833	1.03

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Jiaxing	CHN	30.8500	120.8667	1.14
Fengxian	CHN	30.9167	121.4333	1.08
Caojing	CHN	30.7667	121.4000	1.13
Beilun	CHN	29.9333	121.8833	1.15
Pinghu	CHN	30.6833	121.0000	1.15
Jinshan	CHN	30.7167	121.3167	1.07
Haimen	CHN	28.6833	121.4333	0.60
Zhenhai	CHN	29.9667	121.7000	1.17
Dafeng	CHN	33.2000	120.4167	0.84
Zhapu	CHN	30.5833	121.0833	1.14
Xiashi	CHN	30.5333	120.6833	1.18
Hangzhou	CHN	30.2500	120.1667	1.19
Majishan	CHN	30.6833	122.4167	1.16
Xiaoshan	CHN	30.1500	120.2500	1.22
Yancheng	CHN	33.3833	120.1167	1.04
Huangyan	CHN	28.6333	121.2500	0.78
Ningbo	CHN	29.8667	121.5500	0.79
Jiaojiang	CHN	28.6500	121.4167	0.81
Dongtai	CHN	32.8333	120.3000	1.20
Linhai	CHN	28.8500	121.1167	1.11
Wenzhou	CHN	28.0333	120.6500	0.98
Ningde	CHN	26.6500	119.5167	0.99
Fuqing	CHN	25.7167	119.3500	1.09
Xiabaishi	CHN	26.8167	119.6667	1.22
Cuxhaven	DEU	53.8667	8.7000	1.29
Emden	DEU	53.3500	7.1833	1.26
Ditzum	DEU	53.3167	7.2667	1.20
Wismar	DEU	53.9000	11.4667	1.29
Travemunde	DEU	53.9667	10.9000	1.29
Schlutup	DEU	53.8833	10.7833	1.29
Oldersum	DEU	53.3167	7.3333	1.27
Frederikssund	DNK	55.8333	12.0500	1.28
Ostby	DNK	55.7333	12.0333	1.28
Frederiksvaerk	DNK	55.9667	12.0167	1.27
Rodbyhavn	DNK	54.6500	11.3500	1.21
Damietta	EGY	31.3833	31.8000	1.24
Ortigueira	ESP	43.6833	-7.8333	0.98
Bilbao	ESP	43.3106	-3.0286	0.81
Cillero	ESP	43.6833	-7.6000	1.15
Requejada	ESP	43.3333	-4.0833	0.65
Vivero	ESP	43.6667	-7.6000	1.01
Camarinas	ESP	43.1167	-9.1833	1.06
Santa Eugenia de Riveira	ESP	42.5500	-8.9833	0.82
Muros	ESP	42.7500	-9.0167	0.82
Sada	ESP	43.3667	-8.2500	0.84
Caraminal	ESP	42.6000	-8.9333	0.74
Corcubion	ESP	42.9500	-9.1833	0.85
Cee	ESP	42.9500	-9.1667	0.85
Ferrol	ESP	43.4667	-8.2667	0.78
Astillero	ESP	43.4000	-3.8167	0.68
Guernica	ESP	43.3167	-2.6667	0.54

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Fene	ESP	43.4667	-8.1667	0.71
Fuenterrabia	ESP	43.3667	-1.8000	0.50
Cangas	ESP	42.2667	-8.7667	0.55
Orio	ESP	43.2667	-2.1167	0.60
Beasain	ESP	43.0500	-2.1833	0.90
Marin	ESP	42.4000	-8.7000	0.58
Villagarcia	ESP	42.6000	-8.7667	0.57
Vigo	ESP	42.2333	-8.6667	0.62
Pontevedra	ESP	42.4167	-8.6500	0.97
San Javier	ESP	37.8000	-0.8333	0.74
San Fernando(ESP)	ESP	36.4667	-6.2000	0.93
Puerto de Santa Maria	ESP	36.6000	-6.2333	0.99
Puerto Real	ESP	36.5333	-6.1833	0.89
Huelva	ESP	37.2667	-6.9167	0.90
Bonanza	ESP	36.8000	-6.3333	0.86
Etaples	FRA	50.5167	1.6333	1.07
Paluden	FRA	48.5833	-4.5167	1.22
Brest	FRA	48.3833	-4.4833	1.11
Benodet	FRA	47.8833	-4.1167	0.97
St. Valery sur Somme	FRA	50.1833	1.6500	0.99
Quimper	FRA	47.9667	-4.1167	0.96
Pontrieux	FRA	48.7000	-3.1667	0.98
Keroman	FRA	47.7333	-3.3667	0.90
Corniguel	FRA	47.9500	-4.1167	0.94
Hennebont	FRA	47.8000	-3.2667	0.86
Saint Maclou	FRA	49.3667	0.4167	1.04
Noyelles	FRA	50.1833	1.7167	1.13
La Rochelle	FRA	46.1500	-1.1500	1.25
Vannes	FRA	47.6500	-2.7500	0.78
Belz	FRA	47.6667	-3.1667	0.78
Caen	FRA	49.1833	-0.3500	1.09
La Pallice	FRA	46.1667	-1.2333	1.23
Lorient	FRA	47.7500	-3.3667	0.90
Arcachon	FRA	44.6667	-1.1667	0.69
La Teste	FRA	44.6167	-1.1500	0.71
Abbeville	FRA	50.1000	1.8500	1.26
Montoir	FRA	47.3333	-2.1333	0.76
Gujan-Mestras	FRA	44.6333	-1.0500	0.48
Le Verdon	FRA	45.5500	-1.0833	0.49
Royan	FRA	45.6167	-1.0333	0.51
Landerneau	FRA	48.4333	-4.2500	1.28
Hendaye	FRA	43.3667	-1.7667	0.59
Marans	FRA	46.3167	-1.0333	0.60
Donges	FRA	47.3000	-2.0667	0.86
Rochefort	FRA	45.9333	-0.9667	0.60
Surgeres	FRA	46.1000	-0.7333	0.78
Tonnay Charente	FRA	45.9500	-0.8833	0.74
Paimboeuf	FRA	47.2833	-2.0333	1.06
Redon	FRA	47.6500	-2.0667	1.20
Fontenay le Comte	FRA	46.4667	-0.7833	0.98
Bayonne	FRA	43.5000	-1.4833	0.62

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Cordemais	FRA	47.2667	-1.8833	1.22
Pauillac	FRA	45.2000	-0.7500	1.15
Blaye	FRA	45.1167	-0.6667	1.27
St. Louis du Rhone	FRA	43.3833	4.8167	0.85
Salin de Giraud	FRA	43.4000	4.7333	0.98
Cantley	GBR	52.5667	1.5333	1.20
Garston	GBR	53.3500	-2.9000	1.24
Ipswich	GBR	52.0500	1.1667	1.17
Pembroke	GBR	51.6928	-4.9506	1.24
Hull	GBR	53.7500	-0.3000	1.21
Boston(GBR)	GBR	52.9667	-0.0167	1.21
Bromborough	GBR	53.3500	-2.9833	1.22
Eastham	GBR	53.3500	-2.9667	1.22
Ellesmere Port	GBR	53.2833	-2.9000	1.18
Fingringhoe	GBR	51.8333	0.9667	1.08
Colchester	GBR	51.8833	0.9167	1.13
Fosdyke	GBR	52.8667	-0.0333	1.21
Burnham on Crouch	GBR	51.6167	0.8167	1.07
Liverpool	GBR	53.4167	-3.0000	1.25
Gweek	GBR	50.0833	-5.2000	1.23
Appledore	GBR	51.0500	-4.2000	1.17
Coryton	GBR	51.5167	0.5333	1.06
Otterham Quay	GBR	51.3833	0.6333	1.04
Rainham(Kent)	GBR	51.3833	0.6167	1.04
Penryn	GBR	50.1667	-5.1000	1.20
Gillingham	GBR	51.4833	0.5500	1.04
Shell Haven	GBR	51.5000	0.5167	1.04
Southampton	GBR	50.9000	-1.4000	1.06
Ince	GBR	53.2833	-2.8500	1.17
Stanlow	GBR	53.2833	-2.8667	1.17
Creeksea	GBR	51.6167	0.7833	1.04
Sheerness	GBR	51.4333	0.7333	1.03
Cliffe	GBR	51.4833	0.4667	1.07
New Holland	GBR	53.7000	-0.3500	1.26
Barrow on Humber	GBR	53.6833	-0.3833	1.26
Maldon	GBR	51.7333	0.6667	1.11
Lydney	GBR	51.7167	-2.5333	1.19
Connah's Quay	GBR	53.2333	-3.0667	1.26
Totnes	GBR	50.4333	-3.6833	1.16
Bee Ness	GBR	51.4333	0.6500	1.02
Oakham Ness	GBR	51.4167	0.6500	1.02
Queenborough	GBR	51.4167	0.7333	1.02
Barton on Humber	GBR	53.7000	-0.4333	1.28
Hessle	GBR	53.7167	-0.4333	1.28
Bedhampton	GBR	50.8333	-1.0000	0.99
Kingsnorth	GBR	51.4167	0.6000	1.02
Isle of Grain	GBR	51.4333	0.7000	1.01
Thamesport	GBR	51.4333	0.7000	1.01
Norwich	GBR	52.6333	1.2833	1.21
Weston Church Wall	GBR	53.3167	-2.7500	1.27
Weston Point	GBR	53.3333	-2.7667	1.27

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Yelland	GBR	51.0667	-4.1500	1.18
Rochford	GBR	51.5833	0.7333	1.03
Port Talbot	GBR	51.5833	-3.7167	1.25
Gosport	GBR	50.8000	-1.1167	0.97
Portsmouth	GBR	50.8000	-1.1000	0.97
Hoo	GBR	51.4167	0.5667	1.04
Chatham	GBR	51.4000	0.5500	1.04
Fareham	GBR	50.8500	-1.1833	1.04
Exeter	GBR	50.7167	-3.5167	1.20
Battlesbridge	GBR	51.6167	0.5667	1.07
Sutton Bridge	GBR	52.7667	0.2000	1.26
Redbridge	GBR	50.9333	-1.4667	1.03
Eling	GBR	50.9000	-1.4667	1.03
Barnstaple	GBR	51.0833	-4.0667	1.22
Bird Port	GBR	51.5667	-2.9667	1.21
Newport	GBR	51.5667	-2.9833	1.21
Chepstow	GBR	51.6500	-2.6667	1.20
Grovehurst Jetty	GBR	51.3667	0.7667	1.06
Milton Creek	GBR	51.3667	0.7667	1.06
Sharpness	GBR	51.7167	-2.4833	1.12
Stangate Creek	GBR	51.3833	0.7000	1.06
Bideford	GBR	51.0167	-4.2000	1.19
Topsham	GBR	50.6833	-3.6333	1.24
Bridgwater	GBR	51.1667	-3.0000	1.25
Bristol	GBR	51.4500	-2.6333	1.22
Tilbury	GBR	51.4500	0.3333	1.17
Dunball	GBR	51.1667	-2.9833	1.20
Ridham Dock	GBR	51.3833	0.7667	1.12
Sittingbourne	GBR	51.3500	0.7333	1.12
Rochester	GBR	51.4000	0.5000	1.28
Sukhumi	GEO	43.1667	41.0333	0.59
Batumi	GEO	41.6500	41.6500	0.07
Poti	GEO	42.1500	41.6500	0.09
Volos	GRC	39.3500	22.9500	0.16
Achladi	GRC	38.8833	22.8167	0.22
Koropi	GRC	39.2833	23.1333	0.30
Amaliapolis	GRC	39.1667	22.8667	0.31
Stylis	GRC	38.9000	22.6167	0.81
Ayia Marina(Greece)	GRC	38.8833	22.5833	0.81
Oropos	GRC	38.3167	23.8000	0.42
Aghios Konstantinos	GRC	38.7500	22.8667	0.64
Milaki	GRC	38.3667	24.0667	0.50
Aliveri	GRC	38.3833	24.0500	0.50
Amfilochia	GRC	38.8667	21.1667	0.57
Levkandi	GRC	38.4167	23.6833	0.92
Chalkis	GRC	38.4500	23.6000	0.91
Avlis	GRC	38.4000	23.6333	0.91
Tragana	GRC	38.6667	23.1000	1.24
Maslenica	HRV	44.2167	15.5333	0.98
Plomin	HRV	45.1333	14.2000	0.38
Rasa	HRV	45.0333	14.0667	0.30

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tar	HRV	45.3167	13.6000	0.46
Sv. Mikula	HRV	44.9833	14.0833	0.24
Pula	HRV	44.8833	13.8333	0.71
Budava	HRV	44.9000	13.9833	0.77
Metkovic	HRV	43.0500	17.6500	0.74
Ballylongford	IRL	52.5500	-9.4667	1.29
Courtmacsherry	IRL	51.6333	-8.7167	1.27
Now Shahr	IRN	36.6333	51.5000	0.64
Bandar Anzali	IRN	37.4333	49.4833	0.77
Neka	IRN	36.6000	53.3167	0.88
Amirabad	IRN	36.8500	53.3167	1.14
Cesenatico	ITA	44.2000	12.4000	1.26
Marano	ITA	45.4333	12.3500	1.21
Venice	ITA	45.4333	12.3333	1.21
Pellestrina	ITA	45.2667	12.3000	1.21
Chioggia	ITA	45.2167	12.2833	1.21
Porto Levante	ITA	45.0667	12.3667	1.21
Porto Garibaldi	ITA	44.6833	12.2333	1.22
Ravenna	ITA	44.4167	12.4500	1.23
Rimini	ITA	44.0667	12.5833	1.25
Sarzana	ITA	44.1167	9.9667	0.08
Casale sul Sile	ITA	45.6000	12.3167	0.68
Pisa	ITA	43.7167	10.4000	0.32
Porto Nogaro	ITA	45.8167	13.2333	0.61
San Dona di Piave	ITA	45.6333	12.5500	0.81
Torviscosa	ITA	45.8333	13.2833	0.69
Santa Giusta	ITA	39.8833	8.6167	0.85
Donada	ITA	45.0500	12.2167	1.24
Limite	ITA	43.7167	10.9500	1.05
Rome	ITA	41.9000	12.5000	0.95
Ofunato	JPN	38.9833	141.7500	1.28
Okuma	JPN	37.3833	140.9833	1.25
Tomioka	JPN	37.3333	141.0000	1.25
Hirono	JPN	37.2333	141.0167	1.25
Fukushima	JPN	41.4667	140.2667	1.15
Haramichi	JPN	37.6333	140.9667	1.26
Ishinomaki	JPN	38.4167	141.3000	1.28
Shiogama	JPN	38.3167	141.0333	1.28
Sendai	JPN	38.2667	141.0500	1.28
Sendai-Shiogama	JPN	38.2833	141.0333	1.28
Soma	JPN	37.8333	140.9667	1.25
Kuroshima	JPN	37.2667	136.7333	1.26
Hikari	JPN	33.9500	131.9333	1.06
Kasado	JPN	33.9500	131.7833	1.06
Tsuruga	JPN	35.6667	136.0833	1.27
Saganoseki	JPN	33.2500	131.8667	1.11
Seki Saki	JPN	33.2667	131.9000	1.11
Hitachi	JPN	36.4833	140.6333	1.24
Usuki	JPN	33.1333	131.8167	1.12
Tsukumi	JPN	33.0833	131.8667	1.12
Nagasu	JPN	33.5833	131.3667	1.09

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Miyazu	JPN	35.5833	135.2167	0.64
Kashiwazaki	JPN	37.3667	138.5500	1.27
Nagahama	JPN	33.6167	132.4833	1.20
Tokuyama	JPN	34.0000	131.8000	1.16
Nakanoseki	JPN	34.0000	131.5667	1.16
Niigata	JPN	37.9500	139.0667	1.28
Kamo	JPN	34.8500	138.7833	1.22
Yoshida	JPN	33.2667	132.5333	1.23
Uwajima	JPN	33.2167	132.5500	1.23
Kashima	JPN	35.9333	140.7000	1.23
Hagi	JPN	34.4000	131.4000	1.19
Mihara	JPN	34.3833	133.1000	1.20
Itozaki	JPN	34.3833	133.1000	1.20
Owase	JPN	34.0667	136.2167	1.19
Otake	JPN	34.2000	132.2000	1.20
Hinase	JPN	34.7167	134.2500	1.05
Nanao	JPN	37.1000	137.0333	1.15
Shodoshima	JPN	34.5000	134.2500	1.08
Kannoura	JPN	33.5833	134.3000	1.22
Toyama Shinko	JPN	36.8000	137.0833	1.14
Fushiki	JPN	36.7833	137.0500	1.14
Fushiki-Toyama	JPN	36.7667	137.0833	1.14
Mitajiri	JPN	34.0167	131.6000	1.19
Choshi	JPN	35.7333	140.6833	1.23
Hamada	JPN	34.8833	132.0333	1.23
Toyama	JPN	36.7500	137.2333	1.15
Ebisu	JPN	38.0833	139.4333	1.16
Esaki	JPN	34.6500	131.6500	1.11
Niigata-Higashi	JPN	38.0000	139.2333	1.17
Fukui	JPN	36.2167	136.1333	1.28
Himekawa	JPN	37.0333	137.8500	1.16
Tokai	JPN	36.4500	140.5833	1.26
Nakaminato	JPN	36.3500	140.6333	1.26
Kure	JPN	34.2333	132.5500	1.21
Hiro	JPN	34.2167	132.6167	1.21
Mitsukoshima	JPN	34.1833	132.5167	1.21
Tsukama	JPN	35.0000	138.5167	1.25
Takuma	JPN	34.2500	133.7000	1.11
Akitsu	JPN	34.3167	132.8167	1.20
Ieshima	JPN	34.6667	134.5000	1.06
Senzaki	JPN	34.4000	131.2000	1.20
Honai	JPN	33.4667	132.3833	1.25
Yawatahama	JPN	33.4500	132.4000	1.25
Arari	JPN	34.8167	138.7500	1.23
Shimizu	JPN	35.0167	138.5333	1.26
Kanazawa	JPN	36.6167	136.6000	1.29
Numakuma	JPN	34.3667	133.3000	1.22
Tsuneishi	JPN	34.3667	133.2833	1.22
Matsunaga	JPN	34.4167	133.2500	1.22
Mukaishima	JPN	34.3833	133.2000	1.22
Onomichi	JPN	34.4000	133.1833	1.22



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Hitachinaka	JPN	36.4167	140.4167	0.58
Tsuiyama	JPN	35.6333	134.8167	0.60
Hiketa	JPN	34.2167	134.4000	1.17
Ujina	JPN	34.3500	132.4667	1.22
Susaki	JPN	33.3833	133.3000	1.25
Habu	JPN	34.2833	133.1833	1.21
Ajisu	JPN	34.0000	131.3667	1.22
Aioi	JPN	34.7667	134.4667	1.17
Ako	JPN	34.7333	134.3833	1.17
Naoshima	JPN	34.4500	134.0000	1.10
Honura	JPN	34.4500	134.0000	1.10
Takamatsu	JPN	34.3500	134.0500	1.10
Toyo	JPN	33.9167	133.0667	1.20
Saijo	JPN	33.9167	133.1667	1.20
Tateyama	JPN	35.0000	139.8667	1.26
Kikuma	JPN	34.0333	132.8333	1.15
Kinoe	JPN	34.2167	132.9000	1.15
Namikata	JPN	34.1167	132.9667	1.15
Yutaka	JPN	34.1667	132.8333	1.15
Onishi	JPN	34.0500	132.9167	1.15
Hashihama	JPN	34.1000	132.9667	1.15
Iwagi	JPN	34.2333	133.1333	1.22
Saizaki	JPN	34.3333	133.0333	1.22
Shigei	JPN	34.3333	133.1333	1.22
Setoda	JPN	34.3000	133.1000	1.22
Yanai	JPN	33.9500	132.1333	1.24
Hirao	JPN	33.9000	132.0500	1.24
Saiki	JPN	32.9667	131.9167	1.26
Fukuyama	JPN	34.4333	133.4500	1.20
Kasaoka	JPN	34.5000	133.5000	1.20
Kudamatsu	JPN	34.0000	131.8500	1.20
Yoshiumi	JPN	34.1333	133.0333	1.15
Kinoura	JPN	34.2000	133.1333	1.15
Imabari	JPN	34.0667	133.0167	1.15
Saga	JPN	34.0667	133.0833	1.15
Awaji	JPN	34.5667	135.0000	1.21
Akashi	JPN	34.6500	135.0000	1.21
Sakito	JPN	33.0167	129.5500	1.26
Sakaide	JPN	34.3333	133.8500	1.18
Uchinomi	JPN	34.4667	134.3167	1.12
Hiroshima	JPN	34.3333	132.4500	1.23
Etajima	JPN	34.2333	132.4667	1.23
Oshima	JPN	33.4667	129.5333	1.26
Hososhima	JPN	32.4500	131.6667	1.28
Omishima	JPN	34.2500	133.0000	1.23
Takehara	JPN	34.3167	132.9167	1.24
Higashino	JPN	34.2500	132.9000	1.24
Osaki	JPN	34.2333	132.8667	1.24
Usunoura	JPN	33.2000	129.5833	1.27
Ainoura	JPN	33.1833	129.6500	1.27
Uno	JPN	34.4833	133.9500	1.20

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Hibi	JPN	34.4500	133.9333	1.20
Tamano	JPN	34.4833	133.9333	1.20
Aboshi	JPN	34.7667	134.6000	1.19
Himeji	JPN	34.7667	134.6333	1.19
Hirohata	JPN	34.7667	134.6167	1.19
Shikama	JPN	34.7833	134.6667	1.19
Kunisaki	JPN	33.5833	131.7167	1.23
Sukumo	JPN	32.9167	132.7167	1.26
Kanda	JPN	33.8000	131.0000	1.19
Tanoura	JPN	33.9667	130.9833	1.19
Ube	JPN	33.9333	131.2000	1.19
Katagami	JPN	34.7167	134.2167	0.60
Niihama	JPN	33.9833	133.2833	1.16
Tagonoura	JPN	35.1333	138.7000	1.29
Numazu	JPN	35.1333	138.8333	1.29
Nakajima	JPN	33.9000	132.7333	1.26
Hojo	JPN	33.9667	132.7667	1.26
Hannan	JPN	34.4667	135.3500	1.22
Kishiwada	JPN	34.4667	135.3667	1.22
Nandan	JPN	34.2333	134.7000	1.17
Oppama	JPN	35.5667	135.2500	1.23
Tsuna	JPN	34.4167	134.9000	1.15
Sumoto	JPN	34.3333	134.8833	1.15
Uchiura	JPN	35.5333	135.5000	1.22
Takahama	JPN	35.5000	135.5333	1.22
Sakaiminato	JPN	35.5333	133.2500	1.25
Tanabe	JPN	33.7167	135.3500	1.27
Kobe	JPN	34.6667	135.2167	1.20
Imari	JPN	33.2667	129.8167	0.47
Mega	JPN	34.7667	134.7000	1.20
Higashi-Harima	JPN	34.7167	134.8333	1.20
Kakogawa	JPN	34.7000	134.8333	1.20
Takasago	JPN	34.7333	134.8000	1.20
Shirashima	JPN	34.0167	130.7333	1.27
Anan	JPN	33.9000	134.6667	1.25
Matsuura	JPN	33.3500	129.7333	1.29
Ushimado	JPN	34.6167	134.1667	1.20
Befu	JPN	34.7167	134.8500	1.20
Marugame	JPN	34.3000	133.7833	1.20
Tadotsu	JPN	34.2833	133.7333	1.20
Arida	JPN	34.0833	135.1167	1.20
Shimotsu	JPN	34.1167	135.1333	1.20
Kainan	JPN	34.1500	135.1833	1.20
Wakayama	JPN	34.2000	135.1333	1.20
Beppu	JPN	33.3000	131.5167	1.24
Kawanoe	JPN	34.0167	133.5333	1.17
Mishima-Kawanoe	JPN	34.0167	133.5667	1.17
Iwakuni	JPN	34.1667	132.2500	1.21
Kanokawa	JPN	34.1667	132.4333	1.21
Ogaki	JPN	34.1667	132.4500	1.21
Mizushima	JPN	34.5000	133.7500	1.22

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Gamagori	JPN	34.8000	137.2167	1.28
Mikawa	JPN	34.7667	137.2667	1.28
Chita	JPN	34.9833	136.8500	1.22
Kochi(JPN)	JPN	33.5167	133.5667	0.55
Handa	JPN	34.8833	136.9333	1.27
Kinuura	JPN	34.8667	136.9500	1.27
Onoda	JPN	34.0000	131.1833	1.26
Tachibana	JPN	33.8833	134.7167	1.26
Urado	JPN	33.5000	133.5833	1.29
Yokohama	JPN	35.4500	139.6667	0.66
Matsuyama	JPN	33.8500	132.7000	1.24
Katsuura	JPN	33.6167	135.9500	1.29
Maizuru	JPN	35.4833	135.3667	0.50
Yura	JPN	33.9500	135.1000	1.28
Nagoya	JPN	35.0500	136.8500	1.26
Minamata	JPN	32.2167	130.3333	0.61
Yokkaichi	JPN	34.9500	136.6500	1.19
Izumisano	JPN	34.3833	135.3000	1.26
Tsurumi	JPN	35.5000	139.6833	0.61
Matsue	JPN	35.4833	133.0667	0.54
Kawasaki	JPN	35.5000	139.7500	0.59
Ogishima	JPN	35.5000	139.7667	0.59
Saitozaki	JPN	33.6333	130.3500	0.98
Fukuoka	JPN	33.6500	130.3500	0.98
Kisarazu	JPN	35.3667	139.8833	0.92
Hakata	JPN	33.6167	130.3833	0.91
Sasebo	JPN	33.1333	129.7167	0.68
Naruto	JPN	34.1833	134.6167	1.26
Komatsushima	JPN	34.0000	134.6000	1.26
Tokushima	JPN	34.0500	134.6000	1.26
Tsu	JPN	34.6833	136.5500	1.28
Tottori	JPN	35.5000	134.2167	0.52
Genkai	JPN	33.8333	130.5000	0.67
Okayama	JPN	34.6000	133.9833	0.70
Sagamihara	JPN	35.5667	139.3667	0.72
Oita	JPN	33.2667	131.6667	0.65
Shibaura	JPN	35.6167	139.7500	0.66
Shimabara	JPN	32.8000	130.3333	0.85
Ichihara	JPN	35.5333	140.0667	0.70
Chiba	JPN	35.5667	140.0500	0.70
Saidaiji	JPN	34.6500	134.0333	0.76
Tokyo	JPN	35.6833	139.7333	0.78
Tsurusaki	JPN	33.2500	131.6833	0.76
Funabashi	JPN	35.6667	139.9667	0.89
Goi	JPN	35.5000	140.1000	0.97
Yatsushiro	JPN	32.5167	130.5333	0.87
Kumamoto	JPN	32.8333	130.7000	0.90
Matsuzaka	JPN	34.5667	136.5333	0.85
Tahara	JPN	34.6667	137.3000	0.85
Wakamatsu	JPN	33.9167	130.8167	0.93
Ise	JPN	34.4833	136.6833	0.88

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tobata	JPN	33.9167	130.8500	0.92
Yokoshima	JPN	32.8500	130.5333	1.07
Makiyama	JPN	33.8833	130.8167	0.96
Futajima	JPN	33.8833	130.7333	0.97
Kitakyushu	JPN	33.8667	130.8167	0.97
Yawata	JPN	33.8667	130.8000	0.97
Tarami	JPN	32.8167	129.9667	1.08
Kagoshima	JPN	31.5833	130.5667	1.21
Misumi	JPN	32.6000	130.4667	1.11
Aktau	KAZ	44.4167	50.1500	0.94
Yeonpyung	KOR	37.6000	125.7167	1.21
Gojeong	KOR	36.3000	126.4500	1.18
Sokcho	KOR	38.2333	128.5500	1.17
Taeon	KOR	36.9167	126.2333	1.25
Boryoung	KOR	35.3333	126.4667	1.09
Pyeongtaek	KOR	37.0000	126.7833	1.28
Donghae	KOR	37.5136	129.1203	1.16
Samchok	KOR	37.4842	129.1239	1.16
Okke	KOR	37.5000	129.0833	1.16
Mukho	KOR	37.5492	129.1086	1.16
Janghang	KOR	36.0167	126.6833	1.28
Gunsan	KOR	36.0000	126.7167	1.27
Jinhae	KOR	35.1333	128.6500	1.28
Pohang	KOR	36.0333	129.4333	1.29
Samchonpo	KOR	34.9167	128.0667	1.27
Wando	KOR	34.3667	126.6667	1.24
Mipo	KOR	35.5167	129.4333	1.28
Tongyong	KOR	34.8333	128.4167	1.27
Ulsan	KOR	35.4833	129.4000	1.29
Yosu	KOR	34.7500	127.7833	1.26
Samil	KOR	34.8667	127.7833	1.28
Gwangyang	KOR	34.9000	127.7000	1.28
Hadong	KOR	34.9500	127.8167	1.28
Seogwipo	KOR	33.2333	126.5667	1.15
Masan	KOR	35.1833	128.6000	0.71
Busan	KOR	35.1000	129.0667	1.26
Suyong	KOR	35.1500	129.1500	1.26
Samho	KOR	34.8667	126.4667	0.70
Mokpo	KOR	34.7833	126.3833	1.26
Onsan	KOR	35.4500	129.3667	1.26
Changwon	KOR	35.2167	128.6333	0.97
Okpo	KOR	34.8833	128.7167	1.28
Kosong(KOR)	KOR	34.9667	128.3000	0.88
Kenitra	MAR	34.2667	-6.5833	1.18
Ensenada(MEX)	MEX	31.8500	-116.6333	1.26
Risan	MTG	42.5167	18.7000	0.82
Tivat	MTG	42.4333	18.7000	0.50
Hercegnovi	MTG	42.4500	18.5333	0.69
Zelenika	MTG	42.4500	18.5833	0.58
Kotor	MTG	42.4167	18.7667	0.39
Bijela	MTG	42.4500	18.6667	0.41

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Lipci	MTG	42.4833	18.6667	0.27
Spaarndam	NLD	52.4167	4.6833	1.26
Alkmaar	NLD	52.6333	4.7167	1.25
Lisserbroek	NLD	52.2667	4.5667	1.22
Hillegom	NLD	52.3000	4.5833	1.22
Heemstede	NLD	52.3500	4.6000	1.22
Middelburg	NLD	51.5000	3.6167	1.25
West Grafdijk	NLD	52.5500	4.7833	1.21
Halfweg	NLD	52.3833	4.7500	1.19
Midwolda	NLD	53.1833	6.9833	1.25
Leiden	NLD	52.1500	4.4667	1.18
Kaag	NLD	52.2000	4.5333	1.16
Leiderdorp	NLD	52.1333	4.5167	1.16
Warmond	NLD	52.1833	4.4833	1.16
Winschoten	NLD	53.1333	7.0167	1.21
Pijnacker	NLD	52.0000	4.4167	1.15
Delft	NLD	52.0167	4.3667	1.15
Alphen aan den Rijn	NLD	52.1333	4.6333	1.11
Woubrugge	NLD	52.1667	4.6333	1.11
Beverwijk	NLD	52.4833	4.6333	1.20
Uithoorn	NLD	52.2333	4.8333	1.13
Aalsmeer	NLD	52.2500	4.7500	1.13
Velsen	NLD	52.4667	4.6333	1.15
Maarssen	NLD	52.1667	5.1667	1.15
Flushing East	NLD	51.4500	3.6667	1.00
Borssele	NLD	51.4167	3.7333	0.99
Wognum	NLD	52.0667	5.0167	1.17
Utrecht	NLD	52.0833	5.1167	1.17
Gouda	NLD	52.0167	4.7000	1.12
Haarlem	NLD	52.3833	4.6500	1.18
Westzaan	NLD	52.4500	4.7833	1.16
Koog aan den Zaan	NLD	52.4500	4.8167	1.16
Zaandam	NLD	52.4333	4.8333	1.16
Buitenhuisen	NLD	52.4333	4.7167	1.21
Wormerveer	NLD	52.4667	4.7833	1.20
Zeist	NLD	52.0833	5.2333	1.24
Odijk	NLD	52.0333	5.2167	1.24
Terneuzen	NLD	51.3333	3.8167	1.01
Stellendam	NLD	51.8000	4.0167	1.23
Yerseke	NLD	51.5000	4.0500	1.18
Wemeldinge	NLD	51.5167	4.0000	1.18
Sas van Goes	NLD	51.5000	3.9000	1.04
Amsterdam	NLD	52.3667	4.9000	1.27
Oudewater	NLD	52.0333	4.8833	1.19
Stavenisse	NLD	51.5833	4.0000	1.28
Ouwerkerk	NLD	51.6333	3.9833	1.28
Walsoorden	NLD	51.4500	4.0333	1.15
Hansweert	NLD	51.4500	4.0000	1.15
Zierikzee	NLD	51.6333	3.8833	1.25
Wolphaartsdijk	NLD	51.5333	3.8167	1.26
Paal	NLD	51.3500	4.1167	1.28

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Christchurch	NZL	-43.5500	172.6667	1.15
Lyttelton	NZL	-43.6167	172.7167	1.06
Opua	NZL	-35.3000	174.1333	0.79
Whangarei	NZL	-35.7333	174.3500	0.90
Kosong(PRK)	PRK	38.6000	128.3500	1.17
Nampo	PRK	38.7333	125.4167	1.08
Douro	PRT	41.1500	-8.6167	0.90
Portimao	PRT	37.1333	-8.5333	0.82
Barreiro	PRT	38.6500	-9.0833	0.69
Lisbon	PRT	38.7333	-9.1167	0.68
Vila Real de Santo Antonio	PRT	37.1833	-7.4167	0.76
Luminitza	ROM	44.3500	28.6333	0.64
Cernavoda	ROM	44.3500	28.0333	0.65
Agigea	ROM	44.0833	28.6167	0.58
Constantza	ROM	44.1667	28.6500	0.58
Sulina	ROM	45.1500	29.6500	0.63
Mangalia	ROM	43.8167	28.5833	0.27
Gelendzhik	RUS	44.5667	38.1167	0.61
Novorossiysk	RUS	44.7333	37.7833	0.61
Anapa	RUS	44.8833	37.3000	0.53
Tuapse	RUS	44.0833	39.0667	0.32
Kavkaz	RUS	45.3333	36.6500	0.72
Temryuk	RUS	45.2833	37.3667	0.63
Sochi	RUS	43.5833	39.7333	0.15
Taganrog	RUS	47.2000	38.9500	1.18
Azov	RUS	47.1000	39.4333	1.11
Rostov	RUS	47.1667	39.7000	1.11
Yeisk	RUS	46.7333	38.2667	1.17
Makhachkala	RUS	42.9833	47.5000	1.08
Derbent	RUS	42.0500	48.3000	0.98
Bekdash	TKM	41.5333	52.6000	0.78
Okarem	TKM	38.0667	53.8333	0.61
Turkmenbashi	TKM	40.0167	53.0000	0.81
Tunis	TUN	36.8000	10.2000	0.99
Menzel Bourguiba	TUN	37.1500	9.8000	0.81
Bou Grara	TUN	33.5000	10.6667	0.97
Erdek	TUR	40.4000	27.7833	0.95
Cide	TUR	41.8833	32.9167	0.50
Ayancik	TUR	41.9167	34.3667	0.46
Zonguldak	TUR	41.4500	31.7833	0.43
Ambarli	TUR	40.9667	28.7000	0.80
Marport	TUR	40.9667	28.6667	0.80
Kumport	TUR	40.9667	28.6833	0.80
Yalova	TUR	40.6667	29.2500	0.74
Pazar	TUR	41.2000	40.8667	0.37
Eregli(Sea of Marmara)	TUR	40.9667	27.9667	0.81
Yarimca	TUR	40.7333	29.7667	0.73
Tutunciftlik	TUR	40.7500	29.7833	0.73
Igsas	TUR	40.7500	29.7500	0.73
Zeytinburnu	TUR	40.7500	29.7667	0.73
Derince	TUR	40.7500	29.8167	0.73

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Golcuk	TUR	40.7167	29.8000	0.73
Tekirdag	TUR	40.9500	27.5000	0.83
Edincik	TUR	40.3500	27.8667	0.91
Bandirma	TUR	40.3500	27.9667	0.91
Inebolu	TUR	41.9833	33.7500	0.32
Kiyikoy	TUR	41.6333	28.1167	0.32
Igneada	TUR	41.8333	28.0167	0.32
Bartın	TUR	41.6333	32.3333	0.29
Podima	TUR	41.4833	28.2833	0.31
Saraylar	TUR	40.6500	27.6667	0.85
Silivri	TUR	41.0500	28.2667	0.73
Gemlik	TUR	40.4333	29.1500	0.73
Uskudar	TUR	41.0167	29.0167	0.73
Diliskelesi	TUR	40.7667	29.5333	0.73
Hereke	TUR	40.7000	29.6167	0.73
Tavsancil	TUR	40.7833	29.5833	0.73
Mudanya	TUR	40.4500	28.8667	0.73
Sinop	TUR	42.0000	35.1500	0.24
Eregli	TUR	41.3000	31.4500	0.21
Karabiga	TUR	40.4000	27.3000	1.00
Istanbul	TUR	41.0000	28.9667	0.73
Cekmece	TUR	40.9833	28.5500	0.72
Surmene	TUR	40.9333	40.1667	0.22
Pendik	TUR	40.9000	29.2500	0.72
Kartal	TUR	40.8833	29.1833	0.72
Kurucasile	TUR	41.8333	32.7000	0.20
Karacabey	TUR	40.2333	28.3667	0.73
Amasra	TUR	41.7500	32.3833	0.19
Giresun	TUR	40.9167	38.3833	0.17
Darica	TUR	40.7500	29.3833	0.72
Gebze	TUR	40.7667	29.4333	0.72
Tuzla	TUR	40.8092	29.3481	0.72
Buyukdere	TUR	41.1833	29.0500	0.16
Sile	TUR	41.1667	29.6167	0.14
Haydarpasa	TUR	41.0000	29.0167	0.72
Maltepe	TUR	40.9000	29.1500	0.72
Izmit	TUR	40.7667	29.9167	0.72
Yenikoy	TUR	40.7333	29.9000	0.72
Icdas	TUR	40.4500	27.1333	0.99
Gelibolu	TUR	40.4167	26.6833	1.00
Beykoz	TUR	41.1333	29.0833	0.12
Selvi Burnu	TUR	41.1500	29.0667	0.12
Unye	TUR	41.1333	37.3000	0.12
Fatsa	TUR	41.0333	37.3833	0.12
Samsun	TUR	41.3000	36.3333	0.09
Ordu	TUR	41.0000	37.9000	0.09
Rize	TUR	41.0500	40.5333	0.05
Trabzon	TUR	41.0000	39.7500	0.00
Akcaabat	TUR	41.0000	39.5500	0.03
Hopa	TUR	41.4167	41.4000	0.04
Yalta	UKR	44.5000	34.1667	1.06

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Skadovsk	UKR	46.1000	32.9167	0.96
Dneprobugskiy	UKR	46.7500	31.9167	0.97
Oktyabrsk	UKR	46.8333	31.9500	0.97
Ochakov	UKR	46.6000	31.5500	0.95
Kherson	UKR	46.6167	32.6000	0.96
Yuzhnyy	UKR	46.6000	31.0167	0.90
Nikolayev	UKR	46.9667	31.9667	0.92
Odessa	UKR	46.4833	30.7500	0.85
Ilichevsk	UKR	46.3000	30.6500	0.84
Belgorod-Dnestrovskiy	UKR	46.1833	30.3500	0.84
Chernomorsk	UKR	45.5000	32.6667	0.58
Ust-Dunaysk	UKR	45.4667	29.8333	0.59
Izmail	UKR	45.3333	28.8500	0.74
Kiliya	UKR	45.4333	29.2667	0.73
Yevpatoriya	UKR	45.1833	33.3833	0.47
Vilkovo	UKR	45.4000	29.6000	0.71
Sevastopol	UKR	44.6167	33.3667	0.34
Kerch	UKR	45.3500	36.4667	0.75
Mariupol	UKR	47.0500	37.5000	1.11
Berdiansk	UKR	46.7500	36.7833	1.04
Theodosia	UKR	45.0333	35.4000	0.61
La Paloma	URY	-34.6500	-54.1500	0.83
Punta del Este	URY	-34.9667	-54.9500	1.10
Maldonado	URY	-34.9500	-54.9500	1.10
Piriapolis	URY	-34.8667	-55.2667	1.03
Montevideo	URY	-34.9000	-56.2667	0.86
Juan Lacaze	URY	-34.4333	-57.4167	0.75
Colonia	URY	-34.4667	-57.8500	0.84
Nueva Palmira	URY	-33.8833	-58.4167	0.97
Longview	USA	46.1333	-122.9333	1.24
Rainier	USA	46.0833	-122.9333	1.24
Mukilteo	USA	47.9500	-122.3000	1.26
Everett(WA)	USA	47.9833	-122.2167	1.26
Tacoma	USA	47.2500	-122.4167	1.21
Port Gamble	USA	47.8667	-122.5833	1.24
Edmonds	USA	47.8167	-122.3667	1.17
Point Wells	USA	47.7833	-122.4000	1.17
Seattle	USA	47.6333	-122.3333	1.12
Yarmouth(USA)	USA	43.8000	-70.2000	1.22
Wildwood	USA	38.9667	-74.8167	1.17
Mamaroneck	USA	40.9333	-73.7333	1.17
Clinton	USA	41.2667	-72.5333	1.24
Jamestown(RI USA)	USA	41.5000	-71.3667	1.25
Newport(RI)	USA	41.4833	-71.3333	1.25
Stamford	USA	41.0167	-73.5333	1.26
New Haven	USA	41.2500	-72.9000	1.22
Sparrow's Point	USA	39.20	-76.47	1.14
Coos Bay	USA	43.3833	-124.2000	1.01
Northport	USA	40.9333	-73.3667	1.16
Portsmouth(RI USA)	USA	41.6000	-71.2333	0.84
Davisville	USA	41.6167	-71.4000	0.85



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Melville	USA	41.5833	-71.2833	0.83
Oyster Bay	USA	40.8833	-73.5167	1.19
Port Chester	USA	40.9833	-73.6500	1.19
Patchogue	USA	40.7667	-73.0167	1.17
Tiverton(USA)	USA	41.6333	-71.2000	0.81
City Is.	USA	40.8500	-73.7833	1.19
Bristol(USA)	USA	41.6667	-71.2667	0.81
Brayton Point	USA	41.7000	-71.2000	0.86
Boston(USA)	USA	42.3833	-71.0500	0.90
Fall River	USA	41.7000	-71.1667	0.88
Virginia Beach	USA	36.8500	-75.9500	0.95
North Kingstown	USA	41.5500	-71.4667	0.83
Groton	USA	41.3500	-72.0833	1.01
Carpinteria	USA	34.4333	-119.6167	1.26
Warren(USA)	USA	41.7333	-71.3000	0.95
Yorktown	USA	37.2333	-76.4000	0.79
New Gretna	USA	39.5833	-74.4500	0.65
Milford(DE USA)	USA	38.9000	-75.4167	0.99
Morro Bay	USA	35.3667	-120.8500	0.93
New London	USA	41.4000	-72.1000	1.14
Salisbury(MD USA)	USA	38.3500	-75.5833	0.85
Providence	USA	41.8000	-71.3833	1.04
Somerset(US)	USA	41.7833	-71.1333	1.09
Somerset(Mass)	USA	41.7833	-71.1333	1.09
Port Jefferson	USA	40.9500	-73.0667	0.86
San Francisco	USA	37.8000	-122.4167	1.01
Allyns Point	USA	41.4333	-72.0667	1.25
Cove Point	USA	38.3833	-76.3833	0.66
Richmond(CA USA)	USA	37.9167	-122.3833	0.97
Annapolis	USA	38.9833	-76.4833	0.84
Sausalito	USA	37.8500	-122.4833	1.00
Hempstead Hbr.	USA	40.8333	-73.8500	0.74
Alameda	USA	37.7667	-122.3167	0.91
New York	USA	40.7000	-74.0167	0.82
Port Hueneme	USA	34.1525	-119.2036	0.92
Newport News	USA	36.9667	-76.4167	0.83
Piney Point	USA	38.1333	-76.5333	0.52
Norfolk(USA)	USA	36.8500	-76.3167	0.83
Portsmouth(VA USA)	USA	36.8333	-76.2833	0.82
Chesapeake	USA	36.7833	-76.3000	0.82
Redwood City	USA	37.5000	-122.2167	1.24
Newport Beach	USA	33.6167	-117.9167	0.95
Manteo	USA	35.9000	-75.5833	1.12
Baltimore	USA	39.2833	-76.5833	0.77
Oakland	USA	37.8000	-122.2833	1.26
Rodeo	USA	38.0333	-122.2500	1.20
Selby(USA)	USA	38.0500	-122.2500	1.24
Marina del Rey	USA	33.9667	-118.4333	1.14
Chula Vista	USA	32.6333	-117.0833	0.83
San Diego	USA	32.7053	-117.1378	0.81
Benicia	USA	38.0333	-122.1500	1.21

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Martinez	USA	38.0167	-122.1333	1.21
Pass Christian	USA	30.3000	-89.2333	1.17
Moss Point	USA	30.4167	-88.5167	1.22
Pascagoula	USA	30.3500	-88.5667	1.22
Escatawpa	USA	30.4333	-88.5333	1.22
Gulfport	USA	30.3500	-89.0833	1.21
Pearlington	USA	30.2333	-89.6000	1.17
Ocean Springs	USA	30.3833	-88.8167	1.23
Mobile	USA	30.6833	-88.0500	1.28
Biloxi	USA	30.4000	-88.9000	1.25
Theodore	USA	30.5333	-88.1833	1.28
Charleston	USA	32.7833	-79.9333	0.89
Madisonville	USA	30.4167	-90.1500	1.21
Slidell	USA	30.2833	-89.8167	1.21
New Bern	USA	35.1000	-77.0333	1.25
Panama City(USA)	USA	30.1333	-85.6500	1.03
Port St. Joe	USA	29.8167	-85.3000	1.06
Georgetown(USA)	USA	33.3500	-79.3000	1.27
Jacksonville	USA	30.3833	-81.6333	1.12
Palacios	USA	28.7000	-96.2167	1.20
Savannah	USA	32.0833	-81.0833	1.28
Point Comfort	USA	28.6333	-96.5667	1.28

*Appendix G. List of global ports that have highest environmental similarity to Conception Bay Harbour. NIS originating from these ports have the highest potential for survival if introduced at Conception Bay Harbour.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
San Nicolas Bay	ABW	12.4364	-69.9231	0.70
Oranjestad	ABW	12.5219	-70.0389	0.70
Barcadera	ABW	12.4828	-69.9994	0.72
Baia dos Tigres	AGO	-16.5167	11.7667	0.51
Tombwa	AGO	-15.7667	11.9167	0.47
Namibe	AGO	-15.1647	12.1578	0.26
Porto Saco	AGO	-15.1333	12.1333	0.26
Lobito	AGO	-12.3536	13.5436	0.16
Cuio	AGO	-12.9833	12.9833	0.18
Cabinda	AGO	-5.5514	12.1928	0.53
Malembo	AGO	-5.3167	12.1667	0.52
Benguela	AGO	-12.5833	13.4000	0.22
Sumbe	AGO	-11.2000	13.8333	0.29
Porto Amboim	AGO	-10.7281	13.7567	0.37
Ambriz	AGO	-7.8464	13.1231	0.45
Luanda	AGO	-8.8139	13.2308	0.48
Ambrizete	AGO	-7.2667	12.8500	0.49
Soyo	AGO	-6.1200	12.2822	0.64
Sombrero	AIA	18.6000	-63.4667	0.73
Durres	ALB	41.3131	19.4511	1.12
St. Anna Bay	ANT	12.1333	-68.9333	0.73
Willemstad(ANT)	ANT	12.1167	-68.9333	0.73

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Caracas Bay	ANT	12.0667	-68.8667	0.73
Fuik Bay	ANT	12.0500	-68.8333	0.73
Bullen Bay	ANT	12.1833	-69.0167	0.73
St. Michiel's Bay	ANT	12.1500	-69.0167	0.73
Kralendijk	ANT	12.1500	-68.2833	0.74
Philipsburg	ANT	18.0333	-63.0500	0.75
Saba	ANT	17.6333	-62.2333	0.75
St. Eustatius	ANT	17.4833	-62.9833	0.76
Arzanah Is.	ARE	24.7833	52.5667	1.09
Jebel Ali	ARE	24.9903	55.0608	1.18
Zirku Is.	ARE	24.8833	53.0667	1.12
Das Is.	ARE	25.1500	52.8667	1.11
Sharjah	ARE	25.3667	55.3833	1.10
Ajman	ARE	25.4167	55.4333	1.10
Hamriyah	ARE	25.4667	55.4833	1.10
Dubai	ARE	25.2667	55.2667	1.10
Ruwais	ARE	24.1500	52.7167	1.17
Mina Saqr	ARE	25.9833	56.0500	1.05
Ras al Khaimah	ARE	25.7833	55.9333	1.14
Sadiyat Is.	ARE	24.5333	54.4000	1.22
Abu Dhabi	ARE	24.4833	54.3667	1.22
Umm al Qaiwain	ARE	25.5833	55.5833	1.16
Khor Fakkan	ARE	25.3500	56.3667	1.19
Fujairah	ARE	25.1667	56.3667	1.24
Kalba	ARE	25.0833	56.3333	1.24
Ibicuy	ARG	-33.7428	-59.1681	1.21
Pago Pago	ASM	-14.2833	-170.6667	1.02
St. John's(ATG)	ATG	17.1181	-61.8444	0.76
Port Kembla	AUS	-34.4650	150.8892	1.19
Port Lincoln	AUS	-34.7244	135.8692	1.16
Esperance	AUS	-33.8736	121.8919	1.13
Thevenard	AUS	-32.1469	133.6467	1.10
Ardrossan(AUS)	AUS	-34.4344	137.9119	1.11
Jervis Bay	AUS	-35.1000	150.7833	1.01
Busselton	AUS	-33.6333	115.3333	0.99
Whyalla	AUS	-33.0375	137.5869	0.97
Walleroo	AUS	-33.9294	137.6247	1.04
Port Pirie	AUS	-33.1686	138.0108	1.06
Bunbury	AUS	-33.3358	115.6503	0.89
Port Bonython	AUS	-32.9889	137.7672	0.97
Catherine Hill Bay	AUS	-33.1667	151.6333	0.78
Kurnell	AUS	-34.0000	151.2333	0.76
Port Jackson	AUS	-33.8333	151.2833	0.76
Kwinana	AUS	-32.2167	115.7500	0.78
Port Augusta	AUS	-32.5000	137.7833	1.27
Fremantle	AUS	-32.0592	115.7508	0.73
Lord Howe Is.	AUS	-31.5333	159.0833	0.50
Geraldton	AUS	-28.7786	114.5897	0.56
Useless Loop	AUS	-26.1103	113.3944	0.32
Coffs Hbr.	AUS	-30.3000	153.1500	0.19
Clarence River	AUS	-29.4167	153.3833	0.14

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Thornlands	AUS	-27.5333	153.2667	0.14
Mackay	AUS	-21.1078	149.2175	0.23
Cape Cuvier	AUS	-24.2261	113.3939	0.15
Carnarvon	AUS	-24.8833	113.6667	0.44
Gladstone	AUS	-23.8364	151.2358	0.90
Port Alma	AUS	-23.5828	150.8597	0.18
Urangan	AUS	-25.2833	152.9167	0.13
Hay Point	AUS	-21.2875	149.2847	0.22
Onslow	AUS	-21.6333	115.1000	0.42
Beadon	AUS	-21.6333	115.1167	0.42
Exmouth(AUS)	AUS	-21.9000	114.1833	0.44
Hayman Is.	AUS	-20.0667	148.8667	0.53
Dampier	AUS	-20.6825	116.7139	0.51
Port Walcott	AUS	-20.5975	117.1761	0.54
Bowen	AUS	-20.0167	148.2500	0.59
Cooktown	AUS	-15.4667	145.1667	0.58
Townsville	AUS	-19.2558	146.8286	0.61
Lucinda	AUS	-18.5258	146.3311	0.62
Port Douglas	AUS	-16.4833	145.4500	0.60
Abbot Point	AUS	-19.8850	148.0781	0.64
Innisfail	AUS	-17.5167	146.0833	0.61
Cairns	AUS	-16.9233	145.7708	0.62
Mourilyan	AUS	-17.5953	146.1186	0.62
Bing Bong	AUS	-15.6167	136.3500	0.80
Broome	AUS	-17.9619	122.2336	0.73
Port Hedland	AUS	-20.3156	118.5822	0.79
Cape Flattery	AUS	-14.9481	145.3489	0.74
Karumba	AUS	-17.4889	140.8372	0.83
Weipa	AUS	-12.6642	141.8706	0.78
Milner Bay	AUS	-13.8578	136.4242	0.86
Gove	AUS	-12.1881	136.6875	0.86
Derby	AUS	-17.3039	123.6297	0.87
Yampi Sound	AUS	-16.1167	123.6333	0.90
Darwin	AUS	-12.4494	130.8397	1.17
Cotonou	BEN	6.3508	2.4231	0.86
Fouzderhat Beach	BGD	22.3833	91.7500	0.77
Chittagong	BGD	22.3219	91.8172	0.90
Kutubdia	BGD	21.8667	91.8500	0.79
Chalna	BGD	22.6000	89.5167	0.98
Mongla	BGD	22.5186	89.5872	0.98
Sitra	BHR	26.1542	50.6317	0.97
Mina Sulman	BHR	26.2411	50.5928	0.98
Marsh Hbr.	BHS	26.5167	-77.0833	0.58
Great Abaco Is.	BHS	25.8500	-77.1667	0.62
Eleuthera Is.	BHS	25.3833	-76.5500	0.62
Castaway Cay	BHS	26.0833	-77.5333	0.63
Salt Cay(BHS)	BHS	25.1000	-77.2667	0.65
Little San Salvador	BHS	24.5667	-75.9333	0.65
Half Moon Cay	BHS	24.5833	-75.9667	0.65
Princess Cays	BHS	24.5833	-76.0833	0.65
Great Stirrup Cay	BHS	25.8333	-77.9167	0.65

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Berry Is.	BHS	25.8167	-77.9500	0.65
Nassau	BHS	25.0744	-77.3219	0.66
South Riding Point	BHS	26.6256	-78.2286	0.66
Great Exuma Is.	BHS	23.5667	-75.8167	0.68
Little Exuma Is.	BHS	23.3833	-75.5000	0.69
Lucaya	BHS	26.5333	-78.6667	0.70
Freeport(BHS)	BHS	26.5150	-78.6447	0.70
Ragged Is.	BHS	22.2333	-75.7500	0.71
Coco Cay	BHS	22.1500	-75.7000	0.72
Ocean Cay	BHS	25.4167	-79.2167	0.73
Great Isaac Is.	BHS	26.0333	-79.0833	0.74
Bimini Is.	BHS	25.7500	-79.3167	0.75
Gun Cay	BHS	25.5833	-79.3167	0.76
Matthew Town	BHS	20.9500	-73.6833	0.79
Punta Gorda(BLZ)	BLZ	16.1000	-88.8000	0.57
Dangriga	BLZ	16.9667	-88.2333	0.88
Commerce Bight	BLZ	16.9333	-88.2333	0.88
Belize City	BLZ	17.4872	-88.2003	0.89
Big Creek	BLZ	16.5000	-88.4000	0.89
San Pedro(BLZ)	BLZ	17.9167	-87.9500	0.90
Corozal	BLZ	18.3667	-88.4000	0.94
Hamilton(BMU)	BMU	32.3000	-64.7833	0.30
Freeport(BMU)	BMU	32.3167	-64.8333	0.30
St. George's(BMU)	BMU	32.3833	-64.6667	0.30
Tramandai	BRA	-30.0000	-50.0833	0.68
Imbituba	BRA	-28.2336	-48.6528	0.66
Porto Laguna	BRA	-28.5000	-48.7500	0.65
Mangaratiba	BRA	-22.9000	-44.0500	0.46
Porto Belo	BRA	-27.1667	-48.5500	0.45
Navegantes	BRA	-26.8833	-48.6500	0.42
Itajai	BRA	-26.8994	-48.6706	0.42
Ilhabela	BRA	-23.7667	-45.3500	0.35
Buzios	BRA	-22.7500	-41.9000	0.43
Sepetiba	BRA	-22.9333	-43.8333	1.23
Florianopolis	BRA	-27.6000	-48.5667	1.16
Sao Francisco do Sul	BRA	-26.2333	-48.6333	0.35
Forno	BRA	-23.0167	-42.0000	0.40
Paranagua	BRA	-25.5000	-48.5167	1.21
Santos	BRA	-23.9333	-46.3333	1.22
Angra dos Reis	BRA	-23.0061	-44.3131	0.05
Sao Sebastiao	BRA	-23.8000	-45.3833	0.09
Gebig	BRA	-23.0500	-44.2333	0.14
Macaee	BRA	-22.3500	-41.8000	0.14
Rio de Janeiro	BRA	-22.9167	-43.2000	0.62
Parati	BRA	-23.2167	-44.7167	0.18
Arraial do Cabo	BRA	-22.9667	-42.0333	0.24
Niteroi	BRA	-22.8833	-43.1167	0.71
Ponta do Ubu	BRA	-20.7833	-40.5833	0.29
Guarapari	BRA	-20.6500	-40.5167	0.32
Praia Mole	BRA	-20.2833	-40.2333	0.33
Tubarao	BRA	-20.2833	-40.2500	0.33

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Porto Seguro	BRA	-16.4167	-39.1167	0.39
Ilheus	BRA	-14.7892	-39.0319	0.42
Camamu	BRA	-13.9500	-39.1167	0.47
Portocel	BRA	-19.8500	-40.0500	0.45
Vitoria	BRA	-20.3000	-40.3333	1.15
Salvador	BRA	-12.9667	-38.5167	0.55
Usiba	BRA	-12.8167	-38.5000	1.15
Cumuruxatiba	BRA	-17.1000	-39.1833	0.57
Aracaju	BRA	-10.9261	-37.0472	0.85
Cabedelo	BRA	-6.9717	-34.8375	0.76
Maceio	BRA	-9.6667	-35.7333	0.76
Natal(BRA)	BRA	-5.7833	-35.1833	0.77
Fortaleza	BRA	-3.7181	-38.4714	0.78
Pecem	BRA	-3.5500	-38.8167	0.80
Salineiro Term.	BRA	-4.8167	-37.0333	0.79
Macau(BRA)	BRA	-5.1000	-36.6333	0.81
Fernando Noronha Is.	BRA	-3.8000	-32.3833	0.80
Sao Luiz	BRA	-2.5000	-44.3000	0.82
Recife	BRA	-8.0667	-34.8667	0.81
Suape	BRA	-8.4000	-34.9500	0.82
Parnaiba	BRA	-2.9333	-41.7833	0.87
Ponta da Madeira	BRA	-2.5667	-44.3833	1.22
Itaqui	BRA	-2.5667	-44.3500	1.22
Bridgetown	BRB	13.1031	-59.6239	0.83
Lumut(Brunei)	BRN	4.6667	114.4500	0.90
Kuala Belait	BRN	4.5833	114.1833	0.90
Tanjong Salirong	BRN	4.9000	115.1000	0.94
Muara Port	BRN	5.0333	115.0833	1.02
Caldera(CHL)	CHL	-27.0667	-70.8833	1.29
Taltal	CHL	-25.4000	-70.4833	1.25
Caleta Coloso	CHL	-23.7500	-70.4667	1.25
Antofagasta	CHL	-23.6333	-70.4333	1.25
Mejillones	CHL	-23.1000	-70.4667	1.00
Arica	CHL	-18.4833	-70.3333	0.64
Hanga Roa	CHL	-27.1500	-109.4167	0.23
Jinshan	CHN	30.7167	121.3167	1.26
Majishan	CHN	30.6833	122.4167	1.26
Matsu Is.	CHN	26.1500	119.9333	0.83
Zhangzhou	CHN	24.4167	118.0500	0.76
Xiamen	CHN	24.4500	118.0667	0.76
Songxia	CHN	25.6833	119.5833	0.80
Shipu	CHN	29.1833	121.8500	0.87
Dongshan	CHN	23.7500	117.5167	0.56
Xiuyu	CHN	25.2167	118.9833	0.85
Meizhou	CHN	25.1833	119.0000	0.85
Sanbaimen	CHN	23.5333	117.0833	0.70
Raoping	CHN	23.6500	117.0167	0.70
Hankong	CHN	25.4333	119.0833	1.21
Chaoyang	CHN	23.2667	116.5667	1.09
Weitou	CHN	24.5333	118.5667	0.74
Donglian	CHN	22.7333	114.6167	0.59

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Shanwei	CHN	22.8000	115.3333	0.54
Yantian	CHN	22.5900	114.2683	0.58
Shantou	CHN	23.3333	116.7500	0.42
Guangdong Term.	CHN	22.5667	114.4333	0.56
Mawan	CHN	22.4833	113.8667	0.60
Shekou	CHN	22.4833	113.9000	0.60
Chiwan	CHN	22.4667	113.8833	0.50
Zhuhai	CHN	22.2833	113.5833	0.52
Jiuzhou	CHN	22.2333	113.5833	0.51
Beihai	CHN	21.4500	109.0500	0.67
Aotou	CHN	22.7167	114.5167	0.45
Mabianzhou	CHN	22.6667	114.6500	0.45
Huizhou	CHN	22.7000	114.5667	0.45
Hong Kong	CHN	22.3000	114.1667	0.56
Lasawei	CHN	22.1333	113.8167	0.48
Macau	CHN	22.2000	113.5500	0.49
Shuidong	CHN	21.4833	111.0667	0.58
Maoming	CHN	21.4833	111.0833	0.58
Tinpak	CHN	21.5000	111.2500	0.58
Yutang	CHN	21.9333	112.7667	0.49
Macun	CHN	19.9500	110.0500	0.52
Qinglan	CHN	19.5833	110.8833	0.50
Yangpu	CHN	19.7000	109.3333	1.12
Puqian	CHN	20.0333	110.5667	0.50
Sha Tin	CHN	22.3667	114.1667	0.57
Haikou	CHN	20.0167	110.2667	0.54
Basuo	CHN	19.1000	108.6167	0.59
Yulin	CHN	18.2167	109.5333	0.63
Sanya	CHN	18.1833	109.4667	0.64
Boubele	CIV	4.4833	-7.2333	0.58
Grand Berebi	CIV	4.6500	-6.8833	0.58
San Pedro(CIV)	CIV	4.7333	-6.6167	0.63
Tabou	CIV	4.4167	-7.3333	0.71
Limbe	CMR	4.0000	9.2000	0.75
Limboh Term.	CMR	4.0000	9.1333	0.80
Campo	CMR	2.3333	9.8667	0.85
Tiko	CMR	4.0667	9.4000	0.94
Douala	CMR	4.0500	9.7000	0.99
Bonaberi	CMR	4.0667	9.6833	0.99
Grand Batanga	CMR	2.8333	9.8833	1.04
Kribi	CMR	2.9333	9.9167	1.04
Gran Tarajal	CNI	28.2000	-14.0167	0.99
Arrecife	CNI	28.9500	-13.5500	0.94
Puerto del Rosario	CNI	28.5000	-13.8500	0.94
Morrojable	CNI	28.0333	-14.3333	0.92
Arguineguin	CNI	27.7500	-15.6667	0.79
Los Cristianos	CNI	28.0500	-16.7167	0.74
Las Palmas	CNI	28.1331	-15.4319	0.79
La Salineta	CNI	27.9667	-15.3667	0.78
Santa Cruz de Tenerife	CNI	28.4833	-16.2333	0.71
Palma(Canary Is)	CNI	28.6833	-17.7667	0.67

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Santa Cruz de la Palma	CNI	28.6667	-17.7500	0.67
La Estaca	CNI	27.7833	-17.9000	0.67
Hierro	CNI	27.7500	-18.0000	0.67
Gomera	CNI	28.1000	-17.1000	0.66
San Sebastian(CNI)	CNI	28.0833	-17.1167	0.66
Moanda Term.	COD	-5.9667	12.1333	0.53
Banana	COD	-6.0167	12.4000	0.65
Pointe Noire(COG)	COG	-4.7833	11.8333	0.53
Bas Kouilou	COG	-4.5000	11.6833	0.52
Loango	COG	-4.6500	11.8167	0.52
Avatiu	COK	-21.2000	-159.7833	0.48
Avarua	COK	-21.2000	-159.7667	0.49
Arutunga	COK	-18.8667	-159.8000	0.68
Puerto Bolivar(COL)	COL	12.2667	-71.9500	0.54
Rio Hacha	COL	11.5500	-72.9167	0.57
Bahia Solano	COL	6.2333	-77.4167	0.78
Buenaventura	COL	3.9000	-77.0833	0.81
El Charco	COL	3.4500	-77.3167	0.81
Santa Marta	COL	11.2500	-74.2167	0.70
Boca de Pepe	COL	5.0500	-77.0500	0.86
Tumaco	COL	1.8500	-78.7333	0.79
Togoroma	COL	4.3667	-77.3833	0.86
Turbo	COL	8.0667	-76.7333	0.83
Zapzurro	COL	8.6500	-77.3500	0.92
Acandi	COL	8.5333	-77.3333	0.92
Capurgana	COL	8.6333	-77.3500	0.92
Titumate	COL	8.3000	-77.0667	0.92
Trigana	COL	8.3833	-77.1000	0.92
Puerto Zuniga	COL	11.1500	-74.2167	0.85
Pozos Colorados Term.	COL	11.1500	-74.2500	0.85
San Andres	COL	12.5500	-81.6833	0.86
Isla de Providencia	COL	13.3833	-81.3667	0.86
Cartagena(COL)	COL	10.4167	-75.5333	0.94
Covenas	COL	9.4167	-75.6833	0.96
Mamonal	COL	10.3167	-75.5167	1.28
Mutsamudu	COM	-12.1667	44.4000	0.72
Foumbouni	COM	-12.2833	43.7333	0.73
Moroni	COM	-11.7000	43.2500	0.74
Pedra de Lume	CPV	16.7500	-22.9000	0.08
Palmeira	CPV	16.7500	-23.0000	0.08
Santa Maria(CPV)	CPV	16.5833	-22.9167	0.10
Porto Novo(CPV)	CPV	17.0167	-25.0667	0.15
Ponta do Sol	CPV	17.2000	-25.1000	0.16
Porto de Sal-Rei	CPV	16.1667	-22.9500	0.13
St. Nicholas(CPV)	CPV	16.6333	-24.2833	0.14
Mindelo	CPV	16.8833	-25.0000	0.16
St. Vincent(CPV)	CPV	16.9000	-25.0000	0.16
Maio	CPV	15.2000	-23.2500	0.20
Praia(CPV)	CPV	14.9000	-23.5167	0.23
Fogo	CPV	14.8667	-24.4833	0.26
Brava	CPV	14.8167	-24.6833	0.27



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Quepos	CRI	9.4000	-84.1667	0.76
Golfito	CRI	8.6333	-83.1833	0.87
Playas del Coco	CRI	10.5500	-85.7000	0.88
Puerto Limon	CRI	10.0000	-83.0500	0.90
Puntarenas	CRI	9.9833	-84.8500	0.91
Punta Morales	CRI	10.0000	-84.9667	0.91
Caldera(CRI)	CRI	9.9000	-84.7333	0.91
Coco Is.(CRI)	CRI	5.5500	-87.0500	0.92
Bahia Honda	CUB	22.9667	-83.1667	0.87
Havana	CUB	23.1333	-82.3500	0.46
Santa Lucia	CUB	22.6833	-83.9667	0.49
Palo Alto	CUB	21.6000	-78.9667	0.52
Jucaro	CUB	21.6167	-78.8500	0.52
Cienfuegos	CUB	22.1333	-80.4500	0.95
Boca Grande(CUB)	CUB	21.5500	-78.6667	0.53
Santiago(CUB)	CUB	19.9833	-75.8667	0.57
Media Luna	CUB	20.1667	-77.4333	0.62
Ceiba Hueca	CUB	20.2167	-77.3167	0.65
Guayabal	CUB	20.7000	-77.6167	0.66
Cabo Cruz	CUB	19.8500	-77.7167	0.88
Manzanillo(CUB)	CUB	20.3500	-77.1167	0.67
Manati	CUB	21.3667	-76.8167	0.67
Tanamo	CUB	20.7000	-75.3333	0.84
San Ramon	CUB	20.2167	-77.3667	0.68
Casilda	CUB	21.7500	-79.9833	0.68
Puerto Padre	CUB	21.2833	-76.5333	0.68
Nicarao	CUB	20.7167	-75.5500	1.14
Vita	CUB	21.0833	-75.9500	0.72
Boqueron	CUB	19.9833	-75.1167	0.76
Cardenas	CUB	23.0500	-81.2000	0.77
Pastelillo	CUB	21.5500	-77.2167	0.77
Nuevitas	CUB	21.5500	-77.2667	0.77
Matanzas(CUB)	CUB	23.0500	-81.5667	0.78
Cabanas	CUB	23.0000	-82.9833	1.09
Nueva Gerona	CUB	21.9167	-82.7667	0.85
Mariel	CUB	23.0167	-82.7500	1.15
Caibarien	CUB	22.5333	-79.4667	0.83
Isabela de Sagua	CUB	22.9500	-80.0167	0.85
Cayo Moa	CUB	20.6833	-74.9000	0.86
Antilla	CUB	20.8333	-75.7333	0.87
Preston(CUB)	CUB	20.7833	-75.6500	0.87
Baracoa	CUB	20.3500	-74.4833	0.87
Felton	CUB	20.7500	-75.6000	1.21
Tunas de Zaza	CUB	21.6333	-79.5500	0.88
Manopla	CUB	20.6500	-77.8667	0.92
Niquero	CUB	20.0500	-77.6000	0.97
Flying Fish Cove	CXR	-10.4167	105.7167	0.86
George Town(CYM)	CYM	19.3000	-81.3833	0.89
Little Cayman	CYM	19.6667	-80.1167	0.91
Creek(CYM)	CYM	19.7333	-79.7833	0.91
Xeros Pier	CYP	35.1333	32.8333	1.24

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Karavostassi	CYP	35.1333	32.8167	1.24
Paphos	CYP	34.7500	32.4167	0.93
Latchi	CYP	35.0333	32.4000	0.63
Vassiliko Bay	CYP	34.7000	33.3333	0.59
Limassol	CYP	34.6542	33.0103	0.59
Akrotiri	CYP	34.5667	33.0333	0.59
Larnaca	CYP	34.9167	33.6333	0.59
Dhekelia	CYP	34.9833	33.7333	0.60
Famagusta	CYP	35.1167	33.9333	0.60
Kalecik	CYP	35.3167	33.9833	0.60
Kyrenia	CYP	35.3333	33.3167	0.58
Teknecik	CYP	35.2833	33.4667	0.58
Djibouti	DJI	11.6000	43.1500	1.08
Portsmouth(DMA)	DMA	15.5667	-61.4500	0.81
Roseau	DMA	15.2833	-61.4000	0.82
Cabo Rojo	DOM	17.9000	-71.6667	0.63
Boca Chica	DOM	18.4500	-69.5833	0.66
Caucedo	DOM	18.4000	-69.6167	0.66
Andres	DOM	18.4000	-69.6333	0.66
San Pedro de Macoris	DOM	18.4333	-69.3000	0.68
La Romana	DOM	18.4167	-68.9500	0.68
Arroyo Barril Roads	DOM	19.2167	-69.5000	0.72
Samana	DOM	19.2000	-69.3333	0.72
Arroyo Barril	DOM	19.2000	-69.4333	0.72
Sanchez	DOM	19.2333	-69.6000	0.72
Puerto Plata	DOM	19.8167	-70.7000	0.72
Luperon	DOM	19.8833	-70.9500	0.73
Manzanillo(DOM)	DOM	19.7167	-71.7500	0.75
Azua	DOM	18.4167	-70.6667	0.78
Puerto Viejo de Azua	DOM	18.5000	-70.6667	1.24
Santo Domingo	DOM	18.4667	-69.8833	0.82
Rio Haina	DOM	18.4167	-70.0000	0.82
Las Calderas	DOM	18.2167	-70.5000	0.83
Barahona	DOM	18.2000	-71.0667	0.84
Arzew	DZA	35.8606	-0.3097	1.01
Mers el Kebir	DZA	35.7333	-0.7000	1.00
Beni Saf	DZA	35.3008	-1.3906	0.97
Ghazaouet	DZA	35.0981	-1.8578	0.96
Annaba	DZA	36.8997	7.7567	1.08
Algiers	DZA	36.7706	3.0531	0.96
Tenes	DZA	36.5186	1.3197	0.97
Cherchell	DZA	36.6081	2.1931	0.95
Dellys	DZA	36.9197	3.8936	1.07
Skikda	DZA	36.8778	6.9439	1.01
Bejaia	DZA	36.7217	5.0739	1.03
Djen Djen	DZA	36.8208	5.7700	0.89
Collo	DZA	37.0089	6.5633	0.88
Oran	DZA	35.7058	-0.6422	0.99
Mostaganem	DZA	35.9347	0.0808	1.04
Galapagos Is.	ECU	-0.2667	-91.3667	0.11
La Libertad(ECU)	ECU	-2.2167	-80.9167	0.21

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Salinas	ECU	-2.1667	-80.9500	0.21
Manta	ECU	-0.9333	-80.7167	0.36
Posorja	ECU	-2.7667	-80.3333	0.47
Muisne	ECU	0.5833	-79.9667	0.77
Bahia de Caraquez	ECU	-0.6667	-80.5000	0.56
Puerto Bolivar(ECU)	ECU	-3.2667	-80.0167	0.96
Esmeraldas	ECU	0.9667	-79.6833	0.65
Sokhna	EGY	29.6833	32.3667	0.73
Ras Sudr Term.	EGY	29.5833	32.6833	0.71
Mersa Matruh	EGY	31.3667	27.2333	0.59
El Arish	EGY	31.1167	33.8000	0.73
Idku	EGY	31.3500	30.3000	0.54
Abu Kir	EGY	31.3000	30.0667	0.54
El Dekheila	EGY	31.1500	29.8000	0.54
Alexandria(EGY)	EGY	31.1833	29.8667	0.54
El Agami Is.	EGY	31.1500	29.7833	0.54
Adabiya	EGY	29.8667	32.4667	0.89
Port Said	EGY	31.2500	32.3000	0.57
Port Fouad	EGY	31.2333	32.3333	0.57
Abu Rudeis	EGY	28.9000	33.1667	0.54
Fayid	EGY	30.3333	32.3000	0.75
Nuweiba	EGY	28.9667	34.6333	0.91
Nifisha	EGY	30.5667	32.2500	0.72
Ismailia	EGY	30.5833	32.2833	0.72
Abu Sultan	EGY	30.4167	32.3000	0.72
Ras Gharib	EGY	28.3500	33.1167	0.45
Abu Zenima	EGY	29.0333	33.1167	0.80
Fanara	EGY	30.2833	32.3500	0.71
Ras Misalla	EGY	29.8167	32.6167	0.80
Sadat	EGY	29.8000	32.4500	0.80
Marakib	EGY	29.9167	32.5667	0.79
Suez	EGY	29.9667	32.5500	0.79
Port Ibrahim	EGY	29.9333	32.5500	0.79
El Tur	EGY	28.2167	33.6167	0.41
Safaga	EGY	26.7333	33.9333	0.69
Marsa Gemsa	EGY	27.6500	33.6000	0.44
Sharm el Sheikh	EGY	27.8500	34.2833	0.48
Hamrawein	EGY	26.2500	34.2000	0.50
Kosseir	EGY	26.1000	34.2833	0.51
Hurghada	EGY	27.2500	33.8167	0.55
Abu Ghosoun	EGY	24.4333	35.1833	0.78
Assab	ERI	13.0000	42.7500	1.10
Laayoune	ESH	27.0833	-13.4333	0.23
Dakhla	ESH	23.7000	-15.9167	0.23
Ceuta	ESP	35.8833	-5.3167	1.29
Motril	ESP	36.7167	-3.5167	1.13
Tarragona	ESP	41.1000	1.2333	1.29
Villanueva y Geltru	ESP	41.2167	1.7333	1.17
Melilla	ESP	35.2833	-2.9333	1.00
San Carlos de la Rapita	ESP	40.6000	0.6000	1.20
Alcanar	ESP	40.5833	0.5500	1.20

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Castellon	ESP	39.9667	0.0167	1.10
Vinaroz	ESP	40.4667	0.4667	1.17
Malaga	ESP	36.7178	-4.4250	1.12
Ciudadela	ESP	40.0000	3.8333	1.05
Burriana	ESP	39.8667	-0.0667	1.12
Sagunto	ESP	39.6500	-0.2167	1.04
Tarifa	ESP	36.0000	-5.6000	0.98
Carboneras	ESP	37.0000	-1.8833	0.97
Garrucha	ESP	37.1667	-1.8333	0.97
Valencia	ESP	39.4500	-0.3000	1.04
Cartagena(ESP)	ESP	37.5833	-0.9833	0.97
Escombreras	ESP	37.5500	-0.9667	0.97
San Pedro del Pinatar	ESP	37.8167	-0.7500	0.96
Torre Vieja	ESP	37.9667	-0.6833	0.96
San Antonio(ESP)	ESP	38.9833	1.3000	1.01
Alicante	ESP	38.3333	-0.4833	0.98
Santa Pola	ESP	38.2000	-0.5667	0.96
Gandia	ESP	39.0000	-0.1500	1.02
Cullera	ESP	39.1833	-0.2167	1.02
Aguilas	ESP	37.4000	-1.5667	1.07
La Savina	ESP	38.7333	1.4167	0.99
Ibiza	ESP	38.9000	1.4667	0.99
La Canal	ESP	38.8333	1.3833	0.99
Denia	ESP	38.8333	0.1167	1.00
Formentera	ESP	38.6500	1.5833	0.97
Barbate	ESP	36.1667	-5.9833	0.91
Porto Colom	ESP	39.4333	3.2500	0.93
Mahon	ESP	39.8667	4.3000	0.94
Puerto Pollensa	ESP	39.8833	3.0667	0.94
Alcudia	ESP	39.8333	3.1333	0.94
San Fernando(ESP)	ESP	36.4667	-6.2000	1.19
Rota	ESP	36.6167	-6.3667	0.89
Cadiz	ESP	36.5000	-6.3333	0.89
Puerto de Santa Maria	ESP	36.6000	-6.2333	1.11
Almeria	ESP	36.8333	-2.5000	0.91
Roquetas	ESP	36.7500	-2.6167	0.91
Puerto Real	ESP	36.5333	-6.1833	1.28
Suva	FJI	-18.1333	178.4167	0.45
Ellington	FJI	-17.3333	178.2167	0.46
Malau	FJI	-16.3500	179.3667	0.57
Labasa	FJI	-16.4333	179.3833	0.57
Levuka	FJI	-17.6833	178.8500	0.76
Lautoka	FJI	-17.6000	177.4333	0.81
Rotuma Is.	FJI	-12.5000	177.0833	1.08
Villefranche	FRA	43.7000	7.3167	1.27
Nice	FRA	43.7000	7.2833	1.27
Beaulieu	FRA	43.7000	7.3333	1.27
Porto Vecchio	FRA	41.6000	9.2833	1.08
Yap	FSM	9.5000	138.1333	1.10
Pohnpei	FSM	6.9833	158.2167	1.14
Mayumba	GAB	-3.3833	10.6333	0.46

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
La Mondah	GAB	0.5833	9.5500	0.87
Libreville	GAB	0.4000	9.4333	1.13
Cap Lopez	GAB	-0.6333	8.7000	0.64
Port Gentil	GAB	-0.7167	8.7833	0.65
Nyanga	GAB	-3.0000	10.2500	0.63
Gamba Term.	GAB	-2.7833	10.0000	0.62
Tema	GHA	5.6167	0.0167	0.51
Takoradi	GHA	4.8833	-1.7333	0.57
Conakry	GIN	9.5000	-13.7167	0.72
Tamara Port	GIN	9.4500	-13.8333	0.82
Kassa Is.	GIN	9.4667	-13.7333	0.85
Basse Terre	GLP	16.0333	-61.7500	0.27
Pointe a Pitre	GLP	16.2167	-61.5333	0.61
St. Martin	GLP	18.0333	-63.0500	0.75
Marigot(GLP)	GLP	18.0667	-63.1000	0.75
St. Barthelemy	GLP	17.9167	-62.8333	0.75
Gustavia	GLP	17.9167	-62.8333	0.75
Marie Galante	GLP	15.8833	-61.3167	0.80
Banjul	GMB	13.4500	-16.5667	0.43
Luba	GNQ	3.4667	8.5500	0.59
Utonde	GNQ	1.9167	9.8000	0.51
Bata	GNQ	1.8667	9.7667	0.51
Rio Benito	GNQ	1.5833	9.6167	0.55
Pagalu Is.	GNQ	-1.4500	5.6167	0.55
Malabo	GNQ	3.7500	8.7833	0.97
Rio Etembue	GNQ	1.2667	9.4500	0.91
Samothraki	GRC	40.4500	25.5333	1.27
Myrina	GRC	39.8667	25.0500	1.17
Ayios Evstratios	GRC	39.5167	24.9667	1.14
Mytilene	GRC	39.1000	26.5833	1.13
Stratoni	GRC	40.5167	23.8500	1.12
Rafina	GRC	38.0167	24.0000	1.06
Proti Is.	GRC	37.0500	21.5500	1.22
Kiato	GRC	38.0167	22.7333	1.10
Kimi	GRC	38.6333	24.1000	1.05
Karistos	GRC	38.0167	24.4167	1.05
Skopelos	GRC	39.1167	23.7500	1.05
Alonisos	GRC	39.1500	23.8333	1.05
Andros	GRC	37.8167	24.9000	1.04
Porto Rafti	GRC	37.8833	24.0000	1.03
Skiathos	GRC	39.1667	23.4833	1.03
Argostoli	GRC	38.2000	20.4833	1.22
Tinos	GRC	37.5333	25.1667	1.01
Mykonos	GRC	37.4500	25.3333	1.00
Delos	GRC	37.4000	25.2833	1.00
Kea	GRC	37.6333	24.3333	0.99
Ayios Nikolaos(Kea)	GRC	37.6667	24.3167	0.99
Laurium	GRC	37.7000	24.0667	0.99
Mandoudhi	GRC	38.8167	23.5333	0.99
Kymassi	GRC	38.8167	23.5167	0.99
Syros	GRC	37.4333	24.9500	0.98

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kithnos	GRC	37.4000	24.4667	0.98
Naxos	GRC	37.1000	25.3833	0.98
Paros	GRC	37.0833	25.3167	0.98
Karlovassi	GRC	37.8000	26.6833	1.00
Larimna	GRC	38.5667	23.3000	0.98
Serifos	GRC	37.1167	24.5333	0.97
Vatika Bay	GRC	36.5167	23.0000	0.99
Neapolis	GRC	36.5000	23.0500	0.99
Monemvasia	GRC	36.6833	23.0500	0.99
Pythagorion	GRC	37.6833	26.9333	1.28
Preveza	GRC	38.9500	20.7500	1.23
Nauplia	GRC	37.5667	22.8000	1.24
Kimolos	GRC	36.7833	24.5667	0.95
Sifnos Is.	GRC	36.9667	24.7167	0.95
Voudia Bay	GRC	36.7500	24.5333	0.95
Amorgos	GRC	36.8167	25.9000	0.95
Katakolon	GRC	37.6500	21.3333	1.16
Patmos	GRC	37.3000	26.5833	0.95
Samos	GRC	37.7500	26.9667	0.95
Ermioni	GRC	37.3833	23.2333	0.96
Hydra	GRC	37.3500	23.4667	0.96
Adhamas	GRC	36.7167	24.4500	0.93
Metokhi	GRC	37.7000	23.3833	0.95
Poros	GRC	37.5000	23.4667	0.96
Thira	GRC	36.4167	25.4500	0.92
Rethimnon	GRC	35.3667	24.4667	1.19
Megara	GRC	37.9667	23.4000	0.95
Pachi	GRC	37.9667	23.3833	0.95
Revithousa	GRC	37.9592	23.4036	0.95
Aegina	GRC	37.7333	23.4167	0.95
Piraeus	GRC	37.9333	23.6333	0.94
Drapetzona	GRC	37.9333	23.6167	0.94
Perama	GRC	37.9500	23.5833	0.94
Salamis	GRC	37.9667	23.5000	0.94
St. George Hbr.(GRC)	GRC	37.9500	23.6000	0.94
Ambelaki	GRC	37.9500	23.5333	0.94
Ayia Marina(Leros Is.)	GRC	37.1500	26.8500	0.91
Port Laki	GRC	37.1167	26.8500	0.91
Astipalia	GRC	36.5333	26.3667	0.91
Ayios Nikolaos(Crete)	GRC	35.1833	25.7167	1.04
Ayia Galini	GRC	35.1000	24.6833	1.05
Pachia Ammos	GRC	35.1167	25.8333	1.02
Kithira	GRC	36.1333	23.0000	0.90
Gythion	GRC	36.7500	22.5667	1.09
Stavros	GRC	38.4500	20.6500	0.88
Vathi	GRC	38.3667	20.7333	0.87
Platiyali	GRC	38.4667	21.1000	0.86
Halki	GRC	36.2167	27.5833	0.85
Kalymnos	GRC	36.9500	26.9833	0.83
Kissamos	GRC	35.4833	23.6333	0.85
Suda Bay	GRC	35.4833	24.0500	0.85

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Nisiros	GRC	36.6167	27.1333	0.82
Yali	GRC	36.6500	27.1167	0.82
Gavdo	GRC	34.8333	24.0667	0.83
Araxos	GRC	38.1667	21.4000	0.84
Sitia	GRC	35.2167	26.1167	0.96
Cape Tainaron	GRC	36.3833	22.4833	0.85
Karpathos	GRC	35.5000	27.2000	0.82
Skaramanga	GRC	38.0000	23.5833	1.21
Iraklion	GRC	35.2667	25.1667	0.82
Linoperamata	GRC	35.3500	25.0500	0.82
Kos	GRC	36.8833	27.3167	0.80
Zante	GRC	37.7833	20.9000	0.84
Pylos	GRC	36.9167	21.7000	0.82
Kyllini	GRC	37.9500	21.1500	0.80
Kali Limenes	GRC	34.9333	24.8333	0.78
Kyparissia	GRC	37.2500	21.6833	0.80
Simi	GRC	36.6167	27.8333	0.72
Rhodes	GRC	36.4500	28.2333	0.68
St. George's(GRD)	GRD	12.0500	-61.7500	0.82
Carriacou	GRD	12.4833	-61.4167	0.83
Santo Tomas de Castilla	GTM	15.6936	-88.6153	0.83
Champerico	GTM	14.3000	-91.9333	0.87
Livingston	GTM	15.8333	-88.7500	0.95
Puerto Barrios	GTM	15.7278	-88.5992	0.95
San Jose(GTM)	GTM	13.9167	-90.8167	1.06
Puerto Quetzal	GTM	13.9300	-90.7903	1.06
Cayenne	GUF	4.9333	-52.3333	0.85
Salut Is.	GUF	5.2500	-52.5833	0.85
Devil's Is.	GUF	5.2667	-52.5667	0.85
Iles du Salut	GUF	5.2833	-52.6000	0.84
Degrad des Cannes	GUF	4.8500	-52.2667	0.87
Agana	GUM	13.4833	144.7500	1.04
Apra	GUM	13.4500	144.6167	1.04
Skeldon	GUY	5.8667	-57.1333	0.70
Port Springlands	GUY	5.9000	-57.1333	0.70
Georgetown(GUY)	GUY	6.8167	-58.1833	0.77
Demerara	GUY	6.8167	-58.1833	0.77
Trujillo(HND)	HND	15.8500	-86.0000	0.55
Guanaja Is.	HND	16.4167	-85.9667	0.84
Puerto Castilla	HND	16.0167	-86.0500	0.85
Roatan Is.	HND	16.2667	-86.6667	0.87
La Ceiba(HND)	HND	15.7833	-86.7500	0.88
Porvenir(HND)	HND	15.7500	-86.9000	0.88
Tela	HND	15.7833	-87.5000	0.89
Puerto Cortes	HND	15.8500	-87.9333	0.90
Omoa	HND	15.7833	-88.0667	0.92
Sali	HRV	43.9167	15.1667	1.23
Milna	HRV	43.3167	16.4500	1.21
Hvar	HRV	43.2667	16.4500	1.21
Stari Grad	HRV	43.2000	16.5500	1.19
Vela Luka	HRV	42.9833	16.6167	1.19

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Komiza	HRV	43.0333	16.0833	1.19
Brna	HRV	42.9000	16.8500	1.12
Lastovo	HRV	42.7667	16.9000	1.12
Ubli	HRV	42.7333	16.8167	1.12
Petit Goave	HTI	18.4333	-72.8667	0.44
Laffiteau	HTI	18.7167	-72.4333	0.53
Fond Mombin	HTI	18.7500	-72.4667	0.53
Miragoane	HTI	18.4667	-73.1000	0.55
St. Marc	HTI	19.1167	-72.7000	0.62
Port au Prince	HTI	18.5500	-72.3500	0.63
Port de Paix	HTI	19.9500	-72.8333	0.64
Gonaives	HTI	19.4500	-72.7000	0.68
Fort Liberte	HTI	19.6833	-71.8500	0.97
Cap Haitien	HTI	19.7667	-72.2000	0.80
Jacmel	HTI	18.2167	-72.5167	0.89
Aux Cayes	HTI	18.1833	-73.7333	0.90
Jeremie	HTI	18.6500	-74.1167	0.93
Luwuk	IDN	-0.9333	122.7833	0.48
Gorontalo	IDN	0.5000	123.0500	0.46
Tehoru	IDN	-3.3333	129.4667	0.52
Buli	IDN	0.8667	128.2833	0.55
Tapaktuan	IDN	3.2667	97.2000	0.59
Manggis	IDN	-8.4833	115.5167	0.57
Ende	IDN	-8.8500	121.6500	0.55
Kota Agung	IDN	-5.5000	104.6167	0.63
Kempo	IDN	-8.6667	118.1833	0.58
Lhoknga	IDN	5.4500	95.2333	0.61
Bintuhan	IDN	-4.8167	103.3667	0.66
Bima	IDN	-8.4167	118.7167	0.88
Fak Fak	IDN	-2.9333	132.3000	0.66
Meneng	IDN	-8.1167	114.3833	0.66
Bitung	IDN	1.4333	125.1833	0.67
Tanjung Benete	IDN	-8.8833	116.7333	0.67
Baubau	IDN	-5.4500	122.6000	0.67
Kaimana	IDN	-3.6500	133.7333	0.66
Gilimanuk	IDN	-8.1667	114.4333	0.69
Tanjung Wangi	IDN	-8.2000	114.3833	0.69
Masohi	IDN	-3.3167	128.9833	0.68
Poso	IDN	-1.3833	120.7500	0.70
Teluk Bayur	IDN	-1.0000	100.3500	0.73
Telukbetung	IDN	-5.4500	105.2667	0.75
Panjang	IDN	-5.4667	105.3333	0.75
Tilamuta	IDN	0.5333	122.3833	0.73
Lembar	IDN	-8.5667	116.0667	0.70
Ampenan	IDN	-8.5847	116.0833	0.70
Palu	IDN	-0.8667	119.8500	0.73
Meulaboh	IDN	4.1333	96.1333	0.71
Saumlaki	IDN	-8.0000	131.2833	0.70
Larantuka	IDN	-8.3333	123.0000	0.71
Pantoloan	IDN	-0.7000	119.8333	0.75
Raha	IDN	-4.8333	122.7167	0.74



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tomini	IDN	0.5000	120.5500	0.77
Pangkalbalam	IDN	-2.1000	106.1667	0.81
Pangkalpinang	IDN	-2.1333	106.1500	0.81
Tolitoli	IDN	1.0833	120.8000	0.78
Benjina	IDN	-6.0500	134.2667	0.76
Pomalaa	IDN	-4.1667	121.5833	0.77
Cilacap	IDN	-7.7333	109.0000	0.79
Pare Pare	IDN	-4.0000	119.6167	0.79
Nabire	IDN	-3.3833	135.5167	0.79
Libuo	IDN	0.4500	122.0000	0.80
Parigi	IDN	-0.8333	120.2167	0.80
Kolaka	IDN	-4.0500	121.5833	0.78
Sibolga	IDN	1.7333	98.7667	0.81
Buleleng	IDN	-8.1000	115.1000	0.80
Calang	IDN	4.6167	95.5833	0.79
Singkel	IDN	2.2667	97.8000	0.80
Belinyu	IDN	-1.6500	105.7833	0.86
Tarahan	IDN	-5.6667	105.4667	0.84
Biringkassi	IDN	-4.8167	119.5000	0.83
Biak	IDN	-1.1667	136.0667	0.82
Siberut Is.	IDN	-1.6000	99.2167	0.83
Waisarissa	IDN	-3.2000	128.2667	0.82
Batu Licin	IDN	-3.4500	116.0000	0.86
Tarjun	IDN	-3.2667	116.0833	0.86
Malili	IDN	-2.6333	120.9833	0.85
Palopo	IDN	-2.9833	120.2167	0.86
Jayapura	IDN	-2.5333	140.7167	0.85
Karosa	IDN	-1.7667	119.3500	0.86
Maumere	IDN	-8.6000	122.2167	0.83
Tegal	IDN	-6.8500	109.1333	0.87
Benoa	IDN	-8.7500	115.2500	0.85
Kambunong	IDN	-1.9500	119.2833	0.89
Pontianak	IDN	-0.0167	109.3500	0.90
Tanahmerah	IDN	3.6667	117.6000	0.86
Lhokseumawe	IDN	5.1667	97.1500	0.88
Babo	IDN	-2.5500	133.4333	0.87
Belawan	IDN	3.8000	98.7167	0.91
Bengkulu	IDN	-3.7833	102.2500	0.90
Pasuruan	IDN	-7.6167	112.8833	0.89
Dumai	IDN	1.6833	101.4500	0.95
Sampaga	IDN	-2.3000	119.1500	0.91
Kendawangan	IDN	-2.4667	110.1833	0.93
Sampit	IDN	-2.9833	113.0500	0.93
Salawati	IDN	-1.3500	130.9833	0.91
Labuan Amuk	IDN	-8.5500	115.5500	0.89
Sorong	IDN	-0.8833	131.2333	0.92
Kasim	IDN	-1.3000	131.0167	0.92
Merauke	IDN	-8.4667	140.3833	0.90
Pangkalan Bun	IDN	-2.9500	111.4000	0.96
Amamapare	IDN	-4.8167	136.9667	0.93
Singkawang	IDN	0.9167	108.9667	0.96

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Muara Pantai	IDN	1.9833	117.8667	0.96
Bula	IDN	-3.0833	130.4833	0.94
Kualasamboja	IDN	-1.0167	117.0833	0.96
Balikpapan	IDN	-1.2667	116.8167	0.97
Waingapu	IDN	-9.6167	120.2167	0.95
Amahai	IDN	-3.3167	128.9333	0.95
Dobo	IDN	-5.7667	134.2167	0.96
Tanjung Bara	IDN	0.5333	117.6333	0.99
Badas	IDN	-8.4667	117.3667	0.97
Wayame	IDN	-3.6667	128.1667	0.97
Ambon	IDN	-3.7000	128.1667	0.97
Jakarta	IDN	-6.1000	106.8667	1.01
Kupang	IDN	-10.1667	123.5667	0.97
Tual	IDN	-5.6333	132.6667	0.97
Atapupu	IDN	-9.0333	124.8833	0.98
Manggar	IDN	-2.8333	108.1667	1.00
Pemangkat	IDN	1.1333	108.9167	1.01
Kaiwatu	IDN	-8.1000	127.8167	0.99
Kendari	IDN	-3.9667	122.5833	1.00
Enggano Is.	IDN	-5.4167	102.2500	1.01
Taliabu Is.	IDN	-0.0333	125.0000	1.00
Namlea	IDN	-3.2667	127.0833	1.01
Banggai	IDN	-1.5000	123.5167	1.02
Sangkapura	IDN	-5.8667	112.6833	1.03
Surabaya	IDN	-7.2000	112.7333	1.04
Tanjung Pandan	IDN	-2.7500	107.6333	1.04
Makassar	IDN	-5.1333	119.4000	1.03
Gresik	IDN	-7.1500	112.6500	1.04
Tuban	IDN	-6.7667	111.9500	1.04
Tarakan	IDN	3.2833	117.6000	1.03
Buru Is.	IDN	-3.1000	126.1000	1.03
Pulau Bunyu	IDN	3.4167	117.9500	1.04
Obi Is.	IDN	-1.5000	127.6667	1.04
Bangkalan	IDN	-7.0333	112.7333	1.06
Celukan Bawang	IDN	-8.1833	114.8333	1.07
Tanjung Pinang	IDN	0.9333	104.4500	1.07
Cirebon	IDN	-6.6833	108.5500	1.08
Nunukan	IDN	4.0833	117.6167	1.06
Manado	IDN	1.5000	124.8333	1.06
Satui	IDN	-3.8167	115.4833	1.10
Kalianget	IDN	-7.0667	113.9833	1.08
Tahuna	IDN	3.5833	125.5000	1.07
Ketapang	IDN	-1.8333	109.9833	1.09
Kijang	IDN	0.8500	104.6167	1.10
Probolinggo	IDN	-7.7167	113.2167	1.09
Semarang	IDN	-6.9667	110.4167	1.10
Anyer	IDN	-6.0333	105.9333	1.11
Bojonegara	IDN	-5.9500	106.0833	1.12
Tanjung Sekong	IDN	-5.9167	106.0000	1.12
Suralaya	IDN	-5.8833	106.0167	1.12
Prointal	IDN	-5.9500	106.0000	1.12

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Gremyang	IDN	-5.9333	106.1167	1.12
Tanjung Gerem	IDN	-5.9333	106.0000	1.12
Merak	IDN	-5.9333	105.9667	1.13
Banten	IDN	-6.0167	105.9667	1.12
Cigading	IDN	-6.0167	105.9500	1.12
Panarukan	IDN	-7.7000	113.9333	1.11
Kabil	IDN	1.0833	104.1333	1.13
Tanjung Uban	IDN	1.0667	104.2167	1.13
Batu Ampar	IDN	1.1667	104.0000	1.13
Sigli	IDN	5.4000	95.9833	1.12
Situbondo	IDN	-7.7000	114.1167	1.12
Kalbut	IDN	-7.6167	113.9833	1.12
Sekupang	IDN	1.1333	103.9333	1.14
Pulau Sambu	IDN	1.1500	103.9000	1.14
Pulau Batam	IDN	1.1333	103.9167	1.14
Dabo	IDN	-0.5000	104.5667	1.16
Tobelo	IDN	1.7333	128.0000	1.13
Bontang	IDN	0.1000	117.4833	1.14
Sungei Pakning	IDN	1.3667	102.1833	1.18
Bengkalis	IDN	1.4667	102.1000	1.18
Muntok	IDN	-2.0667	105.1667	1.19
Penuba	IDN	-0.3333	104.4667	1.19
Telok Ayer	IDN	-0.7333	109.5667	1.18
Gunung Sitoli	IDN	1.2833	97.6167	1.16
Krueng Geukueh	IDN	5.2333	97.0500	1.18
Blang Lancang	IDN	5.2500	97.0667	1.18
Sabang(IDN)	IDN	5.8833	95.3167	1.19
Selatpanjang	IDN	0.9667	102.6667	1.21
Sembilan Is.(IDN)	IDN	4.1333	98.2500	1.21
Pangkalan Brandan	IDN	4.0333	98.2833	1.21
Majene	IDN	-3.5500	118.9667	1.19
Tanjung Berlayar	IDN	-3.0167	116.2667	1.21
Kota Baru	IDN	-3.2333	116.2333	1.22
Pulau Cawang	IDN	-0.1000	103.5500	1.25
Plaju	IDN	-2.9833	104.8333	1.27
Sungei Gerong	IDN	-2.9833	104.8500	1.27
Palembang	IDN	-2.9833	104.7667	1.27
Pusri	IDN	-2.9833	104.7833	1.27
Kuala Tanjung	IDN	3.3500	99.4833	1.25
Sarmi	IDN	-1.8500	138.7500	1.21
Uleelheue	IDN	5.5500	95.2833	1.22
Kruengraya	IDN	5.6000	95.5000	1.22
Tanjung Balai	IDN	2.9667	99.8000	1.23
Sinabang	IDN	2.4833	96.3833	1.22
Teluk Nibung	IDN	3.0000	99.8167	1.23
Mamuju	IDN	-2.6833	118.9167	1.23
Manokwari	IDN	-0.8667	134.0833	1.24
Mandvi	IND	22.8167	69.3500	0.64
Mundra	IND	22.9000	69.7000	0.65
Veraval	IND	20.9000	70.3667	0.63
Dwarka	IND	22.2500	68.9667	0.66

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Jamnagar Term.	IND	22.5000	69.8333	0.68
Sikka	IND	22.5667	69.8000	0.68
Port Okha	IND	22.4667	69.0833	0.67
Jakhau	IND	23.2333	68.5833	0.76
Porbandar	IND	21.6000	69.6000	0.68
Muldwarka	IND	20.7500	70.6500	0.65
Salaya	IND	22.3000	69.5833	0.69
Navlakhi	IND	22.9667	70.4500	0.72
Bedi	IND	22.5167	70.0333	0.96
Rozi Is.	IND	22.5333	70.0500	0.71
Gopalpur	IND	19.2500	84.9000	0.76
Jafarabad	IND	20.8667	71.3667	0.75
Kandla	IND	23.0333	70.2167	1.12
Belekeri	IND	14.7000	74.2500	0.74
Port Canning	IND	22.2500	88.6333	1.02
Pipavav	IND	20.9833	71.5667	0.78
Kulpi	IND	22.1000	88.2167	0.98
Diamond Hbr.	IND	22.1833	88.1833	0.98
Haldia	IND	22.0167	88.0833	0.98
Alang	IND	21.4000	72.1500	0.86
Bhavnagar	IND	21.7500	72.2333	0.78
Dahej	IND	21.7167	72.5833	0.80
Tadri	IND	14.5167	74.3500	0.80
Kalingapatnam	IND	18.3333	84.1333	0.88
Hazira	IND	21.1000	72.6500	0.83
Saugor Is.	IND	21.6500	88.0500	1.01
Sandheads	IND	20.9000	88.2333	0.98
Dahanu	IND	19.9833	72.7667	0.84
Karwar	IND	14.8167	74.1000	0.84
Revadanda	IND	18.5500	72.9000	0.86
Kochi(IND)	IND	9.9667	76.2333	0.87
Dhamra	IND	20.7833	86.9000	1.01
Ratnagiri	IND	16.9833	73.2833	0.87
Bhagwati Bunder	IND	17.0000	73.2667	0.87
Mangalore	IND	12.8333	74.8167	0.89
New Mangalore	IND	12.9167	74.8000	0.89
Alleppey	IND	9.5000	76.3167	0.89
Paradip	IND	20.2667	86.6833	1.03
Krishnapatnam	IND	14.3000	80.0833	0.97
Kozhikode	IND	11.2667	75.7667	0.91
Nagapattinam	IND	10.7667	79.8500	0.92
Cannanore	IND	11.8667	75.3667	0.92
Tirukkadaiyur	IND	11.0833	79.8333	0.94
Colachel	IND	8.1667	77.2500	0.95
Bheemunipatnam	IND	17.9000	83.4500	1.04
Mumbai	IND	18.9000	72.8167	0.94
Jawaharlal Nehru	IND	18.9333	72.8500	0.94
Beypore	IND	11.1667	75.8000	0.95
Thalassery	IND	11.7500	75.4667	0.95
Thiruvananthapuram	IND	8.4833	76.9500	0.95
Ennore	IND	13.2333	80.3333	0.97

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Visakhapatnam	IND	17.7000	83.3000	1.02
Cuddalore	IND	11.7000	79.7667	0.97
Pondicherry	IND	11.9333	79.8333	0.97
Chennai	IND	13.0833	80.2833	0.97
Kakinada	IND	17.0000	82.2833	1.03
Dighi	IND	18.2500	72.9167	0.98
Kollam	IND	8.8667	76.5833	0.99
Neendakara	IND	8.9333	76.5500	0.99
Machilipatnam	IND	16.1667	81.2000	1.07
New Tuticorin	IND	8.7500	78.2167	1.00
Tuticorin	IND	8.8000	78.1833	1.00
Valinokkam	IND	9.1167	78.6500	0.99
Mormugao	IND	15.4167	73.8000	0.99
Vengurla	IND	15.8333	73.6167	0.99
Panaji	IND	15.4833	73.8167	0.99
Redi	IND	15.7500	73.6667	0.99
Car Nicobar	IND	9.1667	92.7500	1.06
Dabhol	IND	17.6000	73.1500	1.04
Port Blair	IND	11.6667	92.7167	1.08
Coondapoor	IND	13.6167	74.6667	1.07
Malpe	IND	13.3500	74.7000	1.07
Kiltan	IND	11.4833	73.0000	1.13
Kadmat	IND	11.2167	72.7667	1.14
Minicoy	IND	8.2833	73.0667	1.14
Kavaratti	IND	10.5667	72.6333	1.14
Kalpeni	IND	10.1000	73.6500	1.15
Androth	IND	10.8167	73.6667	1.15
Diego Garcia	IOT	-7.2833	72.4167	0.90
Bandar Imam Khomeini	IRN	30.4167	49.0667	0.78
Bandar Mahshahr	IRN	30.4667	49.1833	0.78
Asaluyeh Term.	IRN	27.5167	52.5333	0.99
Bandar Taheri	IRN	27.6500	52.3500	1.00
Imam Hasan	IRN	29.8000	50.1833	0.76
Kharg Is.	IRN	29.2333	50.3167	0.82
Bushire	IRN	28.9833	50.8333	1.01
Ganaveh	IRN	29.5667	50.5167	1.09
Kish Is.	IRN	26.5500	54.0333	0.95
Chah Bahar	IRN	25.3333	60.5333	0.82
Bandar Lengeh	IRN	26.5500	54.8833	0.99
Hormuz Is.	IRN	27.0667	56.4667	1.02
Bandar Abbas	IRN	27.1333	56.2000	1.02
Bandar Shahid Rejaie	IRN	27.1000	56.0667	1.05
Kaveh	IRN	26.9333	56.0167	1.00
Ras Maidani	IRN	25.4000	59.1000	0.93
Jask	IRN	25.6500	57.7667	1.05
Lavan Is.	IRN	26.7833	53.3333	1.11
Henjam	IRN	26.6500	55.9000	1.09
Sirri Is.	IRN	25.9000	54.5500	1.15
Haifa	ISR	32.8167	35.0000	0.85
Tel Aviv	ISR	32.1000	34.7833	0.80
Ashkelon	ISR	31.6667	34.5500	0.80

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Hadera	ISR	32.4500	34.9167	0.81
Akko	ISR	32.9167	35.0667	0.78
Ashdod	ISR	31.8258	34.6542	0.57
Eilat	ISR	29.5500	34.9500	0.93
Imperia	ITA	43.8833	8.0333	1.27
Termoli	ITA	42.0000	15.0000	1.25
Ortona	ITA	42.3500	14.4167	1.26
Pescara	ITA	42.4667	14.2333	1.26
Santa Teresa Gallura	ITA	41.2333	9.1667	1.26
Tremiti Is.	ITA	42.1167	15.5000	1.22
Barletta	ITA	41.3167	16.2667	1.19
Trani	ITA	41.2833	16.4167	1.19
Alghero	ITA	40.5667	8.3167	1.21
Porto Cervo	ITA	41.1333	9.5500	1.13
Golfo Aranci	ITA	41.0000	9.6167	1.13
Olbia	ITA	40.9167	9.5667	1.13
Capraia Is.	ITA	43.0500	9.9000	1.12
Sarroch	ITA	39.0833	9.0333	1.23
Santa Liberata	ITA	42.4167	11.1500	1.12
Porto Santo Stefano	ITA	42.4500	11.1167	1.12
Porto Torres	ITA	40.8333	8.4000	1.09
Giglio Is.	ITA	42.3667	10.9167	1.08
Vallone	ITA	42.7000	10.4000	1.07
Palau(ITA)	ITA	41.1833	9.3833	1.15
La Maddalena	ITA	41.2167	9.4000	1.15
Portoferraio	ITA	42.8167	10.3333	1.05
Rio Marina	ITA	42.8167	10.4333	1.05
Porto Azzurro	ITA	42.7667	10.4000	1.05
Vibo Valentia	ITA	38.7167	16.1333	1.18
Cagliari	ITA	39.2000	9.0833	1.17
Santa Giusta	ITA	39.8833	8.6167	1.27
Porto Vesme	ITA	39.2000	8.4000	1.02
Sant' Antioco	ITA	39.0333	8.4333	1.02
Portoscuso	ITA	39.2167	8.3667	1.02
Carloforte	ITA	39.1500	8.3167	1.02
Taranto	ITA	40.4500	17.2000	1.07
Gallipoli	ITA	40.0500	18.0000	1.24
Piombino	ITA	42.9333	10.5500	1.02
Otranto	ITA	40.1500	18.5000	1.05
Anzio	ITA	41.4500	12.6333	1.01
Brindisi	ITA	40.6500	17.9833	1.06
Oristano	ITA	39.8667	8.5500	1.11
Gaeta	ITA	41.2167	13.5833	1.00
Ciro Marina	ITA	39.3667	17.1333	1.04
Crotone	ITA	39.0833	17.1333	1.03
Agropoli	ITA	40.3333	14.9667	0.97
Marina di Catanzaro	ITA	38.8167	16.6167	1.15
Capri	ITA	40.5500	14.2500	0.97
Positano	ITA	40.6167	14.4667	0.97
Sorrento	ITA	40.6333	14.3833	0.97
Ponza	ITA	40.9000	12.9667	0.98

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Porto d'Ischia	ITA	40.7333	13.9500	0.97
Casamicciola Terme	ITA	40.7500	13.9000	0.97
Palermo	ITA	38.1167	13.3667	1.08
Gela	ITA	37.0667	14.2500	1.01
Torregrotta	ITA	38.2000	15.3667	1.09
Porto Empedocle	ITA	37.2833	13.5333	1.01
Marsala	ITA	37.8000	12.4333	0.90
Favignana	ITA	37.9333	12.3333	0.90
Reggio di Calabria	ITA	38.1167	15.6500	0.94
Messina	ITA	38.2000	15.5667	0.94
Villa San Giovanni	ITA	38.2167	15.6333	0.94
Pantelleria	ITA	36.7833	12.0000	0.90
Marzamemi	ITA	36.7500	15.1167	0.90
Avola	ITA	36.9000	15.1500	0.91
Licata	ITA	37.1000	13.9333	0.97
Santa Panagia	ITA	37.1167	15.2667	0.91
Siracusa	ITA	37.0500	15.3000	0.91
Capo San Vito	ITA	38.2000	12.7167	0.93
Trapani	ITA	38.0333	12.5167	0.93
Porto Xifonio	ITA	37.2333	15.2333	0.90
Pozzallo	ITA	36.7167	14.8500	0.88
Castellammare del Golfo	ITA	38.0333	12.8833	0.93
Stromboli	ITA	38.8000	15.2500	0.91
Lipari	ITA	38.4667	14.9500	0.92
Vulcano	ITA	38.4167	14.9667	0.92
Taormina	ITA	37.8500	15.3000	0.89
Giardini	ITA	37.8333	15.2833	0.89
Panarea	ITA	38.6333	15.0667	0.91
Riposto	ITA	37.7333	15.2167	1.05
Termini Imerese	ITA	37.9833	13.7000	0.91
Porticello	ITA	38.0833	13.5333	0.91
Salina	ITA	38.5667	14.8667	0.91
Rinella	ITA	38.5500	14.8333	0.91
Ustica	ITA	38.7000	13.1833	0.91
Mazara del Vallo	ITA	37.6500	12.5833	0.90
Sciacca	ITA	37.5000	13.0833	0.90
Gioia Tauro	ITA	38.4333	15.9000	0.99
Augusta	ITA	37.2000	15.2167	0.99
Linosa Is.	ITA	35.8667	12.8500	0.83
Lampedusa Is.	ITA	35.5000	12.6000	0.82
Milazzo	ITA	38.2167	15.2500	0.92
St. Anns Bay	JAM	18.4333	-77.2000	0.32
Ocho Rios	JAM	18.4167	-77.1167	0.32
Port Rhoades	JAM	18.4697	-77.4567	0.41
Rio Bueno	JAM	18.4667	-77.4500	0.41
Port Kaiser	JAM	17.8833	-77.6000	0.88
Alligator Pond	JAM	17.8667	-77.5833	0.60
Montego Bay	JAM	18.4667	-77.9333	0.69
Kingston(JAM)	JAM	17.9667	-76.8000	0.97
Port Esquivel	JAM	17.8833	-77.1333	0.75
Rocky Point	JAM	17.8167	-77.1500	0.79

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Port Royal(JAM)	JAM	17.9333	-76.8500	0.80
Black River	JAM	18.0167	-77.8833	0.82
Salt River	JAM	17.8333	-77.1667	0.88
Port Antonio	JAM	18.1833	-76.4500	0.90
Oracabessa	JAM	18.4167	-76.9833	0.91
Savanna la Mar	JAM	18.2000	-78.1333	0.93
Falmouth(JAM)	JAM	18.4833	-77.6500	0.96
Lucea	JAM	18.4500	-78.1667	1.05
Aqaba	JOR	29.5167	35.0167	0.99
Tokai	JPN	36.4500	140.5833	1.22
Nakaminato	JPN	36.3500	140.6333	1.22
Onahama	JPN	36.9333	140.9167	1.09
Sakaiminato	JPN	35.5333	133.2500	1.24
Arida	JPN	34.0833	135.1167	1.20
Shimotsu	JPN	34.1167	135.1333	1.20
Kainan	JPN	34.1500	135.1833	1.20
Wakayama	JPN	34.2000	135.1333	1.20
Kawanoe	JPN	34.0167	133.5333	1.28
Mishima-Kawanoe	JPN	34.0167	133.5667	1.28
Iwakuni	JPN	34.1667	132.2500	1.19
Kanokawa	JPN	34.1667	132.4333	1.19
Ogaki	JPN	34.1667	132.4500	1.19
Matsuyama	JPN	33.8500	132.7000	1.12
Yokkaichi	JPN	34.9500	136.6500	1.19
Futtsu	JPN	35.3000	139.8167	0.93
Uraga	JPN	35.2333	139.7333	0.93
Kisarazu	JPN	35.3667	139.8833	1.18
Hitakatsu	JPN	34.6833	129.4500	1.05
Taisha	JPN	35.4333	132.6667	1.11
Gotsu	JPN	35.0000	132.2167	1.10
Naruto	JPN	34.1833	134.6167	1.10
Komatsushima	JPN	34.0000	134.6000	1.10
Tokushima	JPN	34.0500	134.6000	1.10
Usami	JPN	35.0000	139.1000	0.89
Tsu	JPN	34.6833	136.5500	1.05
Ikata	JPN	33.4833	132.3500	0.96
Kawanoishi	JPN	33.4833	132.3833	0.96
Toba	JPN	34.4833	136.8500	1.02
Miura	JPN	35.1333	139.6167	0.85
Atsumi	JPN	34.6667	137.0667	0.99
Tsutsu	JPN	34.1167	129.1833	0.97
Izuhara	JPN	34.1833	129.3000	0.96
Toyohashi	JPN	34.7167	137.3167	0.95
Yaizu	JPN	34.8667	138.3333	0.84
Oigawa	JPN	34.7833	138.3000	0.84
Misaki	JPN	33.3833	132.1333	0.83
Omaezaki	JPN	34.6000	138.2333	0.78
Nagashima	JPN	34.1833	136.3500	0.83
Shimoda	JPN	34.6667	138.9500	0.73
Moji	JPN	33.9500	130.9667	0.90
Kokura	JPN	33.9000	130.9000	0.90



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Shimonoseki	JPN	33.9333	130.9333	0.90
Mutsure	JPN	33.9667	130.8667	0.90
Nagasaki	JPN	32.7167	129.8333	0.78
Udono	JPN	33.7333	136.0167	0.74
Kamigoto	JPN	32.9833	129.0667	0.80
Matsushima	JPN	32.9333	129.6000	0.78
Oseto	JPN	32.9333	129.6500	0.78
Kuchinotsu	JPN	32.6000	130.2000	0.72
Reihoku	JPN	32.5000	130.0333	0.72
Shingu	JPN	33.7000	136.0000	0.64
Kiire	JPN	31.3833	130.5500	0.50
Kushimoto	JPN	33.4667	135.7833	0.45
Miyanoura	JPN	30.4333	130.5833	0.38
Naze	JPN	28.3833	129.5000	0.41
Heianza	JPN	26.3500	127.9500	0.46
Ishikawa	JPN	26.4167	127.8500	0.46
Naha	JPN	26.2167	127.6667	0.48
Iwojima	JPN	24.8000	141.3000	0.46
Hirara	JPN	25.8000	125.2833	0.51
Ishigaki	JPN	24.3333	124.1667	0.58
Mombasa	KEN	-4.0667	39.6833	0.67
Lamu	KEN	-2.3000	40.9167	0.73
Kilifi	KEN	-3.6500	39.8667	0.75
Kas Kong	KHM	11.3333	103.0000	0.94
Sihanoukville	KHM	10.6333	103.5000	0.94
Kiritimati	KIR	1.9833	-157.4667	0.76
Teraina	KIR	3.8500	-159.3667	0.87
Tabuaeran	KIR	4.7167	-160.4167	0.88
Betio	KIR	1.3500	172.9167	1.08
Tarawa Atoll	KIR	1.3500	172.9167	1.08
Banaba	KIR	-0.8833	169.5333	1.14
Basseterre	KNA	17.3000	-62.7167	0.76
Charlestown(KNA)	KNA	17.1333	-62.6167	0.77
Nevis	KNA	17.1333	-62.6167	0.77
Long Point	KNA	17.1167	-62.6167	0.77
Onsan	KOR	35.4500	129.3667	1.15
Okpo	KOR	34.8833	128.7167	1.09
Jeju	KOR	33.5167	126.5500	1.01
Doha(KWT)	KWT	29.3833	47.8000	0.99
Mina al Ahmadi	KWT	29.0667	48.1500	0.90
Mina Abdulla	KWT	29.0167	48.1667	0.90
Shuaiba	KWT	29.0333	48.1667	0.90
Sea Island(KWT)	KWT	29.1167	48.2833	0.83
Kubbar Is.	KWT	29.0667	48.5667	0.79
Mina Saud	KWT	28.7500	48.4333	0.81
Khor al Ami	KWT	28.6667	48.3833	1.28
Khor al Mufatta	KWT	28.6500	48.3833	1.28
Chekka	LBN	34.3333	35.7333	1.19
Tripoli(LBN)	LBN	34.4667	35.8333	1.16
Enfeh	LBN	34.3500	35.7333	1.16
Amchite	LBN	34.1500	35.6167	1.02

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Jbeil	LBN	34.1000	35.6333	1.02
Jounieh	LBN	33.9833	35.6500	1.00
Dbayeh	LBN	33.9333	35.5833	1.00
Beirut	LBN	33.9000	35.5167	1.00
Ouzai	LBN	33.8333	35.4833	0.97
Khalde	LBN	33.8000	35.4833	0.97
Selaata	LBN	34.2667	35.6500	0.57
Jieh	LBN	33.6667	35.4000	0.57
Sidon	LBN	33.5667	35.3667	0.57
Zahrani Term.	LBN	33.5333	35.3167	0.57
Sour	LBN	33.2667	35.2000	0.57
Naqura	LBN	33.1167	35.1333	0.56
Greenville(LBR)	LBR	4.9833	-9.0500	0.64
Buchanan(LBR)	LBR	5.8500	-10.0667	0.82
Grand Bassa	LBR	5.8667	-10.0667	0.82
Monrovia	LBR	6.3333	-10.8167	0.83
Ras el Hilal	LBY	32.9167	22.1833	0.88
Mellitah	LBY	32.8833	12.2500	0.79
Az Zawiyah	LBY	32.8167	12.7167	0.78
Abu Kammash	LBY	33.0667	11.8167	0.80
Derna	LBY	32.7667	22.6500	0.71
Tobruk	LBY	32.0833	23.9833	0.64
Ras Lanuf	LBY	30.5167	18.5667	0.69
Rasco Hbr.	LBY	30.5333	18.6000	0.69
Bardia	LBY	31.7500	25.1167	0.60
Khoms	LBY	32.6500	14.2667	0.62
Sirte	LBY	31.2167	16.5833	0.65
Misurata	LBY	32.3667	15.2333	0.63
Benghazi	LBY	32.1167	20.0500	0.69
Zueitina Term.	LBY	30.8500	20.0500	0.70
Ras el Mungar	LBY	31.1833	20.1000	0.71
Zuara	LBY	32.9167	12.1167	0.75
Marsa el Brega	LBY	30.4167	19.5833	0.70
Tripoli(LBY)	LBY	32.9000	13.1833	0.81
Castries	LCA	14.0167	-61.0000	0.83
Vieux Fort	LCA	13.7333	-60.9500	0.84
Cul de Sac	LCA	13.9833	-61.0333	0.84
Port Marigot(LCA)	LCA	13.9667	-61.0333	0.84
Soufriere	LCA	13.8833	-61.0667	0.84
Galle	LKA	6.0167	80.2167	0.76
Colombo	LKA	6.9000	79.8667	0.90
Jaffna	LKA	9.6667	79.9833	0.95
Kankesanturai	LKA	9.8167	80.0500	0.97
Kayts	LKA	9.7000	79.8667	0.98
Panadura	LKA	6.7167	79.9167	1.03
Pulmoddai	LKA	8.9333	80.9833	1.06
Trincomalee	LKA	8.5667	81.2167	1.06
Tangier	MAR	35.7833	-5.8000	1.25
Al Hoceima	MAR	35.2500	-3.9000	1.08
Nador	MAR	35.2667	-2.9167	1.00
Larache	MAR	35.2000	-6.1500	1.01

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tan Tan	MAR	28.5000	-11.3500	1.01
Casablanca	MAR	33.6167	-7.6000	0.94
Rabat	MAR	34.0333	-6.8333	0.94
Mehdia	MAR	34.3000	-6.6500	0.94
Agadir	MAR	30.4167	-9.6333	0.88
El Jadida	MAR	33.2667	-8.5167	0.87
Mohammedia	MAR	33.7167	-7.3667	0.86
Safi	MAR	32.3000	-9.2500	0.86
Jorf Lasfar	MAR	33.1167	-8.6333	0.84
Sidi Ifni	MAR	29.3667	-10.2000	0.73
Tarfaya	MAR	27.9333	-12.9333	0.25
Mananjary	MDG	-21.2333	48.3500	0.15
Toamasina	MDG	-18.1500	49.4167	0.29
Maroantsetra	MDG	-15.4333	49.7333	0.32
Toliary	MDG	-23.3667	43.6667	0.33
Tolagnaro	MDG	-25.0333	47.0000	0.39
Morondava	MDG	-20.2833	44.2667	0.46
Farafangana	MDG	-22.8333	47.8333	0.50
Manakara	MDG	-22.1333	48.0167	0.51
Antalaha	MDG	-14.9000	50.2833	0.51
Morombe	MDG	-21.7667	43.3333	0.53
Antsiranana	MDG	-12.2667	49.3000	0.92
Maintirano	MDG	-18.0667	44.0167	0.56
Port St. Louis	MDG	-13.0833	48.8333	0.63
Vohemar	MDG	-13.3500	50.0000	0.65
Ste. Marie Is.	MDG	-17.0000	49.9167	0.79
Mahajanga	MDG	-15.7167	46.3167	0.80
Ankify	MDG	-13.5333	48.3333	0.92
Gan Is.	MDV	-0.6833	73.1667	1.14
Male	MDV	4.1667	73.5000	1.14
El Sauzal	MEX	31.8833	-116.6833	1.25
Ensenada(MEX)	MEX	31.8500	-116.6333	1.24
Mulege	MEX	26.8833	-111.9500	0.43
Loreto	MEX	26.0167	-111.3500	0.47
Venustiano Carranza	MEX	28.0333	-114.1167	0.84
San Juan de la Costa	MEX	24.4000	-110.4000	0.42
Pichilingue	MEX	24.3000	-110.3000	0.42
La Paz(MEX)	MEX	24.1667	-110.3167	0.38
Yavaros	MEX	26.7000	-109.5167	0.90
San Carlos(Sonora)	MEX	27.9500	-111.0333	0.96
Puerto Libertad	MEX	29.9000	-112.6833	0.80
Los Barriles	MEX	23.6833	-109.6833	0.47
Cabo San Lucas	MEX	22.8333	-109.9167	0.43
Santa Rosalia	MEX	27.3333	-112.2667	1.05
San Marcos Is.	MEX	27.1833	-112.1000	1.09
Topolobampo	MEX	25.5833	-109.0500	1.06
Puerto Penasco	MEX	31.3000	-113.5333	0.98
Guaymas	MEX	27.9000	-110.8667	0.99
Puerto Vallarta	MEX	20.6167	-105.2667	0.40
Mazatlan	MEX	23.1833	-106.4333	0.45
Altamira	MEX	22.4833	-97.8833	0.51

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
San Blas	MEX	21.5333	-105.3167	0.45
Dzilam	MEX	21.4167	-88.8333	0.47
Telchac	MEX	21.3167	-89.2500	0.48
Progreso	MEX	21.2833	-89.6667	0.49
Yukalpeten	MEX	21.2833	-89.7167	0.49
La Cruz de Huanacastle	MEX	20.7500	-105.4000	0.47
Rio Lagartos	MEX	21.5667	-88.1667	0.48
Las Coloradas	MEX	21.6000	-88.0167	0.50
Tecolutla	MEX	20.4667	-97.0000	0.56
El Cuyo	MEX	21.5000	-87.6667	0.52
Coatzacoalcos	MEX	18.1500	-94.4167	0.56
Chetumal	MEX	18.5000	-88.3000	0.57
Veracruz	MEX	19.2000	-96.1333	0.56
Seybaplaya	MEX	19.6333	-90.6667	0.62
Barra de Navidad	MEX	19.1833	-104.6833	0.65
Punta Venado	MEX	20.5500	-87.1333	0.65
Playa del Carmen	MEX	20.6167	-87.0667	0.65
Calica	MEX	20.6000	-87.0833	0.65
Manzanillo(MEX)	MEX	19.0500	-104.3333	0.69
Campeche	MEX	19.8500	-90.5500	0.68
Lerma	MEX	19.8000	-90.6000	0.68
Dos Bocas	MEX	18.4167	-93.1333	1.02
Puerto Juarez	MEX	21.1833	-86.8000	0.71
Acapulco	MEX	16.8333	-99.9167	0.74
Nuevo Vallarta	MEX	20.7167	-105.3333	0.78
Pajaritos	MEX	18.13	-94.40	0.74
Cancun	MEX	21.1500	-86.7500	0.74
Ciudad del Carmen	MEX	18.6500	-91.8500	0.76
Carmen Is.	MEX	18.5167	-91.8667	1.15
Escondido	MEX	15.8333	-97.0833	0.79
Puerto Angel	MEX	15.6500	-96.5167	0.79
San Pedrito Port	MEX	19.05	-104.33	0.81
Puerto Morelos	MEX	20.8333	-86.9000	0.82
Ixtapa	MEX	17.6500	-101.6333	0.85
Zihuatanejo	MEX	17.6500	-101.5500	0.85
Cozumel	MEX	20.5000	-86.9500	0.84
Salina Cruz	MEX	16.1667	-95.1833	0.87
Huatulco	MEX	15.7500	-96.1333	0.88
Puerto Costa Maya	MEX	18.7167	-87.7000	0.90
Xcalak	MEX	18.2667	-87.8333	0.91
Puerto Chiapas	MEX	14.7000	-92.4500	0.97
Lazaro Cardenas	MEX	17.9167	-102.1833	0.97
Bikini Atoll	MHL	11.6000	165.5500	0.95
Enewetak Atoll	MHL	11.3500	162.3500	0.96
Ebeye	MHL	8.7500	167.8167	1.02
Kwajalein	MHL	8.7167	167.7333	1.02
Majuro Atoll	MHL	7.0833	171.1333	1.07
Milli Atoll	MHL	6.0833	171.7333	1.09
Jaluit	MHL	5.9167	169.6500	1.11
Mgarr	MLT	36.0167	14.3000	0.83
Gozo Is.	MLT	36.0667	14.2167	0.83

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
St. Paul's Bay	MLT	35.9500	14.4000	0.80
Valletta	MLT	35.9000	14.5167	0.80
Marsaxlokk	MLT	35.8167	14.5667	0.80
Mawlamyine	MMR	16.5000	97.6333	0.88
Thaton	MMR	16.9333	97.3500	0.91
Kawthaung	MMR	10.0167	98.5333	0.90
Mergui	MMR	12.4333	98.6000	0.94
Sittwe	MMR	20.1333	92.9167	1.01
Thilawa	MMR	16.6667	96.2500	1.03
Yangon	MMR	16.7667	96.1667	1.05
Coco Is.(MMR)	MMR	14.1833	93.3833	1.06
Saipan Is.	MNP	15.2000	145.7167	1.02
Tinian Is.	MNP	14.9667	145.6167	1.02
Rota Is.	MNP	14.1667	145.1667	1.03
Maputo	MOZ	-25.9833	32.6000	0.18
Ponta Dobela	MOZ	-26.5167	32.9167	0.24
Inhambane	MOZ	-23.8667	35.3833	0.28
Beira	MOZ	-19.8333	34.8333	0.43
Quelimane	MOZ	-17.8833	36.8833	0.49
Vilanculos	MOZ	-22.0167	35.3167	0.50
Nacala	MOZ	-14.5333	40.6667	1.15
Angoche	MOZ	-16.2333	39.9167	0.52
Chinde	MOZ	-18.5833	36.4667	0.54
Pebane	MOZ	-17.3000	38.1333	0.59
Mocimboa da Praia	MOZ	-11.3333	40.4167	0.66
Pemba	MOZ	-12.9500	40.5000	0.73
Ibo	MOZ	-12.3333	40.6167	0.74
Mozambique Is.	MOZ	-15.0500	40.7833	0.75
Cap Blanc	MRT	20.7667	-17.0500	1.06
Pointe des Mouettes	MRT	20.8333	-17.0333	1.06
Point Central	MRT	20.8167	-17.0333	1.06
Nouadhibou	MRT	20.9000	-17.0500	1.06
Port de L'Amitie	MRT	18.0000	-16.0333	0.81
Nouakchott	MRT	18.0333	-16.0333	0.81
Plymouth(MSR)	MSR	16.7000	-62.2167	0.78
Ulcinj	MTG	41.9167	19.2000	1.06
Petrovac	MTG	42.2000	18.9167	1.05
Bellefontaine	MTQ	14.6833	-61.1667	0.54
Fort de France	MTQ	14.6000	-61.0667	0.65
St. Pierre(MTQ)	MTQ	14.7333	-61.1833	0.84
Port Louis	MUS	-20.1500	57.4833	0.15
Rodrigues Is.	MUS	-19.6833	63.4167	0.30
Tawau	MYS	4.2500	117.8833	0.73
Tanjong Batu	MYS	4.2500	117.8667	0.73
Bintulu	MYS	3.1667	113.0333	0.80
Dungun	MYS	4.7833	103.4333	0.77
Lahad Datu	MYS	5.0333	118.3333	0.79
Lumut(Malaysia)	MYS	4.2667	100.6500	1.05
Mukah	MYS	2.9333	112.0333	0.83
Sabahat	MYS	5.0667	119.0333	0.80
Tanjong Berhala	MYS	4.2500	103.4667	0.80

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Suai	MYS	3.6667	113.6167	0.82
Kuantan	MYS	3.9667	103.4333	0.81
Miri	MYS	4.3833	113.9833	0.83
Tanjung Pelepas	MYS	1.3500	103.5500	0.85
Kuala Pahang	MYS	3.5333	103.4500	0.83
Kota Kinabalu	MYS	6.0000	116.0667	0.83
Batu Phat	MYS	1.7833	102.8833	0.86
Johore Bahru	MYS	1.4667	103.8333	0.86
Sipitang	MYS	5.0833	115.5500	0.84
Nenasi	MYS	3.1333	103.4500	0.84
Penang	MYS	5.4167	100.3333	0.88
Lawas	MYS	4.9333	115.3833	0.85
Niah	MYS	3.9000	113.7667	0.88
Kuala Selangor	MYS	3.3500	101.2500	0.91
Sapangar Bay	MYS	6.0833	116.1167	0.86
Tumpat	MYS	6.2167	102.1833	0.87
Pasir Gudang	MYS	1.4333	103.9000	0.90
Malacca	MYS	2.1833	102.2500	0.94
Tanjung Langsat	MYS	1.4667	104.0167	0.91
Sungai Udang	MYS	2.2500	102.1333	0.96
Muar	MYS	2.0000	102.4000	0.95
Port Dickson	MYS	2.5167	101.7833	0.97
Port Klang	MYS	3.0000	101.4000	0.97
Perai	MYS	5.3833	100.3667	0.97
Weston(MYS)	MYS	5.2167	115.6000	0.94
Pulau Langkawi	MYS	6.4333	99.7500	0.97
Teluk Ewa	MYS	6.4333	99.7500	0.97
Kuala Perlis	MYS	6.4000	100.1167	1.03
Labuan	MYS	5.2833	115.2333	1.01
Sematan	MYS	1.8833	109.8167	1.03
Kudat	MYS	6.8667	116.8333	1.03
Tambisan	MYS	5.4833	119.1333	1.05
Baram	MYS	4.6000	113.9667	1.06
Kuala Trengganu	MYS	5.3333	103.1500	1.06
Kemaman	MYS	4.1833	103.5000	1.07
Kuala Rompin	MYS	2.7500	103.6000	1.08
Kerteh Term.	MYS	4.5167	103.5500	1.09
Jambongan	MYS	6.6667	117.5000	1.09
Telok Ramunia	MYS	1.3500	104.2333	1.13
Balingian	MYS	2.9833	112.5667	1.13
Kunak	MYS	4.6833	118.2500	1.11
Sandakan	MYS	5.8333	118.1333	1.11
Tanjong Kidurong	MYS	3.2667	113.0500	1.14
Silam	MYS	4.9500	118.2333	1.12
Bohayan Is.	MYS	4.8000	118.3167	1.12
Muarasabak	MYS	-1.1333	103.8000	1.17
Pulau Pisang	MYS	1.4667	103.2500	1.15
Semporna	MYS	4.4833	118.6167	1.13
Sembilan Is.(MYS)	MYS	4.0500	100.5500	1.28
Pulau Pangkhor	MYS	4.2167	100.5833	1.28
Longoni	MYT	-12.7167	45.1500	0.73

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Dzaoudzi	MYT	-12.7833	45.2500	0.74
Walvis Bay	NAM	-22.9500	14.5000	1.21
Oranjemund	NAM	-28.5667	16.3667	1.18
Poro(NCL)	NCL	-21.3000	165.7167	0.07
Noumea	NCL	-22.2833	166.4333	0.16
Poum	NCL	-20.2333	164.0000	0.31
Bonny	NGA	4.4333	7.1500	1.20
Opobo	NGA	4.5833	7.5333	0.81
Calabar	NGA	4.9667	8.3167	0.95
Forcados Term.	NGA	5.1667	5.1833	0.86
Puerto Benjamin Zeledon	NIC	13.3167	-83.6167	0.53
Puerto Sandino	NIC	12.1833	-86.7833	0.71
San Juan del Sur	NIC	11.2500	-85.8833	0.77
Puerto Cabezas	NIC	14.0333	-83.3833	0.78
Masachapa	NIC	11.7667	-86.5333	0.86
Corinto	NIC	12.4667	-87.1833	0.86
Puerto Cabo Gracias a Dios	NIC	15.0000	-83.1667	0.83
El Bluff	NIC	12.0167	-83.7333	0.84
San Juan del Norte	NIC	10.9500	-83.7167	0.87
Whakatane	NZL	-37.9500	177.0000	1.24
Tauranga	NZL	-37.6500	176.1667	1.20
Mount Maunganui	NZL	-37.6833	176.2333	1.19
Masirah Is.	OMN	20.6833	58.8667	0.31
Duqm	OMN	19.6833	57.7333	0.35
Ras al Hadd	OMN	22.5000	59.8000	0.55
Salalah	OMN	16.9333	54.0000	0.66
Khasab	OMN	26.2167	56.2500	1.02
Mina al Fahal	OMN	23.6500	58.5333	0.91
Port Sultan Qaboos	OMN	23.6333	58.5667	0.91
Muscat	OMN	23.6167	58.6333	0.91
Qalhat Term.	OMN	22.6667	59.4167	1.01
Sur	OMN	22.6500	59.4333	1.01
The Quoins	OMN	26.5000	56.5000	1.05
Sohar	OMN	24.5000	56.6333	1.13
Gadani Beach	PAK	25.1000	66.7167	0.53
Pasni	PAK	25.2500	63.4667	0.71
Karachi	PAK	24.8333	67.0000	0.74
Port Muhammad Bin Qasim	PAK	24.7667	67.3500	0.80
Gwadar	PAK	25.1000	62.4000	0.76
Chiriqui Grande	PAN	8.9667	-82.1000	0.64
Armuelles	PAN	8.2667	-82.8667	0.69
Secas Is.	PAN	7.9833	-82.1000	0.74
Taboguilla Is.	PAN	8.8167	-79.5167	0.77
Aguadulce	PAN	8.2333	-80.5000	0.81
Vacamonte	PAN	8.8833	-79.6833	0.83
Panama City(PAN)	PAN	8.9833	-79.5333	0.87
Manzanillo(PAN)	PAN	9.3667	-79.8667	0.87
Cristobal	PAN	9.3500	-79.9167	0.87
Las Minas Bay	PAN	9.4000	-79.8333	0.87

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Colon(PAN)	PAN	9.3667	-79.9167	0.87
Cativa	PAN	9.3500	-79.8167	0.87
Coco Solo	PAN	9.3667	-79.8833	0.87
Balboa	PAN	8.9500	-79.5667	1.07
Taboga Is.	PAN	8.7833	-79.5500	0.90
Bocas del Toro	PAN	9.3333	-82.2500	0.92
Portobelo	PAN	9.5500	-79.6500	0.92
Charco Azul	PAN	8.2167	-82.8667	1.08
Almirante	PAN	9.2833	-82.3833	1.09
Chancay	PER	-11.6000	-77.2833	1.21
Puerto Bayovar	PER	-5.7833	-81.0500	1.05
La Pampilla	PER	-11.9333	-77.1833	0.85
Ancon	PER	-11.7833	-77.1833	0.85
Atico	PER	-16.2167	-73.7167	0.83
Cerro Azul	PER	-13.0500	-76.5167	0.79
Conchan	PER	-12.2500	-76.9333	0.74
Oquendo	PER	-11.9667	-77.1167	0.74
San Nicolas(PER)	PER	-15.2333	-75.2333	0.74
San Juan(PER)	PER	-15.3500	-75.1833	0.72
Huarmey	PER	-10.0833	-78.1500	0.69
Ilo	PER	-17.6333	-71.3500	0.73
Paramonga	PER	-10.7000	-77.8333	0.67
Supe	PER	-10.8333	-77.7333	0.67
Negritos	PER	-4.6500	-81.3167	0.64
Talara	PER	-4.5667	-81.2833	0.64
Huacho	PER	-11.1333	-77.6167	0.65
Matarani	PER	-16.9833	-72.1167	0.69
Salaverry	PER	-8.2333	-79.0000	0.62
General San Martin	PER	-13.8333	-76.2667	0.55
Chimbote	PER	-9.0833	-78.6333	0.48
Coisco	PER	-9.0167	-78.6167	0.48
Los Organos	PER	-4.1667	-81.1333	0.44
Cabo Blanco	PER	-4.2667	-81.2500	0.43
Chicama	PER	-7.7000	-79.4167	0.41
Mollendo	PER	-17.0167	-72.0333	0.36
Pacasmayo	PER	-7.4000	-79.6000	0.17
Zorritos	PER	-3.6667	-80.6500	0.24
Eten	PER	-6.9333	-79.8667	0.04
Pimentel	PER	-6.8167	-79.9333	0.06
Punta Lobitos	PER	-4.4500	-81.2667	0.09
Paita	PER	-5.0833	-81.1167	0.20
Tallaboa	PER	18.00	-66.75	0.81
Gingog	PHL	8.8333	125.1000	0.42
Medina	PHL	8.9167	125.0333	0.43
Lunao	PHL	8.8500	125.0500	0.43
Kiamba	PHL	6.0333	124.5500	0.55
Milbuk	PHL	6.1500	124.2667	0.56
Brooke's Point	PHL	8.7667	117.8167	0.64
Sabang(PHL)	PHL	13.7167	123.5833	0.62
Maconacon	PHL	17.4167	122.2167	0.61
San Carlos(PHL)	PHL	10.4833	123.4167	0.64



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Jagna	PHL	9.6500	124.3667	0.70
Tandag	PHL	9.0667	126.2000	0.70
Maco	PHL	7.3500	125.8500	0.72
Port Irene	PHL	18.3833	122.1000	0.70
Borongan	PHL	11.6167	125.4667	0.73
General Santos	PHL	6.1000	125.1667	0.74
Polillo	PHL	14.7500	121.9000	0.72
Santa Cruz(Marinduque PHL)	PHL	13.5000	122.0500	0.73
Pangi	PHL	13.3333	121.8333	0.74
Lebak	PHL	6.5500	124.0333	0.78
Bais	PHL	9.5833	123.1167	0.77
Consolacion	PHL	9.5833	123.1167	0.77
Garcia Hernandez	PHL	9.6167	124.2833	0.77
Bugo	PHL	8.5167	124.7500	0.78
Villanueva	PHL	8.5833	124.7500	0.78
Tagoloan	PHL	8.5333	124.7500	0.78
Jasaan	PHL	8.6333	124.7667	0.78
Kolambugan	PHL	8.1167	123.8833	0.80
Ozamis	PHL	8.1500	123.8500	0.80
Lianga	PHL	8.6333	126.1000	0.80
Porol(Luzon)	PHL	16.6167	120.3167	0.80
San Fernando(PHL)	PHL	16.6500	120.3167	0.80
Carlatan	PHL	16.6333	120.3167	0.80
Castanas	PHL	13.8833	121.5500	0.79
Pasacao	PHL	13.4833	123.0333	0.79
Siain	PHL	13.9500	122.0167	0.78
Balogo	PHL	13.5167	122.0500	0.79
Basco	PHL	20.4500	121.9667	0.78
Lugait	PHL	8.3333	124.2500	0.81
Kiwalan	PHL	8.2667	124.2667	0.81
Iligan	PHL	8.2333	124.2333	0.81
Hondagua	PHL	13.9500	122.2333	0.80
Cabadbaran	PHL	9.1167	125.5333	0.80
Balingasag	PHL	8.7167	124.7500	0.81
Hinatuan	PHL	8.3333	126.3000	0.81
Bislig	PHL	8.2167	126.3167	0.81
Batangas	PHL	13.7500	121.0500	0.81
Bauan	PHL	13.7500	121.0500	0.81
Tabangao	PHL	13.7167	121.0500	0.81
Pagadian	PHL	7.8167	123.4333	0.83
Pagbilao	PHL	13.8500	121.7500	0.80
Tacloban	PHL	11.2500	125.0000	0.81
Calapan	PHL	13.3833	121.1667	0.81
Matnog	PHL	12.5833	124.0833	0.82
Catbalogan	PHL	11.7833	124.8833	0.82
Olongapo	PHL	14.8000	120.2667	0.84
Subic Bay	PHL	14.7833	120.2333	0.84
Currimao	PHL	17.9833	120.4833	0.84
Mati	PHL	6.9500	126.2167	0.85
Rio Tuba	PHL	8.5000	117.4167	0.86
Port Calton	PHL	12.1833	120.1000	0.85

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Port Barton	PHL	10.4833	119.2500	0.86
Isabela(PHL)	PHL	6.7000	121.9667	0.85
Hinobaan	PHL	9.5667	122.5000	0.85
Maasin	PHL	10.1333	124.8333	0.85
La Paz(PHL)	PHL	7.3167	125.7333	0.85
Panabo	PHL	7.3000	125.6833	0.85
Davao	PHL	7.0667	125.6167	0.86
Ormoc	PHL	11.0000	124.6000	0.85
Aparri	PHL	18.3500	121.6333	0.84
Santa Cruz(Luzon PHL)	PHL	15.7333	119.8667	0.86
Bulan	PHL	12.6667	123.8667	0.85
Palompon	PHL	11.0667	124.3667	0.86
Rabon	PHL	16.2000	120.4000	0.86
Calbayog	PHL	12.0667	124.6000	0.86
Tagbilaran	PHL	9.6500	123.8500	0.87
Calaca	PHL	13.9167	120.8000	0.87
Claveria	PHL	18.6167	121.0833	0.87
Guimaras Is.	PHL	10.6667	122.5833	0.88
Malangas	PHL	7.6333	123.0333	0.90
Nasugbu	PHL	14.0833	120.6333	0.89
Bogo	PHL	11.0500	124.0000	0.89
Isabel	PHL	10.9167	124.4167	0.91
Legazpi	PHL	13.1500	123.7500	0.92
Poros Is.	PHL	10.6333	124.4167	0.93
Iloilo	PHL	10.7000	122.5667	0.94
Tabaco	PHL	13.3667	123.7333	0.93
Sagay	PHL	10.9500	123.4167	0.94
Nalunga Is.	PHL	10.5000	122.7167	0.95
Hinigaran	PHL	10.2667	122.8333	0.95
Mangarin	PHL	12.3333	121.0667	0.96
Mactan Is.	PHL	10.3167	123.9500	0.95
Cebu	PHL	10.3000	123.9000	0.95
Atimonan	PHL	14.0000	121.9167	0.95
Ubay	PHL	10.0333	124.4667	0.96
Balamban	PHL	10.5000	123.7167	0.98
Romblon	PHL	12.5833	122.2667	0.98
Plaridel	PHL	8.6167	123.7000	0.98
Navotas	PHL	14.6500	120.9500	0.99
Manila	PHL	14.5833	120.9667	0.99
Dapitan	PHL	8.6333	123.3833	0.99
Roxas	PHL	8.5167	123.2500	0.99
Dipolog	PHL	8.5833	123.3333	0.99
Jimenez	PHL	8.3333	123.8500	0.99
Mariveles	PHL	14.4167	120.5000	1.00
Lamiao	PHL	14.5167	120.6000	1.00
Bataan	PHL	14.5333	120.6167	1.00
Limay(PHL)	PHL	14.5667	120.6000	1.00
Toledo(PHL)	PHL	10.3667	123.6333	1.00
Sangi	PHL	10.4000	123.6333	1.00
Naga	PHL	10.2167	123.7500	1.01
Jolo	PHL	6.0500	121.0000	1.01

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Camiguin Is.	PHL	9.2500	124.7167	1.01
Virac	PHL	13.5833	124.2333	1.02
Coron	PHL	11.9333	120.2500	1.02
Bacong	PHL	9.2333	123.2833	1.02
Dumaguete	PHL	9.3000	123.3000	1.02
Lubang	PHL	13.8500	120.1333	1.03
Puerto Princesa	PHL	9.7500	118.7333	1.04
Alcoy	PHL	9.7167	123.5000	1.03
Cuyo	PHL	10.8333	121.0333	1.03
Tubigon	PHL	9.9333	123.9500	1.03
Jose Panganiban	PHL	14.3167	122.6667	1.03
Siasi	PHL	5.5500	120.8167	1.04
Bongao	PHL	5.0167	119.7667	1.04
Tanauan	PHL	11.1167	125.0167	1.04
Tolosa	PHL	11.0667	125.0333	1.04
Badoc	PHL	17.9167	120.4667	1.05
Salomague	PHL	17.8000	120.4000	1.05
Lipata	PHL	9.8000	125.4333	1.05
Tandoc	PHL	14.0500	123.3000	1.05
Zamboanga	PHL	6.9000	122.0667	1.06
Mambaguid	PHL	10.8500	122.9500	1.06
Nasipit	PHL	8.9833	125.3333	1.06
San Jose de Buenavista	PHL	10.7500	121.9167	1.07
Masinloc	PHL	15.5333	119.9500	1.08
Bani	PHL	15.5500	119.9333	1.08
Port Matalvi	PHL	15.4833	119.9167	1.08
La Union(PHL)	PHL	6.7000	126.0833	1.07
Dinagat	PHL	9.9667	125.6000	1.07
Nonoc Is.	PHL	9.8167	125.6167	1.07
Cagdianao	PHL	9.9000	125.6667	1.07
Surigao	PHL	9.7833	125.5000	1.07
Taganito	PHL	9.5500	125.7500	1.07
Bulata	PHL	9.8500	122.4000	1.08
Cartagena(PHL)	PHL	9.8000	122.3833	1.08
Caraga	PHL	7.3500	126.5667	1.08
Dapa	PHL	9.7500	126.0500	1.08
Bacolod	PHL	10.6667	122.9500	1.08
Pulupandan	PHL	10.5167	122.8000	1.08
Lingayen	PHL	16.0167	120.2167	1.10
Sual	PHL	16.0667	120.1000	1.10
Sitangkai	PHL	4.6667	119.3833	1.10
Polloc	PHL	7.3500	124.2167	1.22
Koror	PLW	7.3333	134.4833	1.11
Angaur	PLW	6.9000	134.1500	1.12
Kosrae Is.	PLW	5.3333	163.0000	1.16
Porto Santo	PMD	33.0500	-16.3333	0.86
Ponta Delgada(PMD)	PMD	32.8167	-17.0000	0.83
Madeira	PMD	32.6667	-16.9167	0.82
Funchal	PMD	32.6333	-16.9000	0.82
Pomio	PNG	-5.5167	151.5000	0.55
Gamadodo	PNG	-10.4000	150.4000	0.62

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Lae	PNG	-6.7333	146.9833	0.62
Alotau	PNG	-10.3167	150.4500	0.63
Kimbe	PNG	-5.5333	150.1500	0.70
Silavuti	PNG	-5.5333	149.6500	0.77
Wewak	PNG	-3.5833	143.6667	0.78
Wasum	PNG	-6.0500	149.3333	0.81
Marshall Lagoon	PNG	-10.1000	148.0833	0.81
Kupiano	PNG	-10.1000	148.2000	0.82
Port Moresby	PNG	-9.4333	147.1000	0.83
Samarai	PNG	-10.6167	150.6667	0.84
Daru	PNG	-9.0667	143.2000	0.92
Misima Is.	PNG	-10.6333	152.7500	0.94
Woodlark Is.	PNG	-9.3333	152.8000	1.03
Oro Bay	PNG	-8.8333	148.5000	1.09
Madang	PNG	-5.2500	145.8333	1.12
Alexishafen	PNG	-5.0833	145.8333	1.12
Sarang	PNG	-4.7500	145.6667	1.13
Lasibu	PNG	-5.4833	150.8167	1.15
Salamaua	PNG	-7.0000	147.0833	1.16
Buluma	PNG	-5.5167	150.3167	1.18
Vanimo	PNG	-2.6667	141.3333	1.20
Rabaul	PNG	-4.2000	152.1833	1.19
Kieta	PNG	-6.2167	155.6333	1.23
Anewa Bay	PNG	-6.2000	155.5500	1.23
Kavieng	PNG	-2.5667	150.8000	1.25
Emirau Is.	PNG	-1.5833	149.9667	1.25
Lorengau	PNG	-2.0000	147.2500	1.25
Tatau Is.	PNG	-2.8333	151.8500	1.25
Lombrum	PNG	-2.0333	147.4000	1.25
Penuelas	PRI	18.0019	-66.7508	0.28
Guayanilla	PRI	17.9833	-66.7500	0.34
Arecibo	PRI	18.4667	-66.7167	0.44
Mayaguez	PRI	18.2000	-67.1500	0.47
Aguadilla	PRI	18.3667	-67.1667	0.48
San Juan(PRI)	PRI	18.4667	-66.1167	0.57
Yabucoa	PRI	18.0667	-65.8000	0.61
Ceiba	PRI	18.2667	-65.6667	0.80
Fajardo	PRI	18.3333	-65.6333	0.80
Mona Is.	PRI	18.0833	-67.9500	0.80
Aguirre	PRI	17.9500	-66.2167	0.81
Guayama	PRI	17.9500	-66.1333	0.81
Las Mareas	PRI	17.9500	-66.1333	0.81
Jobos	PRI	17.9667	-66.2833	0.81
Ponce	PRI	17.9667	-66.6500	0.81
Guanica	PRI	17.9667	-66.9167	0.82
Figueira da Foz	PRT	40.1500	-8.8667	1.22
Lagos(PRT)	PRT	37.0833	-8.6667	1.10
Praia da Graciosa	PRT	39.0500	-27.9667	1.09
Praia da Vitoria	PRT	38.7333	-27.0500	1.09
Graciosa Is.	PRT	39.0500	-28.0500	1.09
Terceira Is.	PRT	38.7167	-27.2167	1.08

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Angra do Heroismo	PRT	38.6500	-27.2167	1.08
Velas	PRT	38.6667	-28.2167	1.04
San Jorge Is.	PRT	38.6667	-28.0500	1.04
Fayal	PRT	38.5833	-28.7000	1.03
Horta	PRT	38.5333	-28.6333	1.03
Corvo Is.	PRT	39.6667	-31.1167	1.02
Flores Is.	PRT	39.5000	-31.2167	1.02
Albufeira	PRT	37.0833	-8.2500	1.05
Faro	PRT	37.0167	-7.9167	1.08
Olhao	PRT	37.0167	-7.8333	1.08
Pico Is.	PRT	38.4667	-28.3000	1.01
St. Michael's	PRT	37.7333	-25.6667	0.99
Ponta Delgada(AZO)	PRT	37.7333	-25.6667	0.99
Setubal	PRT	38.5000	-8.9167	1.01
Sesimbra	PRT	38.4333	9.1000	1.02
Vila do Porto	PRT	36.9333	-25.1500	0.94
Canical	PRT	32.7333	-16.7333	0.84
Mururoa	PYF	-21.8333	-138.9167	0.46
Hao	PYF	-18.0667	-141.0000	0.72
Papeete	PYF	-17.5333	-149.5833	0.82
Moorea	PYF	-17.5000	-149.8333	0.84
Fare	PYF	-16.7000	-151.0333	0.88
Uturoa	PYF	-16.7333	-151.4333	0.88
Vaitape	PYF	-16.5000	-151.7500	0.89
Makatea	PYF	-15.8500	-148.2500	0.91
Mesaieed	QAT	24.9167	51.5833	1.08
Wakrah	QAT	25.1667	51.6333	1.16
Doha(QAT)	QAT	25.2833	51.5333	1.09
Ras Laffan	QAT	25.9333	51.5333	1.10
Halul Island Term.	QAT	25.6667	52.4167	1.10
Pointe des Galets	REU	-20.9167	55.2833	0.38
Ras al Khafji	SAU	28.4167	48.5833	0.76
Haql	SAU	29.3000	34.9500	0.92
Ras as Saffaniya	SAU	28.0000	48.8000	0.77
Quarrayah	SAU	26.0333	50.1333	0.94
Dhuba	SAU	27.5667	35.5500	0.86
Al Wajh	SAU	26.2167	36.4500	0.57
Al Khobar	SAU	26.2833	50.2167	0.94
Ras Tanura	SAU	26.6333	50.1667	0.94
Dammam	SAU	26.5000	50.2000	0.94
Sharmah	SAU	27.9333	35.2667	0.92
King Fahd Port(Jubail)	SAU	27.0833	49.6833	0.90
Jubail	SAU	27.0167	49.6500	0.90
Ras al Mishab	SAU	28.1000	48.6167	1.26
Ras Baridi	SAU	24.2667	37.5167	0.90
Yanbu	SAU	24.1000	38.0500	0.96
King Fahd Port(Yanbu)	SAU	23.9500	38.2167	1.03
Jeddah	SAU	21.4667	39.1667	1.06
Qadimah	SAU	22.3500	39.0833	1.15
Rabigh	SAU	22.7500	38.9833	1.19
Halaib	SDN	22.2000	36.5833	0.85

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Oseif	SDN	21.6667	36.8333	0.87
Suakin	SDN	19.1167	37.3333	1.10
Port Sudan	SDN	19.6167	37.2333	1.11
Carabane	SEN	12.5500	-16.7000	0.38
Dakar	SEN	14.6833	-17.4167	0.49
Rufisque	SEN	14.7167	-17.2833	0.54
Djifere	SEN	13.9333	-16.7667	0.70
Jurong Port	SGP	1.3000	103.7167	0.83
Singapore	SGP	1.2667	103.8333	0.83
Pulau Bukom	SGP	1.2333	103.7667	0.83
Changi	SGP	1.3833	103.9833	0.90
Jamestown(SHN)	SHN	-15.9167	-5.7167	0.29
Ascension	SHN	-7.9333	-14.4167	0.47
Georgetown(SHN)	SHN	-7.9333	-14.4167	0.47
Ringi Cove	SLB	-8.1167	157.1167	0.73
Noro	SLB	-8.2167	157.2000	0.84
Viru Hbr.	SLB	-8.5000	157.7167	0.84
Tikopia	SLB	-12.1667	168.8333	1.08
Lever Hbr.	SLB	-8.0333	157.5833	1.19
Aola Bay	SLB	-9.5167	160.5000	1.20
Yandina	SLB	-9.0667	159.2167	1.23
Tulagi	SLB	-9.0833	160.1667	1.23
Faisi Is.	SLB	-7.0833	155.8833	1.26
Lofung	SLB	-7.0667	155.8667	1.26
Shortland Is.	SLB	-7.0833	155.7500	1.26
Honiara	SLB	-9.4167	159.9667	1.26
Gizo	SLB	-8.0833	156.8667	1.27
Freetown	SLE	8.5000	-13.2167	1.22
La Libertad(SLV)	SLV	13.4833	-89.3167	0.82
Acajutla	SLV	13.6000	-89.8333	0.91
Merca	SOM	1.7167	44.7667	0.68
Kismayu	SOM	-0.3833	42.5500	0.71
Jasiira	SOM	1.9500	45.1667	0.73
Mogadiscio	SOM	2.0167	45.3500	0.82
El Maan	SOM	2.2833	45.5667	0.84
Bosaso	SOM	11.2833	49.1833	1.03
Alula	SOM	11.9667	50.7667	1.06
Berbera	SOM	10.4500	45.0167	1.14
Sao Tome	STP	0.3500	6.7500	0.73
Principe Is.	STP	1.6500	7.4500	0.83
Santo Antonio	STP	1.6500	7.4500	0.83
Nieuw Nickerie	SUR	5.9500	-57.0000	0.86
Port Victoria	SYC	-4.6167	55.4500	0.92
Arwad Is.	SYR	34.8500	35.8500	0.97
Tartous	SYR	34.9000	35.8667	0.97
Lattakia	SYR	35.5167	35.7667	0.94
Borj Islam	SYR	35.6667	35.8000	0.94
Jeble	SYR	35.3500	35.9167	0.60
Banias	SYR	35.2333	35.9333	0.60
Salt Cay(TCA)	TCA	21.3500	-71.1833	0.72
Grand Turk	TCA	21.4667	-71.1500	0.72

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Providenciales	TCA	21.7333	-72.2833	0.72
Lome	TGO	6.1333	1.2833	0.79
Kpeme	TGO	6.2000	1.5167	0.82
Thap Sakae	THA	11.5000	99.5833	0.84
Chumphon	THA	10.5167	99.2167	0.87
Ranong	THA	9.9500	98.6167	0.90
Narathiwat	THA	6.4667	101.8500	0.92
Tha Sala	THA	8.6667	99.9667	0.93
Thatong	THA	9.1833	99.4167	0.92
Chanthaburi	THA	12.4667	102.0667	0.94
Pattani	THA	6.9500	101.3000	0.93
Satun	THA	6.6667	100.0167	1.02
Siam Seaport	THA	13.1333	100.8833	1.09
Sriracha	THA	13.1167	100.8833	1.09
Laem Chabang	THA	13.0833	100.8833	1.09
Map Ta Phut	THA	12.6500	101.1500	1.03
Rayong	THA	12.6333	101.2833	1.03
Ko Sichang	THA	13.1500	100.8000	1.10
Chon Buri	THA	13.4000	100.9833	1.12
Bang Pakong	THA	13.5167	100.9833	1.14
Samut Sakhon	THA	13.5333	100.2667	1.16
Samut Prakan	THA	13.6000	100.6000	1.17
Bangkok	THA	13.7000	100.5667	1.17
Prachuap	THA	11.1833	99.6000	1.11
Pattaya	THA	12.9500	100.8833	1.15
Sattahip	THA	12.6500	100.8500	1.15
Prachuap Khiri Khan	THA	11.7833	99.8167	1.14
Khanom	THA	9.2667	99.8833	1.16
Songkhla	THA	7.2333	100.5833	1.17
Phuket	THA	7.8333	98.4167	1.18
Dili	TLS	-8.5333	125.5667	0.43
Nukualofa	TON	-21.1333	-175.1833	0.40
Claxton Bay	TTO	10.3500	-61.4667	0.80
Port of Spain	TTO	10.6500	-61.5167	0.82
Point Lisas	TTO	10.4000	-61.5000	0.82
Pointe a Pierre	TTO	10.3167	-61.4667	0.84
San Fernando(TTO)	TTO	10.2833	-61.4667	0.84
Tembladora	TTO	10.6833	-61.6000	0.88
Cronstadt Is.	TTO	10.6500	-61.6333	0.88
Chaguaramas	TTO	10.6667	-61.6500	0.88
Brighton(TTO)	TTO	10.2500	-61.6333	0.93
Crown Point	TTO	11.1500	-60.8500	0.82
Pigeon Point	TTO	11.1667	-60.8333	0.82
Sandy Point(TTO)	TTO	11.1333	-60.8667	0.82
Point Fortin	TTO	10.1833	-61.6833	0.95
Scarborough(TTO)	TTO	11.1833	-60.7333	0.83
Charlottetown	TTO	11.3000	-60.5500	0.83
Bizerta	TUN	37.2667	9.8833	0.99
Galita Is.	TUN	37.5333	8.9333	0.98
Tabarka	TUN	36.9667	8.7667	1.10
Cap Bon	TUN	37.0833	11.0500	0.93

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kelibia	TUN	36.8333	11.0833	0.91
Rades	TUN	36.8000	10.2333	0.81
La Goulette	TUN	36.8167	10.3000	0.81
Sousse	TUN	35.8333	10.6500	0.83
Ras Dimasse	TUN	35.5833	11.0167	0.82
Tunis	TUN	36.8000	10.2000	1.24
Zarzis	TUN	33.5000	11.1167	0.89
Ajim	TUN	33.7167	10.7333	0.92
Sfax	TUN	34.7333	10.7667	0.82
Gabes	TUN	33.9500	10.0667	0.82
La Skhira	TUN	34.2333	10.0667	0.89
Gokceada	TUR	40.2000	25.9000	1.26
Bozcaada	TUR	39.8333	26.0667	1.19
Ayvalik	TUR	39.3167	26.7167	1.16
Nemrut Bay	TUR	38.7500	26.9167	1.02
Cesme	TUR	38.3167	26.3000	1.01
Alanya	TUR	36.5333	32.0000	1.25
Anamur	TUR	36.0167	32.8167	1.29
Bodrum	TUR	37.0333	27.4167	0.81
Marmaris	TUR	36.8500	28.2667	1.23
Gulluk	TUR	37.2500	27.6333	1.17
Mersin	TUR	36.8000	34.6333	1.14
Yumurtalik	TUR	36.7667	35.7500	1.10
Sugozu	TUR	36.8667	35.9500	1.14
Ceyhan	TUR	36.8833	35.9333	1.14
Toros Gubre	TUR	36.9167	35.9833	1.14
Tasucu	TUR	36.2333	33.9833	0.63
Iskenderun	TUR	36.6000	36.1667	0.66
Funafuti	TUV	-8.5167	179.2000	1.21
Jinmen Is.	TWN	24.4500	118.3833	0.68
Taipei	TWN	25.1667	121.3500	0.60
Taichung	TWN	24.2833	120.5000	0.54
Hualien	TWN	24.0000	121.6333	0.41
Tainan	TWN	23.1000	120.0833	0.41
Makung	TWN	23.5500	119.5500	0.35
An Ping	TWN	22.9833	120.1333	0.39
Kaohsiung	TWN	22.6167	120.2500	0.40
Hsinyuan	TWN	22.5333	120.4333	0.40
Shenao	TWN	25.1167	121.8167	0.45
Keelung	TWN	25.1500	121.7333	0.45
Tamsui	TWN	25.1667	121.4167	0.60
Mai-Liao	TWN	23.7833	120.1667	0.56
Suao	TWN	24.6000	121.8667	0.57
Hoping	TWN	24.3000	121.7500	0.60
Dar es Salaam	TZA	-6.8167	39.3167	0.65
Kipumbwe	TZA	-5.6167	38.8833	0.71
Tanga	TZA	-5.0667	39.1000	0.74
Kilwa Kivinje	TZA	-8.7500	39.4167	0.74
Pangani	TZA	-5.4500	39.0000	0.75
Songo Songo Is.	TZA	-8.5167	39.5000	0.75
Mafia Is.	TZA	-7.9667	39.7500	0.75



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kilwa Masoko	TZA	-8.9333	39.5167	0.75
Zanzibar	TZA	-6.1667	39.1833	0.76
Kimbiji	TZA	-7.0000	39.5000	0.76
Mtwara	TZA	-10.2500	40.2000	0.77
Lindi	TZA	-10.0000	39.7333	0.81
Midway Islands	UMI	28.2167	-177.3500	0.15
Johnston Atoll	UMI	16.7667	-169.5000	0.64
Wake Is.	UMI	19.3000	166.6333	0.77
Palmyra Atoll	UMI	5.8667	-162.4167	0.94
Punta del Este	URY	-34.9667	-54.9500	1.18
Maldonado	URY	-34.9500	-54.9500	1.18
Piriapolis	URY	-34.8667	-55.2667	1.19
Montevideo	URY	-34.9000	-56.2667	1.27
Colonia	URY	-34.4667	-57.8500	1.25
Nueva Palmira	URY	-33.8833	-58.4167	1.14
San Clemente	USA	33.4333	-117.6000	1.07
Marina del Rey	USA	33.9667	-118.4333	1.07
El Segundo	USA	33.9000	-118.4500	0.92
Long Beach	USA	33.7500	-118.2167	0.75
Wilmington(CA USA)	USA	33.7667	-118.2667	0.75
Pass Christian	USA	30.3000	-89.2333	1.15
Moss Point	USA	30.4167	-88.5167	1.14
Pascagoula	USA	30.3500	-88.5667	1.14
Escatawpa	USA	30.4333	-88.5333	1.14
Gulfport	USA	30.3500	-89.0833	1.19
Pearlington	USA	30.2333	-89.6000	1.16
Ocean Springs	USA	30.3833	-88.8167	1.16
Mobile	USA	30.6833	-88.0500	1.13
Biloxi	USA	30.4000	-88.9000	1.17
Theodore	USA	30.5333	-88.1833	1.12
Madisonville	USA	30.4167	-90.1500	1.14
Slidell	USA	30.2833	-89.8167	1.13
Lake Charles	USA	30.2167	-93.2500	1.11
Brunswick	USA	31.1333	-81.4833	0.90
Sulphur	USA	30.2167	-93.4000	1.11
Beaufort	USA	32.4333	-80.6667	1.00
Port Royal(USA)	USA	32.3833	-80.7000	1.00
Loreauville	USA	30.1333	-91.6333	1.08
Jeanerette	USA	29.9000	-91.6667	1.06
Iberia(USA)	USA	30.0000	-91.8500	1.05
Pierre Part	USA	29.9500	-91.1833	1.06
Erath	USA	29.9500	-92.0167	1.07
Morgan City	USA	29.7000	-91.2167	1.04
Houma	USA	29.5833	-90.7167	0.97
Amelia	USA	29.6667	-91.1000	1.00
Patterson	USA	29.6667	-91.3333	1.00
Orange	USA	30.1000	-93.7333	1.09
Magpetco	USA	30.0333	-93.9833	1.09
Lockport	USA	29.6667	-90.5667	0.98
Bourg	USA	29.5500	-90.6000	0.98
Beaumont	USA	30.0833	-94.1000	1.09

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Southport(USA)	USA	33.9167	-78.0000	0.73
Dulac	USA	29.3833	-90.7000	0.95
Port Arthur	USA	29.8667	-93.9167	1.06
Port Neches	USA	29.9833	-93.9333	1.06
Smith's Bluff	USA	30.0000	-93.9833	1.06
Larose	USA	29.5500	-90.3833	0.99
Cut Off	USA	29.5167	-90.3333	0.99
Chauvin	USA	29.4333	-90.5833	0.95
Galliano	USA	29.4333	-90.3000	0.96
Lafitte	USA	29.6500	-90.1000	0.98
Bayport	USA	29.6167	-95.0167	1.08
Kemah	USA	29.5333	-95.0167	1.08
San Leon	USA	29.4833	-94.9167	1.06
St. Augustine	USA	29.8833	-81.3167	0.91
Galveston	USA	29.3000	-94.8000	0.98
Texas City	USA	29.3667	-94.8833	0.98
Kings Bay(USA)	USA	30.8167	-81.5167	0.68
Fernandina	USA	30.6833	-81.4667	0.66
Morehead City	USA	34.7167	-76.7000	0.52
Sabine	USA	29.7167	-93.8667	0.96
Michoud	USA	30.0000	-89.9167	1.11
Bienville	USA	30.2167	-89.5833	1.11
South Louisiana	USA	30.1000	-90.4833	1.18
Freeport(Texas)	USA	28.9333	-95.3000	0.74
Cameron	USA	29.7833	-93.3167	1.00
Rockport(TX)	USA	28.0167	-97.0333	0.79
Lahaina	USA	20.8667	-156.6833	0.21
Ingleside	USA	27.8333	-97.2333	0.62
Aransas Pass	USA	27.8833	-97.1333	0.62
Harbor Is.	USA	27.8667	-97.0667	0.62
Port Aransas	USA	27.8333	-97.0667	0.62
Bayou La Batre	USA	30.4000	-88.2500	0.97
Coden	USA	30.3667	-88.2333	0.97
Fowl River	USA	30.4500	-88.1667	0.97
Port Isabel(USA)	USA	26.0667	-97.2000	0.75
Pensacola	USA	30.4167	-87.2167	0.75
Golden Meadow	USA	29.3667	-90.2667	0.88
Apalachicola	USA	29.7167	-84.9833	0.62
Bradenton	USA	27.4833	-82.5667	1.15
Port Manatee	USA	27.5000	-82.5500	1.17
Daytona Beach	USA	29.1833	-81.0167	0.43
Kailua Kona	USA	19.6333	-155.9833	0.55
Kawaihae	USA	20.0333	-155.8333	0.55
Boca Grande(USA)	USA	26.7167	-82.2500	0.39
Port Fourchon	USA	29.0833	-90.2167	0.80
South Pass	USA	29.0000	-89.1667	0.69
Port Eads	USA	29.0167	-89.1667	0.69
West Palm Beach	USA	26.7167	-80.0500	0.77
Port Allen(HI USA)	USA	21.9000	-159.6000	0.25
Clearwater	USA	27.9667	-82.7833	0.66
Largo	USA	27.9167	-82.7833	0.66

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Lake Worth	USA	26.6167	-80.0500	0.77
Honolulu	USA	21.3000	-157.8667	0.32
St. Petersburg(USA)	USA	27.7833	-82.6333	0.65
Kilauea	USA	22.2333	-159.4000	0.31
Kaunakakai	USA	21.0833	-157.0333	0.34
Kahului	USA	20.9000	-156.4667	0.32
Barbers Point	USA	21.2667	-158.0833	0.35
Nawiliwili	USA	21.9500	-159.3500	0.37
Hilo	USA	19.7333	-155.0667	0.42
Port Canaveral	USA	28.4167	-80.5833	0.47
Cape Canaveral	USA	28.4667	-80.5500	0.47
Fort Pierce	USA	27.4500	-80.3167	0.62
Key West	USA	24.5500	-81.8000	0.67
Palm Beach	USA	26.7667	-80.0500	0.83
Jupiter(USA)	USA	26.9167	-80.1000	0.68
Fort Lauderdale	USA	26.1000	-80.1333	0.74
Port Laudania	USA	26.0500	-80.1167	0.74
Dania	USA	26.0500	-80.1500	0.74
Port Everglades	USA	26.1000	-80.1167	0.74
Miami	USA	25.7833	-80.1833	0.77
Mustique	VCT	12.8667	-61.1833	0.84
Bequia	VCT	13.0000	-61.2500	0.84
Arnos Vale	VCT	13.1167	-61.2000	0.84
Kingstown	VCT	13.1500	-61.2333	0.84
La Guaira	VEN	10.6000	-66.9333	0.40
Manare	VEN	10.4167	-64.3500	0.50
Pertigalete	VEN	10.2500	-64.5500	0.50
Guaraguao	VEN	10.2333	-64.6333	0.50
Pamatacual	VEN	10.2333	-64.5667	0.50
Guanta	VEN	10.2500	-64.6000	0.50
Pamatacualito	VEN	10.2333	-64.5833	0.50
Puerto Jose	VEN	10.1000	-64.8500	0.50
Puerto Miranda	VEN	10.7667	-71.6000	0.53
Punta Gorda(VEN)	VEN	10.7667	-71.5667	0.53
El Tablazo	VEN	10.7500	-71.5333	0.53
El Guamache	VEN	10.8667	-64.0667	0.52
Piritu	VEN	10.0833	-65.0667	0.53
Porlamar	VEN	10.9500	-63.8500	0.55
Las Piedras	VEN	11.7167	-70.2167	0.57
Guarano Bay	VEN	11.6667	-70.2167	0.57
Punto Fijo	VEN	11.6833	-70.2667	0.57
Punta Cardon	VEN	11.6000	-70.2500	0.57
Punta Palmas	VEN	10.4500	-71.6333	0.58
Pampatar	VEN	11.0000	-63.7833	0.59
Puerto Carenero	VEN	10.5333	-66.1167	0.60
Carupano	VEN	10.6833	-63.2500	0.63
Catia la Mar	VEN	10.6000	-67.0333	0.62
Puerto la Cruz	VEN	10.2167	-64.6333	0.67
Guiria	VEN	10.5667	-62.3000	0.72
Cumarebo	VEN	11.5000	-69.3500	0.65
Puerto de Hierro	VEN	10.6333	-62.1000	0.74

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Turiamo	VEN	10.4833	-67.8500	0.67
Borburata	VEN	10.4833	-67.9167	0.67
Puerto Cabello	VEN	10.4833	-68.0000	0.67
Tucacas	VEN	10.8000	-68.3167	0.69
Punta Barima	VEN	8.6000	-60.4167	0.80
Moron	VEN	10.5167	-68.1667	0.70
El Palito	VEN	10.4833	-68.1167	0.70
Chichiriviche	VEN	10.9167	-68.2667	0.71
Cumana	VEN	10.4667	-64.1833	0.74
La Ceiba(VEN)	VEN	9.4667	-71.0667	0.81
Araya	VEN	10.5667	-64.2500	1.04
Curiapo	VEN	8.5500	-61.0833	0.98
Coloncha	VEN	9.2000	-71.7500	0.92
La Vela de Coro	VEN	11.4667	-69.5667	0.94
Las Morochas	VEN	10.2167	-71.3333	0.98
Tia Juana	VEN	10.2500	-71.3667	0.98
Cabimas	VEN	10.3667	-71.4833	0.99
La Salina	VEN	10.3667	-71.4667	0.99
Punta Icotea	VEN	10.4000	-71.4833	0.99
Lagunillas	VEN	10.1167	-71.2667	1.01
Bachaquero	VEN	9.9500	-71.1333	1.03
San Lorenzo(VEN)	VEN	9.7833	-71.0667	1.05
Punta Camacho	VEN	10.5500	-71.5333	1.07
Bajo Grande	VEN	10.5167	-71.6000	1.07
Maracaibo	VEN	10.6500	-71.6000	1.07
Punta Piedras(VEN)	VEN	10.5667	-71.6000	1.07
San Francisco(VEN)	VEN	10.6000	-71.6500	1.07
La Estacada	VEN	10.7167	-71.5333	1.08
Los Taques	VEN	11.8333	-70.2667	1.11
Amuay Bay	VEN	11.7667	-70.2500	1.11
Jost van Dyke	VGB	18.4833	-64.7833	0.76
Tortola	VGB	18.4167	-64.6167	0.76
St. John(VIR)	VIR	18.3500	-64.6667	0.76
St. Thomas	VIR	18.3833	-64.9333	0.77
Christiansted	VIR	17.7469	-64.6978	0.78
Hovensa	VIR	17.7031	-64.7503	0.79
Port Alucroix	VIR	17.7067	-64.7733	0.79
Limetree Bay	VIR	17.6983	-64.7561	0.79
Frederiksted	VIR	17.7139	-64.8831	0.79
Hongay	VNM	20.9500	107.0500	0.88
Cai Lan	VNM	20.9667	107.0333	0.88
Cam Pha	VNM	21.0167	107.3667	0.63
Thanh Hoa	VNM	19.8167	105.8000	0.65
Nghi Son	VNM	19.3167	105.8000	0.63
Vung Ang	VNM	18.9167	106.4000	0.61
Dong Nai	VNM	18.0833	106.3167	0.62
Ba Ngoi	VNM	11.8667	109.1167	0.88
Chan May	VNM	16.3333	108.0000	0.61
Da Nang	VNM	16.1000	108.3000	0.62
Ca Na	VNM	11.3333	108.9000	0.63
Qui Nhon	VNM	13.7667	109.2333	0.64

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Vung Ro	VNM	12.8500	109.4000	0.66
Hon Khoi	VNM	12.5667	109.2333	0.68
Dam Mon	VNM	12.6667	109.3833	0.68
Van Phong Bay	VNM	12.5167	109.3833	0.68
Godau	VNM	10.3333	107.0667	0.85
Vung Tau	VNM	10.3500	107.0667	0.86
Dong Thap	VNM	10.3500	107.0500	0.86
Nam Can	VNM	8.7500	104.9833	0.93
Port Vila	VUT	-17.7500	168.3000	0.46
Port Aneityum	VUT	-20.2500	169.7500	0.48
Santo	VUT	-15.5167	167.1667	0.53
Forari	VUT	-17.6833	168.5500	0.78
Matautu	WLF	-13.2833	-176.1333	1.08
Apia	WSM	-13.8167	-171.7667	1.05
Salelologa	WSM	-13.7333	-172.2000	1.06
Asau	WSM	-13.5000	-172.6333	1.07
Nishtun	YEM	15.8167	52.2333	0.57
Socotra Is.	YEM	15.8333	54.0000	0.71
Mukalla	YEM	14.5333	49.1333	0.97
Aden	YEM	12.8000	44.9667	1.15
Hodeidah	YEM	14.7833	42.9500	1.27
Ras al Katheeb	YEM	14.9167	42.8833	1.27
Mossel Bay	ZAF	-34.1833	22.1667	1.00
Port Elizabeth	ZAF	-33.9667	25.6333	0.84
Bird Is.	ZAF	-33.8167	26.2833	0.80
Ngqura	ZAF	-33.7833	25.6833	0.77
East London	ZAF	-33.0333	27.9167	0.43
Durban	ZAF	-29.8667	31.0333	0.00
Richards Bay	ZAF	-28.8000	32.1000	0.05
Gaza		31.5000	34.4500	0.57

*Appendix H. List of global ports that have highest environmental similarity to Havre-Saint-Pierre. NIS originating from these ports have the highest potential for survival if introduced at Havre-Saint-Pierre.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tombwa	AGO	-15.7667	11.9167	0.46
Baia dos Tigres	AGO	-16.5167	11.7667	0.56
Namibe	AGO	-15.1647	12.1578	0.64
Porto Saco	AGO	-15.1333	12.1333	0.64
Cuio	AGO	-12.9833	12.9833	0.99
Lobito	AGO	-12.3536	13.5436	0.99
Benguela	AGO	-12.5833	13.4000	1.03
Sumbe	AGO	-11.2000	13.8333	1.10
Malembo	AGO	-5.3167	12.1667	1.10
Cabinda	AGO	-5.5514	12.1928	1.11
Porto Amboim	AGO	-10.7281	13.7567	1.20
Durrës	ALB	41.3131	19.4511	0.33
Vlore	ALB	40.4556	19.4850	0.62
Shengjin	ALB	41.8150	19.5872	0.72
Sarandë	ALB	39.8719	20.0003	0.77
San Antonio Este	ARG	-40.8169	-64.7519	0.59

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Puerto Rosales	ARG	-38.9167	-62.0667	0.63
Puerto Belgrano	ARG	-38.9000	-62.1000	0.63
Ibicuy	ARG	-33.7428	-59.1681	0.68
Punta Colorada	ARG	-41.7000	-65.0333	0.76
Puerto Galvan	ARG	-38.7833	-62.3000	0.91
Puerto Madryn	ARG	-42.7386	-65.0472	0.92
Ensenada(ARG)	ARG	-34.8667	-57.9000	0.94
La Plata	ARG	-34.8725	-57.9069	0.94
Buenos Aires	ARG	-34.5903	-58.3775	1.03
Necochea	ARG	-38.5753	-58.7214	1.09
Escobar	ARG	-34.3500	-58.7667	1.10
San Fernando(ARG)	ARG	-34.4500	-58.5333	1.12
Tigre	ARG	-34.4333	-58.5500	1.12
Mar del Plata	ARG	-38.0331	-57.5447	1.12
Atucha	ARG	-33.9569	-59.2511	1.19
Lima(ARG)	ARG	-33.9767	-59.1872	1.19
Campana	ARG	-34.1567	-58.9664	1.20
Zarate	ARG	-34.0911	-59.0206	1.20
Caleta Cordova	ARG	-45.7167	-67.3500	1.21
Bahia Blanca	ARG	-38.7372	-62.2897	1.29
Camarones	ARG	-44.4500	-65.7000	1.29
Port Bonython	AUS	-32.9889	137.7672	0.12
Kwinana	AUS	-32.2167	115.7500	0.20
Port Pirie	AUS	-33.1686	138.0108	0.20
Wallaroo	AUS	-33.9294	137.6247	0.21
Fremantle	AUS	-32.0592	115.7508	0.21
Ardrossan(AUS)	AUS	-34.4344	137.9119	0.33
Geraldton	AUS	-28.7786	114.5897	0.36
Thevenard	AUS	-32.1469	133.6467	0.43
Busselton	AUS	-33.6333	115.3333	0.44
Whyalla	AUS	-33.0375	137.5869	0.49
Port Kembla	AUS	-34.4650	150.8892	0.52
Esperance	AUS	-33.8736	121.8919	0.56
Port Lincoln	AUS	-34.7244	135.8692	0.58
Kurnell	AUS	-34.0000	151.2333	0.59
Port Jackson	AUS	-33.8333	151.2833	0.59
Catherine Hill Bay	AUS	-33.1667	151.6333	0.62
Jervis Bay	AUS	-35.1000	150.7833	0.64
Lord Howe Is.	AUS	-31.5333	159.0833	0.67
Mackay	AUS	-21.1078	149.2175	0.72
Carnarvon	AUS	-24.8833	113.6667	0.73
Thornlands	AUS	-27.5333	153.2667	0.79
Clarence River	AUS	-29.4167	153.3833	0.80
Coffs Hbr.	AUS	-30.3000	153.1500	0.80
Albany(AUS)	AUS	-35.0278	117.8956	0.82
Bunbury	AUS	-33.3358	115.6503	0.82
Useless Loop	AUS	-26.1103	113.3944	0.86
Cape Cuvier	AUS	-24.2261	113.3939	0.89
Port Alma	AUS	-23.5828	150.8597	0.90
Port Augusta	AUS	-32.5000	137.7833	0.94
Port Stanvac	AUS	-35.1167	138.4667	0.97

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Hay Point	AUS	-21.2875	149.2847	0.97
Urangan	AUS	-25.2833	152.9167	0.98
Adelaide	AUS	-34.8503	138.5669	0.99
Port Giles	AUS	-35.0225	137.7603	1.00
Port Vincent	AUS	-34.9500	137.8667	1.00
Klein Point	AUS	-34.9172	137.7928	1.00
Edithburgh	AUS	-35.0833	137.7500	1.00
Rapid Bay	AUS	-35.5167	138.1833	1.03
Eden	AUS	-37.0672	149.9064	1.08
Portland(AUS)	AUS	-38.3506	141.6058	1.09
Ballast Head	AUS	-35.7667	137.8000	1.11
Onslow	AUS	-21.6333	115.1000	1.24
Beadon	AUS	-21.6333	115.1167	1.24
Hayman Is.	AUS	-20.0667	148.8667	1.25
Exmouth(AUS)	AUS	-21.9000	114.1833	1.27
Kincumber South	AUS	-33.4667	151.3667	1.29
Dampier	AUS	-20.6825	116.7139	1.29
Sitra	BHR	26.1542	50.6317	1.28
Hamilton(BMU)	BMU	32.3000	-64.7833	0.71
Freeport(BMU)	BMU	32.3167	-64.8333	0.71
St. George's(BMU)	BMU	32.3833	-64.6667	0.71
Porto Laguna	BRA	-28.5000	-48.7500	0.37
Imbituba	BRA	-28.2336	-48.6528	0.37
Porto Belo	BRA	-27.1667	-48.5500	0.47
Tramandai	BRA	-30.0000	-50.0833	0.49
Navegantes	BRA	-26.8833	-48.6500	0.50
Itajai	BRA	-26.8994	-48.6706	0.50
Sao Francisco do Sul	BRA	-26.2333	-48.6333	0.56
Mangaratiba	BRA	-22.9000	-44.0500	0.57
Ilhabela	BRA	-23.7667	-45.3500	0.62
Buzios	BRA	-22.7500	-41.9000	0.90
Gebig	BRA	-23.0500	-44.2333	0.91
Forno	BRA	-23.0167	-42.0000	0.91
Sao Sebastiao	BRA	-23.8000	-45.3833	0.91
Angra dos Reis	BRA	-23.0061	-44.3131	0.92
Parati	BRA	-23.2167	-44.7167	0.94
Macaee	BRA	-22.3500	-41.8000	1.01
Arraial do Cabo	BRA	-22.9667	-42.0333	1.12
Ponta do Ubu	BRA	-20.7833	-40.5833	1.14
Guarapari	BRA	-20.6500	-40.5167	1.17
Praia Mole	BRA	-20.2833	-40.2333	1.18
Tubarao	BRA	-20.2833	-40.2500	1.18
Rio de Janeiro	BRA	-22.9167	-43.2000	1.20
Porto Seguro	BRA	-16.4167	-39.1167	1.26
Portocel	BRA	-19.8500	-40.0500	1.28
Ilheus	BRA	-14.7892	-39.0319	1.29
Arica	CHL	-18.4833	-70.3333	0.44
Mejillones	CHL	-23.1000	-70.4667	0.66
Taltal	CHL	-25.4000	-70.4833	0.76
Hanga Roa	CHL	-27.1500	-109.4167	0.77
Caleta Coloso	CHL	-23.7500	-70.4667	0.81

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Antofagasta	CHL	-23.6333	-70.4333	0.81
Caleta Barquito	CHL	-26.3500	-70.6500	0.81
Chanaral	CHL	-26.3500	-70.6333	0.81
Caldera(CHL)	CHL	-27.0667	-70.8833	0.83
Tocopilla	CHL	-22.0833	-70.2333	0.87
Caleta Patillos	CHL	-20.7500	-70.2000	0.90
Caleta Patache	CHL	-20.8000	-70.2000	0.90
Iquique	CHL	-20.2000	-70.1667	0.90
Caleta Michilla	CHL	-22.7333	-70.2667	0.92
Huasco	CHL	-28.4500	-71.2333	0.93
San Antonio(CHL)	CHL	-33.6000	-71.6167	1.07
Cruz Grande	CHL	-29.4500	-71.3333	1.08
Los Vilos	CHL	-31.9167	-71.5000	1.13
Puerto Papudo	CHL	-32.5000	-71.4500	1.23
Puerto Ventanas	CHL	-32.7500	-71.5000	1.27
Quintero	CHL	-32.7667	-71.5000	1.27
Zhangzhou	CHN	24.4167	118.0500	0.34
Xiamen	CHN	24.4500	118.0667	0.34
Matsu Is.	CHN	26.1500	119.9333	0.37
Songxia	CHN	25.6833	119.5833	0.38
Shipu	CHN	29.1833	121.8500	0.46
Dongshan	CHN	23.7500	117.5167	0.47
Sanbaimen	CHN	23.5333	117.0833	0.57
Raoping	CHN	23.6500	117.0167	0.57
Majishan	CHN	30.6833	122.4167	0.57
Xiuyu	CHN	25.2167	118.9833	0.59
Meizhou	CHN	25.1833	119.0000	0.59
Jinshan	CHN	30.7167	121.3167	0.60
Shanwei	CHN	22.8000	115.3333	0.69
Weitou	CHN	24.5333	118.5667	0.70
Donglian	CHN	22.7333	114.6167	0.71
Yantian	CHN	22.5900	114.2683	0.71
Shantou	CHN	23.3333	116.7500	0.72
Guangdong Term.	CHN	22.5667	114.4333	0.74
Sha Tin	CHN	22.3667	114.1667	0.77
Mawan	CHN	22.4833	113.8667	0.79
Shekou	CHN	22.4833	113.9000	0.79
Jiuzhou	CHN	22.2333	113.5833	0.83
Chiwan	CHN	22.4667	113.8833	0.83
Zhuhai	CHN	22.2833	113.5833	0.84
Beilun	CHN	29.9333	121.8833	0.84
Nanhui	CHN	31.0500	121.7500	0.85
Aotou	CHN	22.7167	114.5167	0.86
Mabianzhou	CHN	22.6667	114.6500	0.86
Huizhou	CHN	22.7000	114.5667	0.86
Zhenhai	CHN	29.9667	121.7000	0.86
Hong Kong	CHN	22.3000	114.1667	0.87
Lasawei	CHN	22.1333	113.8167	0.89
Macau	CHN	22.2000	113.5500	0.89
Beihai	CHN	21.4500	109.0500	0.90
Shanghai	CHN	31.2500	121.5000	0.91



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tinpak	CHN	21.5000	111.2500	0.95
Shuidong	CHN	21.4833	111.0667	0.95
Maoming	CHN	21.4833	111.0833	0.95
Luoqing	CHN	31.4500	121.3000	0.95
Chongming	CHN	31.6167	121.3667	0.98
Caojing	CHN	30.7667	121.4000	0.99
Zhapu	CHN	30.5833	121.0833	1.02
Xiaoshan	CHN	30.1500	120.2500	1.02
Xiashi	CHN	30.5333	120.6833	1.02
Pinghu	CHN	30.6833	121.0000	1.03
Hangzhou	CHN	30.2500	120.1667	1.03
Chuansha	CHN	31.2000	121.6833	1.03
Yutang	CHN	21.9333	112.7667	1.04
Fengxian	CHN	30.9167	121.4333	1.04
Jiaxing	CHN	30.8500	120.8667	1.04
Dongying	CHN	37.4500	118.4667	1.04
Macun	CHN	19.9500	110.0500	1.08
Tianjin	CHN	39.1000	117.1667	1.09
Hankong	CHN	25.4333	119.0833	1.09
Xingang	CHN	38.9833	117.7500	1.09
Huanghua	CHN	38.3667	117.3333	1.10
Tanggu	CHN	39.0000	117.6500	1.10
Taicang	CHN	31.4500	121.0833	1.10
Kunshan	CHN	31.3667	120.9333	1.11
Qinglan	CHN	19.5833	110.8833	1.12
Chaoyang	CHN	23.2667	116.5667	1.13
Shijiusuo	CHN	35.3833	119.5667	1.19
Lanshan	CHN	35.0833	119.3500	1.21
Lianyungang	CHN	34.7333	119.4500	1.22
Putian	CHN	25.4333	119.0167	1.24
Puqian	CHN	20.0333	110.5667	1.28
Basuo	CHN	19.1000	108.6167	1.29
Los Cristianos	CNI	28.0500	-16.7167	0.51
Arguineguin	CNI	27.7500	-15.6667	0.52
Santa Cruz de Tenerife	CNI	28.4833	-16.2333	0.70
Palma(Canary Is)	CNI	28.6833	-17.7667	0.71
Santa Cruz de la Palma	CNI	28.6667	-17.7500	0.71
Gomera	CNI	28.1000	-17.1000	0.72
San Sebastian(CNI)	CNI	28.0833	-17.1167	0.72
La Estaca	CNI	27.7833	-17.9000	0.75
Hierro	CNI	27.7500	-18.0000	0.75
Las Palmas	CNI	28.1331	-15.4319	0.75
La Salineta	CNI	27.9667	-15.3667	0.76
Arrecife	CNI	28.9500	-13.5500	0.79
Puerto del Rosario	CNI	28.5000	-13.8500	0.79
Morrojable	CNI	28.0333	-14.3333	0.81
Gran Tarajal	CNI	28.2000	-14.0167	0.84
Moanda Term.	COD	-5.9667	12.1333	1.12
Pedra de Lume	CPV	16.7500	-22.9000	0.93
Palmeira	CPV	16.7500	-23.0000	0.93
Santa Maria(CPV)	CPV	16.5833	-22.9167	0.95

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Porto de Sal-Rei	CPV	16.1667	-22.9500	0.98
St. Nicholas(CPV)	CPV	16.6333	-24.2833	1.01
Ponta do Sol	CPV	17.2000	-25.1000	1.03
Porto Novo(CPV)	CPV	17.0167	-25.0667	1.03
Mindelo	CPV	16.8833	-25.0000	1.03
St. Vincent(CPV)	CPV	16.9000	-25.0000	1.03
Maio	CPV	15.2000	-23.2500	1.06
Praia(CPV)	CPV	14.9000	-23.5167	1.08
Fogo	CPV	14.8667	-24.4833	1.13
Brava	CPV	14.8167	-24.6833	1.14
Havana	CUB	23.1333	-82.3500	1.29
Paphos	CYP	34.7500	32.4167	0.23
Xeros Pier	CYP	35.1333	32.8333	0.39
Karavostassi	CYP	35.1333	32.8167	0.39
Latchi	CYP	35.0333	32.4000	0.41
Vassiliko Bay	CYP	34.7000	33.3333	0.45
Limassol	CYP	34.6542	33.0103	0.45
Akrotiri	CYP	34.5667	33.0333	0.45
Larnaca	CYP	34.9167	33.6333	0.45
Dhekelia	CYP	34.9833	33.7333	0.48
Famagusta	CYP	35.1167	33.9333	0.48
Kalecik	CYP	35.3167	33.9833	0.50
Kyrenia	CYP	35.3333	33.3167	0.51
Teknecik	CYP	35.2833	33.4667	0.51
Collo	DZA	37.0089	6.5633	0.13
Djen Djen	DZA	36.8208	5.7700	0.13
Oran	DZA	35.7058	-0.6422	0.13
Skikda	DZA	36.8778	6.9439	0.15
Bejaia	DZA	36.7217	5.0739	0.15
Dellys	DZA	36.9197	3.8936	0.19
Annaba	DZA	36.8997	7.7567	0.20
Tenes	DZA	36.5186	1.3197	0.24
Cherchell	DZA	36.6081	2.1931	0.24
Algiers	DZA	36.7706	3.0531	0.26
Mostaganem	DZA	35.9347	0.0808	0.28
Ghazaouet	DZA	35.0981	-1.8578	0.32
Mers el Kebir	DZA	35.7333	-0.7000	0.33
Beni Saf	DZA	35.3008	-1.3906	0.35
Arzew	DZA	35.8606	-0.3097	0.36
Galapagos Is.	ECU	-0.2667	-91.3667	0.81
La Libertad(ECU)	ECU	-2.2167	-80.9167	0.93
Salinas	ECU	-2.1667	-80.9500	0.93
Manta	ECU	-0.9333	-80.7167	1.22
El Arish	EGY	31.1167	33.8000	0.37
Mersa Matruh	EGY	31.3667	27.2333	0.40
Abu Kir	EGY	31.3000	30.0667	0.46
Idku	EGY	31.3500	30.3000	0.46
El Dekheila	EGY	31.1500	29.8000	0.46
Alexandria(EGY)	EGY	31.1833	29.8667	0.46
El Agami Is.	EGY	31.1500	29.7833	0.46
Sokhna	EGY	29.6833	32.3667	0.47

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ras Sudr Term.	EGY	29.5833	32.6833	0.49
Port Said	EGY	31.2500	32.3000	0.51
Port Fouad	EGY	31.2333	32.3333	0.51
Adabiya	EGY	29.8667	32.4667	0.55
Fayid	EGY	30.3333	32.3000	0.59
Nifisha	EGY	30.5667	32.2500	0.62
Ismailia	EGY	30.5833	32.2833	0.62
Abu Rudeis	EGY	28.9000	33.1667	0.64
Abu Sultan	EGY	30.4167	32.3000	0.65
Nuweiba	EGY	28.9667	34.6333	0.67
Abu Zenima	EGY	29.0333	33.1167	0.70
Fanara	EGY	30.2833	32.3500	0.70
Ras Gharib	EGY	28.3500	33.1167	0.76
Ras Misalla	EGY	29.8167	32.6167	0.78
Sadat	EGY	29.8000	32.4500	0.79
Marakib	EGY	29.9167	32.5667	0.84
Suez	EGY	29.9667	32.5500	0.84
Port Ibrahim	EGY	29.9333	32.5500	0.84
Safaga	EGY	26.7333	33.9333	0.92
El Tur	EGY	28.2167	33.6167	0.95
Marsa Gamsa	EGY	27.6500	33.6000	1.07
Sharm el Sheikh	EGY	27.8500	34.2833	1.13
Kosseir	EGY	26.1000	34.2833	1.18
Hamrawein	EGY	26.2500	34.2000	1.18
Hurghada	EGY	27.2500	33.8167	1.21
Abu Ghosoun	EGY	24.4333	35.1833	1.29
Laayoune	ESH	27.0833	-13.4333	0.72
Dakhla	ESH	23.7000	-15.9167	0.96
Rota	ESP	36.6167	-6.3667	0.00
Cadiz	ESP	36.5000	-6.3333	0.00
Almeria	ESP	36.8333	-2.5000	0.08
Roquetas	ESP	36.7500	-2.6167	0.08
Mahon	ESP	39.8667	4.3000	0.12
Porto Colom	ESP	39.4333	3.2500	0.12
Puerto Pollensa	ESP	39.8833	3.0667	0.13
Alcudia	ESP	39.8333	3.1333	0.13
Barbate	ESP	36.1667	-5.9833	0.13
Formentera	ESP	38.6500	1.5833	0.15
La Savina	ESP	38.7333	1.4167	0.16
Ibiza	ESP	38.9000	1.4667	0.16
La Canal	ESP	38.8333	1.3833	0.16
Denia	ESP	38.8333	0.1167	0.16
San Antonio(ESP)	ESP	38.9833	1.3000	0.17
Santa Pola	ESP	38.2000	-0.5667	0.18
Gandia	ESP	39.0000	-0.1500	0.18
Cullera	ESP	39.1833	-0.2167	0.18
Alicante	ESP	38.3333	-0.4833	0.18
Tarifa	ESP	36.0000	-5.6000	0.18
San Pedro del Pinatar	ESP	37.8167	-0.7500	0.19
Torrevecija	ESP	37.9667	-0.6833	0.19
Valencia	ESP	39.4500	-0.3000	0.19

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Aguilas	ESP	37.4000	-1.5667	0.19
Cartagena(ESP)	ESP	37.5833	-0.9833	0.20
Escombreras	ESP	37.5500	-0.9667	0.20
Sagunto	ESP	39.6500	-0.2167	0.21
Carboneras	ESP	37.0000	-1.8833	0.22
Garrucha	ESP	37.1667	-1.8333	0.22
Malaga	ESP	36.7178	-4.4250	0.23
Ciudadela	ESP	40.0000	3.8333	0.23
Burriana	ESP	39.8667	-0.0667	0.24
Castellon	ESP	39.9667	0.0167	0.26
Vinaroz	ESP	40.4667	0.4667	0.29
San Carlos de la Rapita	ESP	40.6000	0.6000	0.32
Alcanar	ESP	40.5833	0.5500	0.32
Villanueva y Geltru	ESP	41.2167	1.7333	0.36
Melilla	ESP	35.2833	-2.9333	0.40
Tarragona	ESP	41.1000	1.2333	0.42
Almunecar	ESP	36.7333	-3.6833	0.44
Palma(Maj)	ESP	39.5697	2.6256	0.50
Barcelona	ESP	41.3500	2.1667	0.54
Puerto Banus	ESP	36.4833	-4.9333	0.57
Motril	ESP	36.7167	-3.5167	0.59
San Feliu de Guixols	ESP	41.7667	3.0167	0.63
Palamos	ESP	41.8333	3.1333	0.63
Vallcarca	ESP	41.2333	1.8667	0.69
Rosas	ESP	42.2500	3.1833	0.75
Puerto de Santa Maria	ESP	36.6000	-6.2333	0.78
Ceuta	ESP	35.8833	-5.3167	0.86
Algeciras	ESP	36.1167	-5.4333	0.88
Guetaria	ESP	43.3000	-2.2000	0.90
Zumaya	ESP	43.3000	-2.2500	0.90
San Fernando(ESP)	ESP	36.4667	-6.2000	0.91
Ondarroa	ESP	43.3167	-2.4167	0.91
Lequeitio	ESP	43.3667	-2.4833	0.91
Santander	ESP	43.4667	-3.7667	0.98
Lage	ESP	43.2167	-9.0000	1.01
Puerto Real	ESP	36.5333	-6.1833	1.02
Huelva	ESP	37.2667	-6.9167	1.03
Corunna	ESP	43.3833	-8.3667	1.03
Santona	ESP	43.4667	-3.4667	1.06
Pasajes	ESP	43.3333	-1.9333	1.07
San Sebastian(ESP)	ESP	43.3167	-1.9833	1.07
Aviles	ESP	43.5833	-5.9333	1.07
Gijon	ESP	43.5500	-5.6667	1.08
Ribadesella	ESP	43.4667	-5.0667	1.10
Villaviciosa	ESP	43.5333	-5.3833	1.10
San Javier	ESP	37.8000	-0.8333	1.10
Castro Urdiales	ESP	43.4000	-3.2333	1.11
Puerto de Vega	ESP	43.5667	-6.6333	1.12
Navia	ESP	43.5500	-6.7167	1.12
Bermeo	ESP	43.4167	-2.7167	1.12
Tapia de Casariego	ESP	43.5667	-6.9333	1.14

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Castropol	ESP	43.5333	-7.0167	1.14
Cudillero	ESP	43.5500	-6.1500	1.18
San Esteban de Pravia	ESP	43.5667	-6.0833	1.18
Ribadeo	ESP	43.5333	-7.0333	1.19
Camarinas	ESP	43.1167	-9.1833	1.21
Burela	ESP	43.6500	-7.3333	1.22
San Ciprian	ESP	43.7000	-7.4500	1.22
Santa Eugenia de Riveira	ESP	42.5500	-8.9833	1.28
Porto Vecchio	FRA	41.6000	9.2833	0.35
Porquerolles	FRA	42.9833	6.2000	0.44
Bonifacio	FRA	41.3833	9.1000	0.47
Hyerres-Plage	FRA	43.0833	6.1500	0.48
Toulon	FRA	43.1167	5.9167	0.56
La Seyne	FRA	43.1000	5.8833	0.56
St. Tropez	FRA	43.2667	6.6333	0.56
Villefranche	FRA	43.7000	7.3167	0.58
Nice	FRA	43.7000	7.2833	0.58
Beaulieu	FRA	43.7000	7.3333	0.58
Ile Rousse	FRA	42.6500	8.9333	0.63
Calvi	FRA	42.5833	8.8000	0.63
Propriano	FRA	41.6667	8.9000	0.65
Antibes	FRA	43.5833	7.1333	0.65
Cannes	FRA	43.5167	7.0167	0.65
Ajaccio	FRA	41.9167	8.7333	0.71
La Nouvelle	FRA	43.0167	3.0667	0.72
Sete	FRA	43.4000	3.7000	0.75
Fos	FRA	43.3833	4.8500	0.76
Le Lavandou	FRA	43.1333	6.3667	0.78
Marseilles	FRA	43.3333	5.3500	0.79
Etang de Berre	FRA	43.4833	5.1667	0.80
La Ciotat	FRA	43.1667	5.6000	0.83
Cassis	FRA	43.2167	5.5333	0.83
Biarritz	FRA	43.5000	-1.5667	0.85
Bastia	FRA	42.7000	9.4500	0.85
Sanary-sur-Mer	FRA	43.1167	5.8000	0.90
Lavera	FRA	43.3833	5.0000	0.92
Port de Bouc	FRA	43.4000	4.9833	0.92
Martigues	FRA	43.4000	5.0500	0.92
St. Jean de Luz	FRA	43.4000	-1.6667	0.93
Port Vendres	FRA	42.5167	3.1167	0.97
Collioure	FRA	42.5333	3.0833	0.97
La Pallice	FRA	46.1667	-1.2333	1.13
La Rochelle	FRA	46.1500	-1.1500	1.18
Marennes	FRA	45.8167	-1.1000	1.21
La Teste	FRA	44.6167	-1.1500	1.29
Tema	GHA	5.6167	0.0167	1.29
Gibraltar	GIB	36.1500	-5.3333	0.88
Basse Terre	GLP	16.0333	-61.7500	1.13
Banjul	GMB	13.4500	-16.5667	0.87
Luba	GNQ	3.4667	8.5500	1.22
Utonde	GNQ	1.9167	9.8000	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bata	GNQ	1.8667	9.7667	1.26
Sitia	GRC	35.2167	26.1167	0.21
Kyparissia	GRC	37.2500	21.6833	0.23
Pachia Ammos	GRC	35.1167	25.8333	0.24
Ayios Nikolaos(Crete)	GRC	35.1833	25.7167	0.24
Ayia Galini	GRC	35.1000	24.6833	0.24
Zante	GRC	37.7833	20.9000	0.25
Cape Tainaron	GRC	36.3833	22.4833	0.25
Gythion	GRC	36.7500	22.5667	0.25
Kyllini	GRC	37.9500	21.1500	0.25
Pylos	GRC	36.9167	21.7000	0.25
Araxos	GRC	38.1667	21.4000	0.26
Stavros	GRC	38.4500	20.6500	0.26
Vathi	GRC	38.3667	20.7333	0.27
Megara	GRC	37.9667	23.4000	0.27
Pachi	GRC	37.9667	23.3833	0.27
Revithousa	GRC	37.9592	23.4036	0.27
Aegina	GRC	37.7333	23.4167	0.28
Piraeus	GRC	37.9333	23.6333	0.28
Drapetzona	GRC	37.9333	23.6167	0.28
Perama	GRC	37.9500	23.5833	0.28
Salamis	GRC	37.9667	23.5000	0.28
St. George Hbr.(GRC)	GRC	37.9500	23.6000	0.28
Ambelaki	GRC	37.9500	23.5333	0.28
Platiyali	GRC	38.4667	21.1000	0.28
Kiato	GRC	38.0167	22.7333	0.29
Katakolon	GRC	37.6500	21.3333	0.30
Metokhi	GRC	37.7000	23.3833	0.30
Poros	GRC	37.5000	23.4667	0.30
Skiathos	GRC	39.1667	23.4833	0.31
Kissamos	GRC	35.4833	23.6333	0.31
Ermioni	GRC	37.3833	23.2333	0.32
Hydra	GRC	37.3500	23.4667	0.32
Suda Bay	GRC	35.4833	24.0500	0.32
Kithira	GRC	36.1333	23.0000	0.32
Larimna	GRC	38.5667	23.3000	0.33
Stratoni	GRC	40.5167	23.8500	0.34
Argostoli	GRC	38.2000	20.4833	0.35
Rhodes	GRC	36.4500	28.2333	0.35
Kali Limenes	GRC	34.9333	24.8333	0.35
Mandoudhi	GRC	38.8167	23.5333	0.36
Kymassi	GRC	38.8167	23.5167	0.36
Proti Is.	GRC	37.0500	21.5500	0.36
Skopelos	GRC	39.1167	23.7500	0.36
Alonisos	GRC	39.1500	23.8333	0.36
Iraklion	GRC	35.2667	25.1667	0.36
Linoperamata	GRC	35.3500	25.0500	0.36
Preveza	GRC	38.9500	20.7500	0.36
Gavdo	GRC	34.8333	24.0667	0.37
Rethimnon	GRC	35.3667	24.4667	0.37
Vatika Bay	GRC	36.5167	23.0000	0.38

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Neapolis	GRC	36.5000	23.0500	0.38
Monemvasia	GRC	36.6833	23.0500	0.38
Nauplia	GRC	37.5667	22.8000	0.38
Laurium	GRC	37.7000	24.0667	0.40
Karpathos	GRC	35.5000	27.2000	0.40
Adhamas	GRC	36.7167	24.4500	0.40
Simi	GRC	36.6167	27.8333	0.40
Skaramanga	GRC	38.0000	23.5833	0.41
Kithnos	GRC	37.4000	24.4667	0.42
Kimolos	GRC	36.7833	24.5667	0.42
Sifnos Is.	GRC	36.9667	24.7167	0.42
Porto Rafti	GRC	37.8833	24.0000	0.43
Voudia Bay	GRC	36.7500	24.5333	0.43
Kimi	GRC	38.6333	24.1000	0.43
Kea	GRC	37.6333	24.3333	0.43
Ayios Nikolaos(Kea)	GRC	37.6667	24.3167	0.43
Pythagorion	GRC	37.6833	26.9333	0.43
Rafina	GRC	38.0167	24.0000	0.43
Kheli	GRC	37.3167	23.1500	0.44
Spetsai	GRC	37.2667	23.1667	0.44
Drepanon	GRC	38.7833	20.7333	0.44
Serifos	GRC	37.1167	24.5333	0.44
Mesolongion	GRC	38.3167	21.3667	0.45
Nisiros	GRC	36.6167	27.1333	0.45
Yali	GRC	36.6500	27.1167	0.45
Kalamata	GRC	37.0000	22.1167	0.45
Karistos	GRC	38.0167	24.4167	0.46
Halki	GRC	36.2167	27.5833	0.46
Corfu	GRC	39.6167	19.9500	0.46
Thira	GRC	36.4167	25.4500	0.46
Corinth	GRC	37.9500	22.9333	0.46
Kos	GRC	36.8833	27.3167	0.47
Kalymnos	GRC	36.9500	26.9833	0.47
Ayios Evstratios	GRC	39.5167	24.9667	0.47
Syros	GRC	37.4333	24.9500	0.48
Isthmia	GRC	37.9167	23.0000	0.49
Myrina	GRC	39.8667	25.0500	0.49
Astipalia	GRC	36.5333	26.3667	0.50
Andros	GRC	37.8167	24.9000	0.51
Naxos	GRC	37.1000	25.3833	0.51
Paros	GRC	37.0833	25.3167	0.51
Samothraki	GRC	40.4500	25.5333	0.51
Amorgos	GRC	36.8167	25.9000	0.51
Tinos	GRC	37.5333	25.1667	0.51
Aspropyrgos	GRC	38.0167	23.5833	0.52
Mykonos	GRC	37.4500	25.3333	0.52
Delos	GRC	37.4000	25.2833	0.52
Agioi Theodoroi	GRC	37.9000	23.0500	0.54
Kalamaki	GRC	37.9167	23.0167	0.54
Sousaki	GRC	37.9167	23.1167	0.54
Aegion	GRC	38.2500	22.1000	0.55

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Astakos	GRC	38.5333	21.0833	0.55
Ayia Marina(Leros Is.)	GRC	37.1500	26.8500	0.56
Port Laki	GRC	37.1167	26.8500	0.56
Patmos	GRC	37.3000	26.5833	0.59
Rion	GRC	38.3000	21.8000	0.60
Patras	GRC	38.2500	21.7333	0.60
Eleusis	GRC	38.0333	23.5000	0.60
Samos	GRC	37.7500	26.9667	0.61
Mytilene	GRC	39.1000	26.5833	0.63
Chios	GRC	38.3833	26.1500	0.63
Karlovassi	GRC	37.8000	26.6833	0.65
Galaxidi	GRC	38.3667	22.3833	0.66
Itea	GRC	38.4333	22.4167	0.66
Limni	GRC	38.7667	23.3167	0.66
Igoumenitsa	GRC	39.5333	20.2167	0.67
Nea Moudhania	GRC	40.2333	23.2833	0.78
Kalyvia	GRC	40.2667	23.4000	0.81
Yerakini	GRC	40.2667	23.4333	0.81
Thessaloniki	GRC	40.6333	22.9333	0.87
Prinos	GRC	40.9333	24.5167	0.87
Lagos(GRC)	GRC	41.0000	25.1167	0.87
Thisvi	GRC	38.2500	22.9500	0.91
Elevtherai	GRC	40.8333	24.3167	0.98
Nea Peramos	GRC	40.8167	24.3000	0.98
Nea Karvali	GRC	40.9500	24.4833	0.99
Kavala	GRC	40.9167	24.4167	0.99
Eratini	GRC	38.3500	22.2333	1.00
Aspra Spitia	GRC	38.3667	22.6333	1.00
Alexandroupolis	GRC	40.8500	25.9500	1.03
Thasos	GRC	40.7667	24.7000	1.06
Brna	HRV	42.9000	16.8500	0.38
Lastovo	HRV	42.7667	16.9000	0.38
Ubli	HRV	42.7333	16.8167	0.38
Komiza	HRV	43.0333	16.0833	0.45
Stari Grad	HRV	43.2000	16.5500	0.45
Vela Luka	HRV	42.9833	16.6167	0.45
Milna	HRV	43.3167	16.4500	0.47
Hvar	HRV	43.2667	16.4500	0.48
Sali	HRV	43.9167	15.1667	0.48
Veli Rat	HRV	44.1500	14.8167	0.54
Mali Losinj	HRV	44.5333	14.4667	0.58
Gradac	HRV	44.9667	14.1000	0.60
Merag	HRV	44.9833	14.4333	0.68
Beli	HRV	45.1000	14.3667	0.68
Valbiska	HRV	45.0500	14.4667	0.68
Korcula	HRV	42.8000	17.1333	0.70
Dugi Rat	HRV	43.4500	16.6500	0.75
Supetar	HRV	43.3833	16.5500	0.75
Bol	HRV	43.2500	16.6500	0.78
Sibenik	HRV	43.7333	15.9000	0.84
Primosten	HRV	43.6833	15.9500	0.84



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Brijuni	HRV	44.9000	13.7833	0.85
Budava	HRV	44.9000	13.9833	0.89
Ploce	HRV	43.0333	17.4167	0.89
Vrsar	HRV	45.1500	13.6000	0.91
Rovinj	HRV	45.0833	13.6333	0.91
Rab	HRV	44.7500	14.7667	0.91
Vranjic	HRV	43.5000	16.4500	0.91
Split	HRV	43.5000	16.4500	0.91
Trogir	HRV	43.5167	16.2500	0.91
Brbinj	HRV	44.0667	14.9833	0.92
Porec	HRV	45.2333	13.6000	0.92
Novigrad	HRV	45.3167	13.5667	0.92
Luka Mirna	HRV	45.3000	13.5667	0.92
Ugljan	HRV	44.1333	15.1167	0.94
Malinska	HRV	45.1167	14.5167	0.95
Krk	HRV	45.0167	14.5833	0.96
Zadar	HRV	44.1167	15.2333	0.96
Umag	HRV	45.4333	13.5167	0.96
Kastel Sucurac	HRV	43.5500	16.4167	0.97
Solin	HRV	43.5333	16.4667	0.97
Ravnice	HRV	43.4167	16.7000	0.98
Omis	HRV	43.4333	16.7000	0.98
Cavtat	HRV	42.5667	18.2167	1.00
Pula	HRV	44.8833	13.8333	1.05
Pag	HRV	44.4500	15.0500	1.05
Gruz	HRV	42.6667	18.0833	1.10
Dubrovnik	HRV	42.6333	18.1167	1.10
Prtlog	HRV	45.0500	14.1500	1.10
Rabac	HRV	45.0667	14.1667	1.10
Tar	HRV	45.3167	13.6000	1.28
Bandar Imam Khomeini	IRN	30.4167	49.0667	0.81
Bandar Mahshahr	IRN	30.4667	49.1833	0.81
Asaluyeh Term.	IRN	27.5167	52.5333	0.90
Bandar Taheri	IRN	27.6500	52.3500	0.98
Imam Hasan	IRN	29.8000	50.1833	1.05
Kharg Is.	IRN	29.2333	50.3167	1.14
Bushire	IRN	28.9833	50.8333	1.22
Kish Is.	IRN	26.5500	54.0333	1.24
Ganaveh	IRN	29.5667	50.5167	1.25
Tel Aviv	ISR	32.1000	34.7833	0.29
Haifa	ISR	32.8167	35.0000	0.29
Ashkelon	ISR	31.6667	34.5500	0.33
Hadera	ISR	32.4500	34.9167	0.34
Akko	ISR	32.9167	35.0667	0.41
Ashdod	ISR	31.8258	34.6542	0.67
Eilat	ISR	29.5500	34.9500	0.77
Mazara del Vallo	ITA	37.6500	12.5833	0.08
Sciacca	ITA	37.5000	13.0833	0.09
Licata	ITA	37.1000	13.9333	0.12
Ustica	ITA	38.7000	13.1833	0.13
Termini Imerese	ITA	37.9833	13.7000	0.13

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Porticello	ITA	38.0833	13.5333	0.13
Castellammare del Golfo	ITA	38.0333	12.8833	0.14
Salina	ITA	38.5667	14.8667	0.14
Rinella	ITA	38.5500	14.8333	0.14
Lipari	ITA	38.4667	14.9500	0.14
Vulcano	ITA	38.4167	14.9667	0.14
Linosa Is.	ITA	35.8667	12.8500	0.14
Lampedusa Is.	ITA	35.5000	12.6000	0.14
Capo San Vito	ITA	38.2000	12.7167	0.14
Trapani	ITA	38.0333	12.5167	0.14
Porto Empedocle	ITA	37.2833	13.5333	0.14
Panarea	ITA	38.6333	15.0667	0.14
Stromboli	ITA	38.8000	15.2500	0.14
Gela	ITA	37.0667	14.2500	0.17
Taormina	ITA	37.8500	15.3000	0.17
Giardini	ITA	37.8333	15.2833	0.17
Gioia Tauro	ITA	38.4333	15.9000	0.18
Pantelleria	ITA	36.7833	12.0000	0.18
Marsala	ITA	37.8000	12.4333	0.18
Favignana	ITA	37.9333	12.3333	0.18
Reggio di Calabria	ITA	38.1167	15.6500	0.18
Messina	ITA	38.2000	15.5667	0.18
Villa San Giovanni	ITA	38.2167	15.6333	0.18
Pozzallo	ITA	36.7167	14.8500	0.18
Porto Xifonio	ITA	37.2333	15.2333	0.19
Santa Panagia	ITA	37.1167	15.2667	0.20
Siracusa	ITA	37.0500	15.3000	0.20
Porto d'Ischia	ITA	40.7333	13.9500	0.20
Casamicciola Terme	ITA	40.7500	13.9000	0.20
Marzamemi	ITA	36.7500	15.1167	0.20
Augusta	ITA	37.2000	15.2167	0.20
Avola	ITA	36.9000	15.1500	0.21
Milazzo	ITA	38.2167	15.2500	0.21
Capri	ITA	40.5500	14.2500	0.21
Positano	ITA	40.6167	14.4667	0.21
Sorrento	ITA	40.6333	14.3833	0.21
Palermo	ITA	38.1167	13.3667	0.21
Ponza	ITA	40.9000	12.9667	0.21
Riposto	ITA	37.7333	15.2167	0.22
Torregrotta	ITA	38.2000	15.3667	0.23
Agropoli	ITA	40.3333	14.9667	0.23
Gaeta	ITA	41.2167	13.5833	0.23
Crotone	ITA	39.0833	17.1333	0.24
Ciro Marina	ITA	39.3667	17.1333	0.24
Oristano	ITA	39.8667	8.5500	0.24
Brindisi	ITA	40.6500	17.9833	0.26
Otranto	ITA	40.1500	18.5000	0.27
Taranto	ITA	40.4500	17.2000	0.27
Piombino	ITA	42.9333	10.5500	0.27
Porto Vesme	ITA	39.2000	8.4000	0.28
Sant' Antioco	ITA	39.0333	8.4333	0.28

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Portoscuso	ITA	39.2167	8.3667	0.28
Carloforte	ITA	39.1500	8.3167	0.28
Marina di Catanzaro	ITA	38.8167	16.6167	0.28
Anzio	ITA	41.4500	12.6333	0.28
Cagliari	ITA	39.2000	9.0833	0.30
Vibo Valentia	ITA	38.7167	16.1333	0.31
Palau(ITA)	ITA	41.1833	9.3833	0.31
La Maddalena	ITA	41.2167	9.4000	0.31
Portoferraio	ITA	42.8167	10.3333	0.31
Rio Marina	ITA	42.8167	10.4333	0.31
Porto Azzurro	ITA	42.7667	10.4000	0.31
Porto Torres	ITA	40.8333	8.4000	0.34
Vallone	ITA	42.7000	10.4000	0.34
Giglio Is.	ITA	42.3667	10.9167	0.36
Alghero	ITA	40.5667	8.3167	0.36
Gallipoli	ITA	40.0500	18.0000	0.37
Sarroch	ITA	39.0833	9.0333	0.37
Capraia Is.	ITA	43.0500	9.9000	0.40
Olbia	ITA	40.9167	9.5667	0.40
Santa Liberata	ITA	42.4167	11.1500	0.40
Porto Santo Stefano	ITA	42.4500	11.1167	0.40
Porto Cervo	ITA	41.1333	9.5500	0.43
Golfo Aranci	ITA	41.0000	9.6167	0.43
Acciaroli	ITA	40.1667	15.0167	0.43
Tremiti Is.	ITA	42.1167	15.5000	0.43
Pozzuoli	ITA	40.8167	14.1167	0.43
Bagnoli	ITA	40.8000	14.1667	0.43
Baia	ITA	40.8167	14.0833	0.43
Procida	ITA	40.7833	14.0333	0.43
Barletta	ITA	41.3167	16.2667	0.43
Trani	ITA	41.2833	16.4167	0.43
Arbatax	ITA	39.9333	9.7000	0.44
Ortona	ITA	42.3500	14.4167	0.44
Pescara	ITA	42.4667	14.2333	0.44
Santa Teresa Gallura	ITA	41.2333	9.1667	0.44
Termoli	ITA	42.0000	15.0000	0.45
Catania	ITA	37.5167	15.1000	0.47
Civitavecchia	ITA	42.1000	11.8000	0.47
Molfetta	ITA	41.2167	16.6333	0.51
Portici	ITA	40.8167	14.3333	0.51
Ancona	ITA	43.6172	13.5117	0.51
Fiumicino	ITA	41.7667	12.2333	0.52
Ostia	ITA	41.7167	12.3000	0.52
Corigliano	ITA	39.6667	16.5167	0.52
Bari	ITA	41.1333	16.8833	0.53
Naples	ITA	40.8500	14.2667	0.54
Fano	ITA	43.8500	13.0167	0.55
Torre Annunziata	ITA	40.7500	14.4500	0.55
Manfredonia	ITA	41.6167	15.9167	0.55
Torre del Greco	ITA	40.7833	14.3667	0.55
Castellammare di Stabia	ITA	40.7000	14.4833	0.55

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Terracina	ITA	41.2833	13.2500	0.56
Follonica	ITA	42.9167	10.7500	0.59
Portiglione	ITA	42.8833	10.7667	0.59
Imperia	ITA	43.8833	8.0333	0.59
Bagnara Calabria	ITA	38.2667	15.8000	0.59
Talamone	ITA	42.5500	11.1333	0.61
Pietra Ligure	ITA	44.1500	8.2833	0.63
Monopoli	ITA	40.9500	17.3000	0.65
Vasto	ITA	42.1000	14.7167	0.65
Leghorn	ITA	43.5500	10.3167	0.66
Vieste	ITA	41.8667	16.1833	0.67
Vada	ITA	43.3500	10.4500	0.69
Salerno	ITA	40.6833	14.7667	0.71
Santa Giusta	ITA	39.8833	8.6167	0.75
Rimini	ITA	44.0667	12.5833	0.75
Ameglia	ITA	44.0667	9.9667	0.76
Ventimiglia	ITA	43.7833	7.6000	0.77
Bordighera	ITA	43.7833	7.6667	0.77
Amalfi	ITA	40.6333	14.6000	0.78
Ravenna	ITA	44.4167	12.4500	0.81
San Benedetto del Tronto	ITA	42.9500	13.8833	0.82
Porto Garibaldi	ITA	44.6833	12.2333	0.83
Giulianova	ITA	42.7500	13.9667	0.84
Viareggio	ITA	43.8667	10.2500	0.87
Savona	ITA	44.3000	8.4833	0.88
Chioggia	ITA	45.2167	12.2833	0.89
Porto Levante	ITA	45.0667	12.3667	0.89
Formia	ITA	41.2500	13.6000	0.90
La Spezia	ITA	44.1167	9.8333	0.92
Portovenere	ITA	44.0500	9.8333	0.92
Pellestrina	ITA	45.2667	12.3000	0.92
Marano	ITA	45.4333	12.3500	0.92
Venice	ITA	45.4333	12.3333	0.92
Falconara	ITA	43.6667	13.4000	0.93
Genoa	ITA	44.4167	8.9167	0.96
Senigallia	ITA	43.7000	13.0500	0.97
Trieste	ITA	45.6500	13.8000	0.98
Muggia	ITA	45.6000	13.7500	0.98
Lavagna	ITA	44.3000	9.3500	1.00
Sestri Levante	ITA	44.2667	9.3833	1.00
Pesaro	ITA	43.9167	12.9000	1.00
Monfalcone	ITA	45.7833	13.5500	1.03
Cattolica	ITA	43.9500	12.7333	1.04
Marina di Carrara	ITA	44.0333	10.0500	1.10
Cesenatico	ITA	44.2000	12.4000	1.10
Portofino	ITA	44.3000	9.2333	1.23
Santa Margherita(ITA)	ITA	44.3333	9.2167	1.23
San Remo	ITA	43.8167	7.7833	1.25
St. Anns Bay	JAM	18.4333	-77.2000	1.20
Ocho Rios	JAM	18.4167	-77.1167	1.20
Aqaba	JOR	29.5167	35.0167	0.63

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Yaizu	JPN	34.8667	138.3333	0.17
Oigawa	JPN	34.7833	138.3000	0.17
Ikata	JPN	33.4833	132.3500	0.18
Kawanoishi	JPN	33.4833	132.3833	0.18
Omaezaki	JPN	34.6000	138.2333	0.19
Misaki	JPN	33.3833	132.1333	0.20
Izuhara	JPN	34.1833	129.3000	0.21
Toyohashi	JPN	34.7167	137.3167	0.21
Tsutsu	JPN	34.1167	129.1833	0.21
Shimoda	JPN	34.6667	138.9500	0.22
Nagashima	JPN	34.1833	136.3500	0.23
Atsumi	JPN	34.6667	137.0667	0.24
Toba	JPN	34.4833	136.8500	0.24
Nagasaki	JPN	32.7167	129.8333	0.25
Udono	JPN	33.7333	136.0167	0.25
Usami	JPN	35.0000	139.1000	0.25
Miura	JPN	35.1333	139.6167	0.25
Matsushima	JPN	32.9333	129.6000	0.25
Oseto	JPN	32.9333	129.6500	0.25
Hitakatsu	JPN	34.6833	129.4500	0.25
Kamigoto	JPN	32.9833	129.0667	0.26
Gotsu	JPN	35.0000	132.2167	0.28
Uraga	JPN	35.2333	139.7333	0.28
Futtsu	JPN	35.3000	139.8167	0.29
Moji	JPN	33.9500	130.9667	0.29
Kokura	JPN	33.9000	130.9000	0.29
Shimonoseki	JPN	33.9333	130.9333	0.29
Mutsure	JPN	33.9667	130.8667	0.29
Taisha	JPN	35.4333	132.6667	0.29
Kuchinotsu	JPN	32.6000	130.2000	0.29
Reihoku	JPN	32.5000	130.0333	0.29
Tsu	JPN	34.6833	136.5500	0.30
Matsuyama	JPN	33.8500	132.7000	0.32
Naruto	JPN	34.1833	134.6167	0.33
Komatsushima	JPN	34.0000	134.6000	0.33
Tokushima	JPN	34.0500	134.6000	0.33
Shingu	JPN	33.7000	136.0000	0.34
Onahama	JPN	36.9333	140.9167	0.34
Iwakuni	JPN	34.1667	132.2500	0.38
Kanokawa	JPN	34.1667	132.4333	0.38
Ogaki	JPN	34.1667	132.4500	0.38
Arida	JPN	34.0833	135.1167	0.38
Shimotsu	JPN	34.1167	135.1333	0.38
Kainan	JPN	34.1500	135.1833	0.38
Wakayama	JPN	34.2000	135.1333	0.38
Sakaiminato	JPN	35.5333	133.2500	0.39
Yokkaichi	JPN	34.9500	136.6500	0.40
Kanda	JPN	33.8000	131.0000	0.46
Tanoura	JPN	33.9667	130.9833	0.46
Ube	JPN	33.9333	131.2000	0.46
Kawanoe	JPN	34.0167	133.5333	0.47

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Mishima-Kawanoe	JPN	34.0167	133.5667	0.47
Tokai	JPN	36.4500	140.5833	0.48
Nakaminato	JPN	36.3500	140.6333	0.48
Oppama	JPN	35.5667	135.2500	0.48
Kikuma	JPN	34.0333	132.8333	0.48
Kinoe	JPN	34.2167	132.9000	0.48
Namikata	JPN	34.1167	132.9667	0.48
Yutaka	JPN	34.1667	132.8333	0.48
Onishi	JPN	34.0500	132.9167	0.48
Hashihama	JPN	34.1000	132.9667	0.48
Uchiura	JPN	35.5333	135.5000	0.48
Takahama	JPN	35.5000	135.5333	0.48
Niihama	JPN	33.9833	133.2833	0.49
Tsuna	JPN	34.4167	134.9000	0.49
Sumoto	JPN	34.3333	134.8833	0.49
Yoshiumi	JPN	34.1333	133.0333	0.49
Kinoura	JPN	34.2000	133.1333	0.49
Imabari	JPN	34.0667	133.0167	0.49
Saga	JPN	34.0667	133.0833	0.49
Nandan	JPN	34.2333	134.7000	0.50
Makurazaki	JPN	31.2667	130.3000	0.52
Kiire	JPN	31.3833	130.5500	0.53
Aburatsu	JPN	31.5667	131.4000	0.56
Nango	JPN	31.5167	131.3667	0.56
Shibushi	JPN	31.4667	131.1167	0.56
Uchinomi	JPN	34.4667	134.3167	0.57
Kushimoto	JPN	33.4667	135.7833	0.60
Katsuura	JPN	33.6167	135.9500	0.60
Himekawa	JPN	37.0333	137.8500	0.60
Nanao	JPN	37.1000	137.0333	0.60
Kushikino	JPN	31.7500	130.2667	0.61
Miyazaki	JPN	31.8833	131.4500	0.61
Toyama	JPN	36.7500	137.2333	0.62
Toyama Shinko	JPN	36.8000	137.0833	0.62
Fushiki	JPN	36.7833	137.0500	0.62
Fushiki-Toyama	JPN	36.7667	137.0833	0.62
Naoshima	JPN	34.4500	134.0000	0.62
Honura	JPN	34.4500	134.0000	0.62
Takamatsu	JPN	34.3500	134.0500	0.62
Esaki	JPN	34.6500	131.6500	0.63
Niigata-Higashi	JPN	38.0000	139.2333	0.65
Komenotsu	JPN	32.1000	130.3333	0.65
Ebisu	JPN	38.0833	139.4333	0.65
Takuma	JPN	34.2500	133.7000	0.66
Nobeoka	JPN	32.5833	131.7167	0.67
Usuki	JPN	33.1333	131.8167	0.68
Tsukumi	JPN	33.0833	131.8667	0.68
Nagasu	JPN	33.5833	131.3667	0.69
Sakito	JPN	33.0167	129.5500	0.69
Sukumo	JPN	32.9167	132.7167	0.70
Ishima	JPN	34.6667	134.5000	0.70

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Taura	JPN	35.3000	139.6333	0.71
Tanabe	JPN	33.7167	135.3500	0.71
Arari	JPN	34.8167	138.7500	0.72
Hamaoka	JPN	34.6333	138.1333	0.72
Kurihama	JPN	35.2167	139.7333	0.72
Yokosuka	JPN	35.2833	139.6833	0.72
Tateyama	JPN	35.0000	139.8667	0.73
Urado	JPN	33.5000	133.5833	0.73
Hososhima	JPN	32.4500	131.6667	0.73
Tachibana	JPN	33.8833	134.7167	0.74
Yura	JPN	33.9500	135.1000	0.74
Usunoura	JPN	33.2000	129.5833	0.75
Ainoura	JPN	33.1833	129.6500	0.75
Oshima	JPN	33.4667	129.5333	0.75
Matsuura	JPN	33.3500	129.7333	0.75
Saganoseki	JPN	33.2500	131.8667	0.76
Seki Saki	JPN	33.2667	131.9000	0.76
Shodoshima	JPN	34.5000	134.2500	0.76
Saiki	JPN	32.9667	131.9167	0.77
Tagonoura	JPN	35.1333	138.7000	0.77
Numazu	JPN	35.1333	138.8333	0.77
Hinase	JPN	34.7167	134.2500	0.78
Karatsu	JPN	33.4667	129.9667	0.78
Anan	JPN	33.9000	134.6667	0.78
Choshi	JPN	35.7333	140.6833	0.79
Beppu	JPN	33.3000	131.5167	0.81
Shirashima	JPN	34.0167	130.7333	0.81
Gamagori	JPN	34.8000	137.2167	0.81
Mikawa	JPN	34.7667	137.2667	0.81
Susaki	JPN	33.3833	133.3000	0.82
Tsukama	JPN	35.0000	138.5167	0.82
Kisarazu	JPN	35.3667	139.8833	0.83
Kannoura	JPN	33.5833	134.3000	0.83
Kobe	JPN	34.6667	135.2167	0.84
Owase	JPN	34.0667	136.2167	0.84
Onoda	JPN	34.0000	131.1833	0.84
Miyanoura	JPN	30.4333	130.5833	0.84
Kamo	JPN	34.8500	138.7833	0.85
Kashima	JPN	35.9333	140.7000	0.85
Shimizu	JPN	35.0167	138.5333	0.85
Osaka	JPN	34.6500	135.4000	0.85
Sakai	JPN	34.5667	135.4000	0.85
Kunisaki	JPN	33.5833	131.7167	0.85
Honai	JPN	33.4667	132.3833	0.86
Yawatahama	JPN	33.4500	132.4000	0.86
Hikari	JPN	33.9500	131.9333	0.87
Kasado	JPN	33.9500	131.7833	0.87
Handa	JPN	34.8833	136.9333	0.87
Kinuura	JPN	34.8667	136.9500	0.87
Nakajima	JPN	33.9000	132.7333	0.87
Hojo	JPN	33.9667	132.7667	0.87

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Izumisano	JPN	34.3833	135.3000	0.88
Hamada	JPN	34.8833	132.0333	0.88
Yanai	JPN	33.9500	132.1333	0.88
Hirao	JPN	33.9000	132.0500	0.88
Amagasaki	JPN	34.6833	135.3833	0.88
Nishinomiya	JPN	34.7167	135.3500	0.88
Chita	JPN	34.9833	136.8500	0.89
Etajima	JPN	34.2333	132.4667	0.89
Hiroshima	JPN	34.3333	132.4500	0.89
Senzaki	JPN	34.4000	131.2000	0.89
Yoshida	JPN	33.2667	132.5333	0.89
Uwajima	JPN	33.2167	132.5500	0.89
Marugame	JPN	34.3000	133.7833	0.89
Tadotsu	JPN	34.2833	133.7333	0.89
Kudamatsu	JPN	34.0000	131.8500	0.89
Hannan	JPN	34.4667	135.3500	0.90
Kishiwada	JPN	34.4667	135.3667	0.90
Nagoya	JPN	35.0500	136.8500	0.91
Toyo	JPN	33.9167	133.0667	0.92
Saijo	JPN	33.9167	133.1667	0.92
Takehara	JPN	34.3167	132.9167	0.92
Higashino	JPN	34.2500	132.9000	0.92
Osaki	JPN	34.2333	132.8667	0.92
Omishima	JPN	34.2500	133.0000	0.92
Sakaide	JPN	34.3333	133.8500	0.92
Awaji	JPN	34.5667	135.0000	0.92
Akashi	JPN	34.6500	135.0000	0.92
Mizushima	JPN	34.5000	133.7500	0.92
Ujina	JPN	34.3500	132.4667	0.93
Hiketa	JPN	34.2167	134.4000	0.93
Befu	JPN	34.7167	134.8500	0.93
Mega	JPN	34.7667	134.7000	0.94
Higashi-Harima	JPN	34.7167	134.8333	0.94
Kakogawa	JPN	34.7000	134.8333	0.94
Takasago	JPN	34.7333	134.8000	0.94
Uno	JPN	34.4833	133.9500	0.95
Hibi	JPN	34.4500	133.9333	0.95
Tamano	JPN	34.4833	133.9333	0.95
Hagi	JPN	34.4000	131.4000	0.95
Ajisu	JPN	34.0000	131.3667	0.95
Habu	JPN	34.2833	133.1833	0.95
Iwagi	JPN	34.2333	133.1333	0.95
Saizaki	JPN	34.3333	133.0333	0.95
Shigei	JPN	34.3333	133.1333	0.95
Setoda	JPN	34.3000	133.1000	0.95
Fukushima	JPN	41.4667	140.2667	0.96
Ushimado	JPN	34.6167	134.1667	0.96
Nagahama	JPN	33.6167	132.4833	0.97
Kure	JPN	34.2333	132.5500	0.97
Hiro	JPN	34.2167	132.6167	0.97
Mitsukoshima	JPN	34.1833	132.5167	0.97



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Aboshi	JPN	34.7667	134.6000	0.97
Himeji	JPN	34.7667	134.6333	0.97
Hirohata	JPN	34.7667	134.6167	0.97
Shikama	JPN	34.7833	134.6667	0.97
Otake	JPN	34.2000	132.2000	0.97
Akitsu	JPN	34.3167	132.8167	0.97
Nakanoseki	JPN	34.0000	131.5667	0.98
Tokuyama	JPN	34.0000	131.8000	0.98
Fukuyama	JPN	34.4333	133.4500	0.99
Kasaoka	JPN	34.5000	133.5000	0.99
Saitozaki	JPN	33.6333	130.3500	0.99
Fukuoka	JPN	33.6500	130.3500	0.99
Mitajiri	JPN	34.0167	131.6000	0.99
Mukaishima	JPN	34.3833	133.2000	1.01
Onomichi	JPN	34.4000	133.1833	1.01
Numakuma	JPN	34.3667	133.3000	1.01
Tsuneishi	JPN	34.3667	133.2833	1.01
Matsunaga	JPN	34.4167	133.2500	1.01
Aioi	JPN	34.7667	134.4667	1.02
Ako	JPN	34.7333	134.3833	1.02
Kanazawa	JPN	36.6167	136.6000	1.02
Mihara	JPN	34.3833	133.1000	1.05
Itozaki	JPN	34.3833	133.1000	1.05
Hitachi	JPN	36.4833	140.6333	1.05
Naze	JPN	28.3833	129.5000	1.05
Hakata	JPN	33.6167	130.3833	1.05
Fukui	JPN	36.2167	136.1333	1.06
Niigata	JPN	37.9500	139.0667	1.13
Kashiwazaki	JPN	37.3667	138.5500	1.13
Heianza	JPN	26.3500	127.9500	1.16
Ishikawa	JPN	26.4167	127.8500	1.16
Wakamatsu	JPN	33.9167	130.8167	1.17
Naha	JPN	26.2167	127.6667	1.18
Iwojima	JPN	24.8000	141.3000	1.19
Tsuruga	JPN	35.6667	136.0833	1.22
Kuroshima	JPN	37.2667	136.7333	1.22
Soma	JPN	37.8333	140.9667	1.23
Maizuru	JPN	35.4833	135.3667	1.23
Hirara	JPN	25.8000	125.2833	1.24
Matsue	JPN	35.4833	133.0667	1.25
Yokohama	JPN	35.4500	139.6667	1.26
Hirono	JPN	37.2333	141.0167	1.29
Okuma	JPN	37.3833	140.9833	1.29
Tomioka	JPN	37.3333	141.0000	1.29
Haramichi	JPN	37.6333	140.9667	1.29
Jeju	KOR	33.5167	126.5500	0.28
Okpo	KOR	34.8833	128.7167	0.35
Onsan	KOR	35.4500	129.3667	0.40
Donghae	KOR	37.5136	129.1203	0.78
Samchok	KOR	37.4842	129.1239	0.78
Okke	KOR	37.5000	129.0833	0.78

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Mukho	KOR	37.5492	129.1086	0.78
Seogwipo	KOR	33.2333	126.5667	0.91
Busan	KOR	35.1000	129.0667	1.04
Suyong	KOR	35.1500	129.1500	1.04
Boryoung	KOR	35.3333	126.4667	1.07
Sokcho	KOR	38.2333	128.5500	1.12
Mokpo	KOR	34.7833	126.3833	1.13
Yosu	KOR	34.7500	127.7833	1.13
Wando	KOR	34.3667	126.6667	1.17
Mipo	KOR	35.5167	129.4333	1.17
Ulsan	KOR	35.4833	129.4000	1.18
Samil	KOR	34.8667	127.7833	1.18
Gwangyang	KOR	34.9000	127.7000	1.18
Hadong	KOR	34.9500	127.8167	1.18
Tongyong	KOR	34.8333	128.4167	1.18
Pohang	KOR	36.0333	129.4333	1.19
Samchonpo	KOR	34.9167	128.0667	1.19
Jinhae	KOR	35.1333	128.6500	1.23
Mina al Ahmadi	KWT	29.0667	48.1500	0.78
Mina Abdulla	KWT	29.0167	48.1667	0.78
Shuaiba	KWT	29.0333	48.1667	0.78
Doha(KWT)	KWT	29.3833	47.8000	0.81
Sea Island(KWT)	KWT	29.1167	48.2833	0.85
Kubbar Is.	KWT	29.0667	48.5667	0.88
Mina Saud	KWT	28.7500	48.4333	0.96
Amchite	LBN	34.1500	35.6167	0.23
Jbeil	LBN	34.1000	35.6333	0.23
Jounieh	LBN	33.9833	35.6500	0.23
Dbayeh	LBN	33.9333	35.5833	0.23
Beirut	LBN	33.9000	35.5167	0.23
Ouzai	LBN	33.8333	35.4833	0.28
Khalde	LBN	33.8000	35.4833	0.28
Tripoli(LBN)	LBN	34.4667	35.8333	0.32
Enfeh	LBN	34.3500	35.7333	0.32
Chekka	LBN	34.3333	35.7333	0.35
Selaata	LBN	34.2667	35.6500	0.55
Jieh	LBN	33.6667	35.4000	0.57
Sidon	LBN	33.5667	35.3667	0.57
Zahrani Term.	LBN	33.5333	35.3167	0.57
Sour	LBN	33.2667	35.2000	0.57
Naqura	LBN	33.1167	35.1333	0.60
Mellitah	LBY	32.8833	12.2500	0.17
Az Zawiyah	LBY	32.8167	12.7167	0.17
Ras el Hilal	LBY	32.9167	22.1833	0.18
Abu Kammash	LBY	33.0667	11.8167	0.19
Derna	LBY	32.7667	22.6500	0.28
Ras Lanuf	LBY	30.5167	18.5667	0.30
Rasco Hbr.	LBY	30.5333	18.6000	0.30
Tobruk	LBY	32.0833	23.9833	0.35
Bardia	LBY	31.7500	25.1167	0.38
Khoms	LBY	32.6500	14.2667	0.39

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Sirte	LBY	31.2167	16.5833	0.40
Misurata	LBY	32.3667	15.2333	0.40
Benghazi	LBY	32.1167	20.0500	0.42
Zueitina Term.	LBY	30.8500	20.0500	0.45
Zuara	LBY	32.9167	12.1167	0.46
Ras el Mungar	LBY	31.1833	20.1000	0.46
Marsa el Brega	LBY	30.4167	19.5833	0.48
Tripoli(LBY)	LBY	32.9000	13.1833	0.51
Jorf Lasfar	MAR	33.1167	-8.6333	0.20
Safi	MAR	32.3000	-9.2500	0.22
Mohammedia	MAR	33.7167	-7.3667	0.29
Larache	MAR	35.2000	-6.1500	0.31
Nador	MAR	35.2667	-2.9167	0.40
Agadir	MAR	30.4167	-9.6333	0.46
El Jadida	MAR	33.2667	-8.5167	0.52
Sidi Ifni	MAR	29.3667	-10.2000	0.53
Al Hoceima	MAR	35.2500	-3.9000	0.57
Casablanca	MAR	33.6167	-7.6000	0.60
Rabat	MAR	34.0333	-6.8333	0.62
Mehdia	MAR	34.3000	-6.6500	0.62
Tarfaya	MAR	27.9333	-12.9333	0.66
Tan Tan	MAR	28.5000	-11.3500	0.73
Tangier	MAR	35.7833	-5.8000	0.85
Essaouira	MAR	31.5000	-9.7833	1.19
Monte Carlo	MCO	43.7333	7.4167	1.02
Mananjary	MDG	-21.2333	48.3500	1.02
Toamasina	MDG	-18.1500	49.4167	1.15
Toliary	MDG	-23.3667	43.6667	1.20
Maroantsetra	MDG	-15.4333	49.7333	1.20
Tolagnaro	MDG	-25.0333	47.0000	1.21
Morondava	MDG	-20.2833	44.2667	1.26
Ensenada(MEX)	MEX	31.8500	-116.6333	0.58
Loreto	MEX	26.0167	-111.3500	0.58
Mulege	MEX	26.8833	-111.9500	0.59
El Sauzal	MEX	31.8833	-116.6833	0.67
San Juan de la Costa	MEX	24.4000	-110.4000	0.81
Pichilingue	MEX	24.3000	-110.3000	0.81
La Paz(MEX)	MEX	24.1667	-110.3167	0.82
Morro Redondo	MEX	28.0500	-115.1833	0.98
Puerto Libertad	MEX	29.9000	-112.6833	0.99
San Carlos(Sonora)	MEX	27.9500	-111.0333	1.00
Los Barriles	MEX	23.6833	-109.6833	1.02
Venustiano Carranza	MEX	28.0333	-114.1167	1.03
Cabo San Lucas	MEX	22.8333	-109.9167	1.03
Santa Rosalia	MEX	27.3333	-112.2667	1.08
Puerto Penasco	MEX	31.3000	-113.5333	1.11
San Marcos Is.	MEX	27.1833	-112.1000	1.13
Guaymas	MEX	27.9000	-110.8667	1.13
Mazatlan	MEX	23.1833	-106.4333	1.18
Altamira	MEX	22.4833	-97.8833	1.19
Yavaros	MEX	26.7000	-109.5167	1.20

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Progreso	MEX	21.2833	-89.6667	1.25
Yukalpeten	MEX	21.2833	-89.7167	1.25
Puerto Vallarta	MEX	20.6167	-105.2667	1.25
Telchac	MEX	21.3167	-89.2500	1.25
Dzilam	MEX	21.4167	-88.8333	1.26
San Blas	MEX	21.5333	-105.3167	1.28
Tecolutla	MEX	20.4667	-97.0000	1.29
Gozo Is.	MLT	36.0667	14.2167	0.16
Mgarr	MLT	36.0167	14.3000	0.16
St. Paul's Bay	MLT	35.9500	14.4000	0.16
Valletta	MLT	35.9000	14.5167	0.17
Marsaxlokk	MLT	35.8167	14.5667	0.17
Maputo	MOZ	-25.9833	32.6000	0.98
Ponta Dobela	MOZ	-26.5167	32.9167	1.09
Inhambane	MOZ	-23.8667	35.3833	1.11
Beira	MOZ	-19.8333	34.8333	1.20
Nouakchott	MRT	18.0333	-16.0333	0.30
Port de L'Amitie	MRT	18.0000	-16.0333	0.30
Pointe des Mouettes	MRT	20.8333	-17.0333	0.77
Point Central	MRT	20.8167	-17.0333	0.77
Nouadhibou	MRT	20.9000	-17.0500	0.77
Cap Blanc	MRT	20.7667	-17.0500	0.77
Petrovac	MTG	42.2000	18.9167	0.25
Ulcinj	MTG	41.9167	19.2000	0.25
Bar	MTG	42.0833	19.0833	1.00
Herceg Novi	MTG	42.4500	18.5333	1.20
Budva	MTG	42.2833	18.8500	1.24
Zelenika	MTG	42.4500	18.5833	1.27
Port Louis	MUS	-20.1500	57.4833	1.02
Rodrigues Is.	MUS	-19.6833	63.4167	1.17
Oranjemund	NAM	-28.5667	16.3667	0.87
Walvis Bay	NAM	-22.9500	14.5000	0.89
Luderitz	NAM	-26.6333	15.1500	1.06
Poro(NCL)	NCL	-21.3000	165.7167	0.88
Noumea	NCL	-22.2833	166.4333	1.05
Poum	NCL	-20.2333	164.0000	1.16
Mount Maunganui	NZL	-37.6833	176.2333	0.77
Tauranga	NZL	-37.6500	176.1667	0.78
Whakatane	NZL	-37.9500	177.0000	0.84
Onehunga	NZL	-36.9333	174.7667	0.87
Auckland	NZL	-36.8500	174.8000	0.87
Gisborne	NZL	-38.6833	178.0333	1.03
Napier	NZL	-39.4833	176.9167	1.07
Wanganui	NZL	-39.9500	175.0000	1.28
Duqm	OMN	19.6833	57.7333	1.13
Masirah Is.	OMN	20.6833	58.8667	1.13
Pasni	PAK	25.2500	63.4667	1.27
Ancon	PER	-11.7833	-77.1833	0.47
La Pampilla	PER	-11.9333	-77.1833	0.47
Conchan	PER	-12.2500	-76.9333	0.49
Oquendo	PER	-11.9667	-77.1167	0.51

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Cerro Azul	PER	-13.0500	-76.5167	0.52
San Juan(PER)	PER	-15.3500	-75.1833	0.54
Negritos	PER	-4.6500	-81.3167	0.54
Talara	PER	-4.5667	-81.2833	0.54
General San Martin	PER	-13.8333	-76.2667	0.54
San Nicolas(PER)	PER	-15.2333	-75.2333	0.55
Huacho	PER	-11.1333	-77.6167	0.60
Cabo Blanco	PER	-4.2667	-81.2500	0.60
Los Organos	PER	-4.1667	-81.1333	0.60
Paramonga	PER	-10.7000	-77.8333	0.61
Supé	PER	-10.8333	-77.7333	0.61
Huarmey	PER	-10.0833	-78.1500	0.66
Chimbote	PER	-9.0833	-78.6333	0.68
Coisco	PER	-9.0167	-78.6167	0.68
Salaverry	PER	-8.2333	-79.0000	0.68
Atico	PER	-16.2167	-73.7167	0.70
Puerto Bayovar	PER	-5.7833	-81.0500	0.73
Chicama	PER	-7.7000	-79.4167	0.74
Mollendo	PER	-17.0167	-72.0333	0.78
Ilo	PER	-17.6333	-71.3500	0.78
Pacasmayo	PER	-7.4000	-79.6000	0.81
Matarani	PER	-16.9833	-72.1167	0.81
Chancay	PER	-11.6000	-77.2833	0.88
Eten	PER	-6.9333	-79.8667	0.89
Pimentel	PER	-6.8167	-79.9333	0.92
Punta Lobitos	PER	-4.4500	-81.2667	0.94
Zorritos	PER	-3.6667	-80.6500	0.97
Paita	PER	-5.0833	-81.1167	1.05
Callao	PER	-12.0500	-77.1500	1.06
Ponta Delgada(PMD)	PMD	32.8167	-17.0000	0.64
Porto Santo	PMD	33.0500	-16.3333	0.64
Madeira	PMD	32.6667	-16.9167	0.65
Funchal	PMD	32.6333	-16.9000	0.65
Penuelas	PRI	18.0019	-66.7508	1.15
Guayanilla	PRI	17.9833	-66.7500	1.23
Kosong(PRK)	PRK	38.6000	128.3500	1.13
Sesimbra	PRT	38.4333	9.1000	0.29
Setubal	PRT	38.5000	-8.9167	0.29
Faro	PRT	37.0167	-7.9167	0.30
Olhao	PRT	37.0167	-7.8333	0.30
Albufeira	PRT	37.0833	-8.2500	0.35
Lagos(PRT)	PRT	37.0833	-8.6667	0.50
Figueira da Foz	PRT	40.1500	-8.8667	0.52
Vila do Porto	PRT	36.9333	-25.1500	0.53
Flores Is.	PRT	39.5000	-31.2167	0.54
Corvo Is.	PRT	39.6667	-31.1167	0.54
Pico Is.	PRT	38.4667	-28.3000	0.56
Fayal	PRT	38.5833	-28.7000	0.56
Horta	PRT	38.5333	-28.6333	0.56
St. Michael's	PRT	37.7333	-25.6667	0.58
Ponta Delgada(AZO)	PRT	37.7333	-25.6667	0.58

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Velas	PRT	38.6667	-28.2167	0.58
San Jorge Is.	PRT	38.6667	-28.0500	0.58
Graciosa Is.	PRT	39.0500	-28.0500	0.61
Praia da Graciosa	PRT	39.0500	-27.9667	0.62
Terceira Is.	PRT	38.7167	-27.2167	0.62
Angra do Heroismo	PRT	38.6500	-27.2167	0.62
Praia da Vitoria	PRT	38.7333	-27.0500	0.63
Aveiro	PRT	40.6500	-8.7500	0.63
Canical	PRT	32.7333	-16.7333	0.65
Leixoes	PRT	41.1833	-8.7167	0.88
Portimao	PRT	37.1333	-8.5333	1.03
San Martinho	PRT	39.5167	-9.1500	1.22
Sines	PRT	37.9500	-8.8667	1.25
Peniche	PRT	39.3667	-9.3833	1.26
Cascais	PRT	38.6833	-9.4167	1.29
Pointe des Galets	REU	-20.9167	55.2833	1.25
Ras al Khafji	SAU	28.4167	48.5833	0.98
Ras as Saffaniya	SAU	28.0000	48.8000	1.05
Haql	SAU	29.3000	34.9500	1.05
Dhuba	SAU	27.5667	35.5500	1.20
Quarrayah	SAU	26.0333	50.1333	1.20
Al Khobar	SAU	26.2833	50.2167	1.23
Ras Tanura	SAU	26.6333	50.1667	1.26
Dammam	SAU	26.5000	50.2000	1.26
King Fahd Port(Jubail)	SAU	27.0833	49.6833	1.28
Sharmah	SAU	27.9333	35.2667	1.28
Jubail	SAU	27.0167	49.6500	1.28
Al Wajh	SAU	26.2167	36.4500	1.28
Carabane	SEN	12.5500	-16.7000	1.09
Jamestown(SHN)	SHN	-15.9167	-5.7167	0.81
Koper	SVN	45.5547	13.7414	0.98
Piran	SVN	45.5333	13.5667	1.05
Izola	SVN	45.5500	13.6667	1.05
Portoroz	SVN	45.5167	13.5833	1.05
Arwad Is.	SYR	34.8500	35.8500	0.28
Tartous	SYR	34.9000	35.8667	0.28
Lattakia	SYR	35.5167	35.7667	0.36
Borj Islam	SYR	35.6667	35.8000	0.36
Jeble	SYR	35.3500	35.9167	0.58
Banias	SYR	35.2333	35.9333	0.58
Nukualofa	TON	-21.1333	-175.1833	1.26
Sousse	TUN	35.8333	10.6500	0.12
Rades	TUN	36.8000	10.2333	0.12
La Goulette	TUN	36.8167	10.3000	0.12
Ras Dimasse	TUN	35.5833	11.0167	0.13
Kelibia	TUN	36.8333	11.0833	0.17
Cap Bon	TUN	37.0833	11.0500	0.18
Tabarka	TUN	36.9667	8.7667	0.22
Zarzis	TUN	33.5000	11.1167	0.26
Galita Is.	TUN	37.5333	8.9333	0.26
Sfax	TUN	34.7333	10.7667	0.28

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bizerta	TUN	37.2667	9.8833	0.28
Ajim	TUN	33.7167	10.7333	0.29
Gabes	TUN	33.9500	10.0667	0.33
La Skhira	TUN	34.2333	10.0667	0.39
Tunis	TUN	36.8000	10.2000	0.88
Mersin	TUR	36.8000	34.6333	0.39
Alanya	TUR	36.5333	32.0000	0.40
Yumurtalik	TUR	36.7667	35.7500	0.40
Gulluk	TUR	37.2500	27.6333	0.41
Sugozu	TUR	36.8667	35.9500	0.44
Ceyhan	TUR	36.8833	35.9333	0.44
Toros Gubre	TUR	36.9167	35.9833	0.44
Marmaris	TUR	36.8500	28.2667	0.45
Anamur	TUR	36.0167	32.8167	0.45
Fethiye	TUR	36.6333	29.1000	0.46
Gocek	TUR	36.7500	28.9833	0.47
Kusadasi	TUR	37.8667	27.2333	0.48
Finike	TUR	36.3000	30.1500	0.48
Bodrum	TUR	37.0333	27.4167	0.49
Aliaga	TUR	38.8000	26.9833	0.49
Izmir	TUR	38.4333	27.1333	0.53
Camalti	TUR	38.5000	26.8833	0.54
Tasucu	TUR	36.2333	33.9833	0.55
Gokceada	TUR	40.2000	25.9000	0.55
Nemrut Bay	TUR	38.7500	26.9167	0.55
Dikili	TUR	39.0833	26.8833	0.57
Antalya	TUR	36.8333	30.6167	0.58
Bozcaada	TUR	39.8333	26.0667	0.58
Kabatepe	TUR	40.2000	26.2000	0.59
Cesme	TUR	38.3167	26.3000	0.59
Ayvalik	TUR	39.3167	26.7167	0.61
Gokova	TUR	37.0500	28.3667	0.62
Iskenderun	TUR	36.6000	36.1667	0.70
Edremit	TUR	39.5833	26.9500	0.74
Akcay	TUR	39.5833	26.9000	0.74
Dortyol	TUR	36.8333	36.2333	0.75
Payas	TUR	36.7500	36.1833	0.75
Canakkale	TUR	40.1500	26.4167	0.82
Kepez	TUR	40.1058	26.3781	0.82
Kas	TUR	36.2000	29.6333	0.84
Karabiga	TUR	40.4000	27.3000	0.87
Icdas	TUR	40.4500	27.1333	0.89
Gelibolu	TUR	40.4167	26.6833	0.91
Izmit	TUR	40.7667	29.9167	1.01
Yenikoy	TUR	40.7333	29.9000	1.01
Haydarpasa	TUR	41.0000	29.0167	1.02
Maltepe	TUR	40.9000	29.1500	1.02
Darica	TUR	40.7500	29.3833	1.02
Gebze	TUR	40.7667	29.4333	1.02
Tuzla	TUR	40.8092	29.3481	1.02
Saraylar	TUR	40.6500	27.6667	1.04

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Pendik	TUR	40.9000	29.2500	1.05
Kartal	TUR	40.8833	29.1833	1.05
Karacabey	TUR	40.2333	28.3667	1.05
Edincik	TUR	40.3500	27.8667	1.07
Bandirma	TUR	40.3500	27.9667	1.07
Diliskelesi	TUR	40.7667	29.5333	1.09
Hereke	TUR	40.7000	29.6167	1.09
Tavsancil	TUR	40.7833	29.5833	1.09
Istanbul	TUR	41.0000	28.9667	1.09
Cekmece	TUR	40.9833	28.5500	1.09
Uskudar	TUR	41.0167	29.0167	1.10
Tekirdag	TUR	40.9500	27.5000	1.10
Mudanya	TUR	40.4500	28.8667	1.10
Gemlik	TUR	40.4333	29.1500	1.11
Yarimca	TUR	40.7333	29.7667	1.14
Tutunciftlik	TUR	40.7500	29.7833	1.14
Igsas	TUR	40.7500	29.7500	1.14
Zeytinburnu	TUR	40.7500	29.7667	1.14
Derince	TUR	40.7500	29.8167	1.14
Golcuk	TUR	40.7167	29.8000	1.14
Silivri	TUR	41.0500	28.2667	1.14
Yalova	TUR	40.6667	29.2500	1.16
Eregli(Sea of Marmara)	TUR	40.9667	27.9667	1.18
Erdek	TUR	40.4000	27.7833	1.20
Ambarli	TUR	40.9667	28.7000	1.28
Marport	TUR	40.9667	28.6667	1.28
Kumport	TUR	40.9667	28.6833	1.28
Jinmen Is.	TWN	24.4500	118.3833	0.40
Taipei	TWN	25.1667	121.3500	0.66
Tamsui	TWN	25.1667	121.4167	0.66
Taichung	TWN	24.2833	120.5000	0.87
Hualien	TWN	24.0000	121.6333	0.89
Tainan	TWN	23.1000	120.0833	0.98
Makung	TWN	23.5500	119.5500	1.00
An Ping	TWN	22.9833	120.1333	1.00
Kaohsiung	TWN	22.6167	120.2500	1.06
Hsinyuan	TWN	22.5333	120.4333	1.08
Shenao	TWN	25.1167	121.8167	1.23
Keelung	TWN	25.1500	121.7333	1.23
Midway Islands	UMI	28.2167	-177.3500	0.81
Punta del Este	URY	-34.9667	-54.9500	0.61
Maldonado	URY	-34.9500	-54.9500	0.61
Piriapolis	URY	-34.8667	-55.2667	0.63
Nueva Palmira	URY	-33.8833	-58.4167	0.66
Montevideo	URY	-34.9000	-56.2667	0.75
Colonia	URY	-34.4667	-57.8500	0.82
Juan Lacaze	URY	-34.4333	-57.4167	0.94
La Paloma	URY	-34.6500	-54.1500	1.16
Southport(USA)	USA	33.9167	-78.0000	0.33
Brunswick	USA	31.1333	-81.4833	0.36
Long Beach	USA	33.7500	-118.2167	0.39



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Wilmington(CA USA)	USA	33.7667	-118.2667	0.39
Beaufort	USA	32.4333	-80.6667	0.45
Port Royal(USA)	USA	32.3833	-80.7000	0.45
San Clemente	USA	33.4333	-117.6000	0.50
Morehead City	USA	34.7167	-76.7000	0.51
Fernandina	USA	30.6833	-81.4667	0.52
Kings Bay(USA)	USA	30.8167	-81.5167	0.52
El Segundo	USA	33.9000	-118.4500	0.52
Manteo	USA	35.9000	-75.5833	0.53
Wilmington(NC USA)	USA	34.2333	-77.9500	0.55
Houma	USA	29.5833	-90.7167	0.61
Lockport	USA	29.6667	-90.5667	0.62
Bourg	USA	29.5500	-90.6000	0.62
Dulac	USA	29.3833	-90.7000	0.62
Freeport(Texas)	USA	28.9333	-95.3000	0.63
Theodore	USA	30.5333	-88.1833	0.63
Chauvin	USA	29.4333	-90.5833	0.63
Mobile	USA	30.6833	-88.0500	0.63
Amelia	USA	29.6667	-91.1000	0.65
Patterson	USA	29.6667	-91.3333	0.65
Pass Christian	USA	30.3000	-89.2333	0.65
Moss Point	USA	30.4167	-88.5167	0.65
Pascagoula	USA	30.3500	-88.5667	0.65
Escatawpa	USA	30.4333	-88.5333	0.65
Morgan City	USA	29.7000	-91.2167	0.66
Lake Charles	USA	30.2167	-93.2500	0.66
Pierre Part	USA	29.9500	-91.1833	0.66
Sulphur	USA	30.2167	-93.4000	0.66
Ocean Springs	USA	30.3833	-88.8167	0.67
Jeanerette	USA	29.9000	-91.6667	0.67
Iberia(USA)	USA	30.0000	-91.8500	0.67
Larose	USA	29.5500	-90.3833	0.67
Cut Off	USA	29.5167	-90.3333	0.67
Galliano	USA	29.4333	-90.3000	0.68
Loreauville	USA	30.1333	-91.6333	0.68
Erath	USA	29.9500	-92.0167	0.68
Orange	USA	30.1000	-93.7333	0.68
Magpetco	USA	30.0333	-93.9833	0.68
Rockport(TX)	USA	28.0167	-97.0333	0.69
Biloxi	USA	30.4000	-88.9000	0.69
Port Arthur	USA	29.8667	-93.9167	0.69
Port Neches	USA	29.9833	-93.9333	0.69
Smith's Bluff	USA	30.0000	-93.9833	0.69
Lafitte	USA	29.6500	-90.1000	0.69
Beaumont	USA	30.0833	-94.1000	0.69
San Leon	USA	29.4833	-94.9167	0.69
Galveston	USA	29.3000	-94.8000	0.70
Texas City	USA	29.3667	-94.8833	0.70
Gulfport	USA	30.3500	-89.0833	0.70
Pearlington	USA	30.2333	-89.6000	0.71
Ingleside	USA	27.8333	-97.2333	0.71

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Aransas Pass	USA	27.8833	-97.1333	0.71
Harbor Is.	USA	27.8667	-97.0667	0.71
Port Aransas	USA	27.8333	-97.0667	0.71
Slidell	USA	30.2833	-89.8167	0.72
Madisonville	USA	30.4167	-90.1500	0.72
Bayport	USA	29.6167	-95.0167	0.73
Kemah	USA	29.5333	-95.0167	0.73
Ventura	USA	34.2667	-119.3000	0.78
Sabine	USA	29.7167	-93.8667	0.79
Marina del Rey	USA	33.9667	-118.4333	0.79
Apalachicola	USA	29.7167	-84.9833	0.81
Daytona Beach	USA	29.1833	-81.0167	0.82
St. Augustine	USA	29.8833	-81.3167	0.84
Cameron	USA	29.7833	-93.3167	0.85
Boca Grande(USA)	USA	26.7167	-82.2500	0.86
Pensacola	USA	30.4167	-87.2167	0.86
Michoud	USA	30.0000	-89.9167	0.90
Bienville	USA	30.2167	-89.5833	0.91
Estero Bay	USA	35.4000	-120.8833	0.93
Bayou La Batre	USA	30.4000	-88.2500	0.94
Coden	USA	30.3667	-88.2333	0.94
Fowl River	USA	30.4500	-88.1667	0.94
Clearwater	USA	27.9667	-82.7833	0.95
Largo	USA	27.9167	-82.7833	0.95
Avila	USA	35.1667	-120.7333	0.95
Port San Luis	USA	35.1667	-120.7500	0.95
South Pass	USA	29.0000	-89.1667	0.96
Port Eads	USA	29.0167	-89.1667	0.96
Lahaina	USA	20.8667	-156.6833	0.97
Carpinteria	USA	34.4333	-119.6167	0.97
Oceanside	USA	33.2000	-117.3833	0.97
Golden Meadow	USA	29.3667	-90.2667	0.98
South Louisiana	USA	30.1000	-90.4833	0.98
St. Petersburg(USA)	USA	27.7833	-82.6333	0.99
Port Isabel(USA)	USA	26.0667	-97.2000	1.00
Port Fourchon	USA	29.0833	-90.2167	1.00
Santa Barbara	USA	34.4000	-119.6833	1.01
Los Angeles	USA	33.7167	-118.2667	1.04
San Pedro(CA USA)	USA	33.7167	-118.2500	1.04
Newport Beach	USA	33.6167	-117.9167	1.05
Portsmouth(VA USA)	USA	36.8333	-76.2833	1.05
Chesapeake	USA	36.7833	-76.3000	1.05
Elwood	USA	34.4333	-119.8833	1.07
Norfolk(USA)	USA	36.8500	-76.3167	1.07
Port Hueneme	USA	34.1525	-119.2036	1.08
Newport News	USA	36.9667	-76.4167	1.09
Moss Landing	USA	36.8000	-121.7833	1.14
Port Allen(HI USA)	USA	21.9000	-159.6000	1.14
Morro Bay	USA	35.3667	-120.8500	1.15
Port Canaveral	USA	28.4167	-80.5833	1.17
Cape Canaveral	USA	28.4667	-80.5500	1.17

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kilauea	USA	22.2333	-159.4000	1.20
Honolulu	USA	21.3000	-157.8667	1.21
Kahului	USA	20.9000	-156.4667	1.21
Kaunakakai	USA	21.0833	-157.0333	1.23
San Diego	USA	32.7053	-117.1378	1.23
Barbers Point	USA	21.2667	-158.0833	1.23
Chula Vista	USA	32.6333	-117.0833	1.24
West Palm Beach	USA	26.7167	-80.0500	1.24
Lake Worth	USA	26.6167	-80.0500	1.26
Charleston	USA	32.7833	-79.9333	1.26
Nawiliwili	USA	21.9500	-159.3500	1.26
Gaviota	USA	34.4667	-120.2333	1.28
Kawaihae	USA	20.0333	-155.8333	1.28
Kailua Kona	USA	19.6333	-155.9833	1.28
La Guaira	VEN	10.6000	-66.9333	1.01
Hongay	VNM	20.9500	107.0500	0.85
Cai Lan	VNM	20.9667	107.0333	0.85
Cam Pha	VNM	21.0167	107.3667	0.93
Thanh Hoa	VNM	19.8167	105.8000	1.08
Nghi Son	VNM	19.3167	105.8000	1.11
Vung Ang	VNM	18.9167	106.4000	1.13
Dong Nai	VNM	18.0833	106.3167	1.17
Ngqura	ZAF	-33.7833	25.6833	0.41
Port Elizabeth	ZAF	-33.9667	25.6333	0.49
Bird Is.	ZAF	-33.8167	26.2833	0.50
Mossel Bay	ZAF	-34.1833	22.1667	0.61
East London	ZAF	-33.0333	27.9167	0.72
Simonstown	ZAF	-34.1833	18.4333	0.85
Durban	ZAF	-29.8667	31.0333	0.89
Richards Bay	ZAF	-28.8000	32.1000	0.92
Port Nolloth	ZAF	-29.2500	16.8667	1.11
Cape of Good Hope	ZAF	-34.3500	18.4667	1.24
Gaza		31.5000	34.4500	0.67

*Appendix I. List of global ports that have highest environmental similarity to Baie-Comeau. NIS originating from these ports have the highest potential for survival if introduced at Baie-Comeau.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Vienna	AUT	48.2167	16.3667	0.76
Korneuburg	AUT	48.3667	16.3333	0.81
Linz	AUT	48.3167	14.3000	0.97
Baku	AZE	40.3783	49.8489	1.11
Kwaadmechelen	BEL	51.1000	5.1500	1.17
Balen	BEL	51.1667	5.1667	1.17
Tessenderlo	BEL	51.0667	5.0833	1.17
Geel	BEL	51.1500	4.9667	1.17
Olen(BEL)	BEL	51.1500	4.8667	1.17
Humbeek	BEL	50.9667	4.3833	1.18
Haren(BEL)	BEL	50.9000	4.3833	1.18

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Grimbergen	BEL	50.9333	4.3667	1.18
Vilvoorde	BEL	50.9500	4.4167	1.18
Verbrande Brug	BEL	50.9500	4.3833	1.18
Marly	BEL	50.8833	4.3833	1.18
Hemiksem	BEL	51.1503	4.3358	1.18
Tisselt	BEL	51.0333	4.3667	1.18
Terhagen	BEL	51.0833	4.3833	1.18
Boom	BEL	51.0833	4.3667	1.18
Mechelen	BEL	51.0333	4.4667	1.18
Willebroek	BEL	51.0500	4.3500	1.18
Kapelle op den Bos	BEL	51.0167	4.3667	1.18
Rumst	BEL	51.0667	4.4167	1.18
Rupelmonde	BEL	51.1333	4.2833	1.19
Hingene	BEL	51.1167	4.2667	1.19
Wintham	BEL	51.1000	4.2833	1.19
Niel	BEL	51.1167	4.3333	1.19
Schelle	BEL	51.1333	4.3167	1.19
Hoboken	BEL	51.1667	4.3333	1.19
Kruikeke	BEL	51.1667	4.3167	1.19
Buggenhout	BEL	51.0167	4.2000	1.19
Temse	BEL	51.1333	4.2167	1.19
Tielrode	BEL	51.1167	4.2167	1.19
Puurs	BEL	51.0667	4.2667	1.19
Maasmechelen	BEL	50.9667	5.7000	1.19
Genk	BEL	50.9414	5.5019	1.19
Zutendaal	BEL	50.9167	5.5667	1.19
Lanaken	BEL	50.8833	5.6500	1.19
Lixhe	BEL	50.7333	5.7000	1.20
Dendermonde	BEL	51.0333	4.1167	1.20
Baasrode	BEL	51.0500	4.1667	1.20
Antwerp	BEL	51.2447	4.4114	1.20
Merksem	BEL	51.2333	4.4833	1.20
Schoten	BEL	51.2500	4.5000	1.20
Liege	BEL	50.6350	5.5700	1.20
Grobbendonk	BEL	51.2000	4.7500	1.20
Rieme	BEL	51.1667	3.7667	1.21
Sint-Kruis-Winkel	BEL	51.1500	3.8000	1.21
Terdonk	BEL	51.1500	3.7833	1.21
Langerbrugge	BEL	51.1167	3.7500	1.21
Wondelgem	BEL	51.0833	3.7167	1.21
Ghent	BEL	51.0881	3.7453	1.21
Ruisbroek	BEL	50.7833	4.2833	1.21
Brussels	BEL	50.8281	4.3153	1.21
Melle	BEL	51.0000	3.8000	1.21
Chatelineau	BEL	50.4167	4.5167	1.21
Lillo	BEL	51.3000	4.3000	1.21
Liefkenshoek	BEL	51.3000	4.2833	1.21
Doel	BEL	51.3167	4.2667	1.21
Kallo	BEL	51.2500	4.2833	1.21
Engis	BEL	50.5833	5.4000	1.22
Hermalle sous Huy	BEL	50.5500	5.3667	1.22

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Val St. Lambert	BEL	50.5667	5.4667	1.22
Nameche	BEL	50.4667	4.9833	1.22
Burcht	BEL	51.2000	4.3333	1.22
Zwyndrecht(BEL)	BEL	51.2167	4.3333	1.22
Zelzate	BEL	51.2000	3.8000	1.22
Ertvelde	BEL	51.2000	3.7833	1.22
Seilles	BEL	50.5000	5.0833	1.27
Rousse	BGR	43.8333	25.9667	0.52
Kozloduy	BGR	43.7833	23.7167	0.52
Silistra	BGR	44.1000	27.2500	0.55
Lom	BGR	43.8333	23.2000	0.56
Pelee Island	CAN	41.7500	-82.6667	0.30
Leamington	CAN	42.0500	-82.6167	0.32
Kingsville	CAN	42.0167	-82.7167	0.34
Amherstburg	CAN	42.1000	-83.0833	0.36
Wheatley	CAN	42.0833	-82.4333	0.43
Erieau	CAN	42.2500	-81.9333	0.44
Fort Erie	CAN	42.9333	-78.9500	0.46
Port Colborne	CAN	42.8667	-79.2500	0.49
Humberstone	CAN	42.9000	-79.2500	0.50
Thorold	CAN	43.0833	-79.1667	0.52
Port Maitland	CAN	42.8667	-79.5833	0.53
Welland	CAN	42.9667	-79.2167	0.56
Nanticoke	CAN	42.8167	-80.0667	0.57
Port Stanley(CAN)	CAN	42.6667	-81.2167	0.57
Windsor(CAN)	CAN	42.3167	-83.0500	0.58
Port Burwell	CAN	42.6333	-80.8000	0.58
Gananoque	CAN	44.3167	-76.1500	0.59
Port Dover	CAN	42.7833	-80.2000	0.60
Kingston(CAN)	CAN	44.2000	-76.5000	0.61
Cardinal	CAN	44.7833	-75.3333	0.62
Montreal	CAN	45.5000	-73.5500	0.63
Brockville	CAN	44.6000	-75.6333	0.65
Cornwall(CAN)	CAN	45.0167	-74.7167	0.66
Cote Ste-Catherine	CAN	45.4070	-73.5751	0.66
Bath(CAN)	CAN	44.1667	-76.7667	0.67
Picton(CAN)	CAN	44.0000	-77.1333	0.67
Prescott	CAN	44.7167	-75.5167	0.67
Valleyfield	CAN	45.2167	-74.0833	0.68
Pointe aux Trembles	CAN	45.6333	-73.4833	0.71
Port Weller	CAN	43.2333	-79.2167	0.72
Long Sault	CAN	45.0167	-74.9000	0.73
Corunna(CAN)	CAN	42.8833	-82.4500	0.74
Mooretown	CAN	42.8500	-82.4667	0.74
Morrisburg	CAN	44.9333	-75.1833	0.74
Belleville	CAN	44.1333	-77.3667	0.75
Ottawa	CAN	45.4000	-75.7000	0.75
Sombra	CAN	42.7000	-82.4667	0.75
Courtright	CAN	42.8000	-82.4500	0.75
Wallaceburg	CAN	42.6000	-82.4000	0.75
Port Dalhousie	CAN	43.2000	-79.2667	0.76

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Sarnia	CAN	42.9833	-82.4167	0.76
Sorel	CAN	46.0500	-73.1167	0.77
St. Catharines	CAN	43.1667	-79.2667	0.77
Colborne	CAN	44.0000	-77.8833	0.78
Lanoraie	CAN	45.9667	-73.1833	0.79
Contrecoeur	CAN	45.8833	-73.2000	0.79
Cobourg	CAN	43.9500	-78.1667	0.79
Burlington(ONT)	CAN	43.3167	-79.7500	0.81
Port Hope	CAN	43.9500	-78.2833	0.82
Tracy	CAN	46.0167	-73.1667	0.82
Clarkson	CAN	43.5000	-79.6000	0.87
Hamilton(CAN)	CAN	43.2333	-79.8500	0.88
Port McNicoll	CAN	44.7500	-79.8000	0.89
Bronte	CAN	43.4000	-79.7000	0.89
Oakville	CAN	43.4333	-79.6667	0.90
Bowmanville	CAN	43.9000	-78.6667	0.91
Little Current	CAN	45.9667	-81.9167	0.91
Collingwood	CAN	44.5000	-80.2333	0.92
Oshawa	CAN	43.8667	-78.8333	0.92
Three Rivers	CAN	46.3500	-72.5500	0.92
Goderich	CAN	43.7500	-81.7500	0.95
Becancour	CAN	46.4000	-72.3833	0.95
Midland	CAN	44.7500	-79.9333	0.95
Toronto	CAN	43.6333	-79.3833	0.96
Levis	CAN	46.8167	-71.1833	0.96
Québec City	CAN	46.8167	-71.2000	0.96
St. Romuald	CAN	46.7500	-71.2333	0.96
Port Credit	CAN	43.5500	-79.6000	0.97
Whitby(CAN)	CAN	43.8500	-78.9167	0.98
Parry Sound	CAN	45.3667	-80.0500	0.98
Fredericton	CAN	45.9500	-66.6500	0.99
Owen Sound	CAN	44.5833	-80.9500	1.00
St. Stephen(CAN)	CAN	45.2000	-67.2833	1.01
Batiscan	CAN	46.5167	-72.2333	1.02
Ste. Croix	CAN	46.6333	-71.7333	1.03
Lauzon	CAN	46.8167	-71.1500	1.05
Spragge	CAN	46.2167	-82.6667	1.09
Britt	CAN	45.7667	-80.5833	1.10
Grondines	CAN	46.7500	-72.0333	1.14
Chicoutimi	CAN	48.4333	-71.0833	1.16
Little Narrows	CAN	45.9833	-60.9833	1.16
Iona	CAN	45.9667	-60.8000	1.19
Killarney	CAN	45.9667	-81.5167	1.22
Sault Ste. Marie	CAN	46.5167	-84.3333	1.25
Tobermory(CAN)	CAN	45.2333	-81.6500	1.27
Bayside	CAN	45.1667	-67.1333	1.28
Meldrum Bay	CAN	45.9167	-83.1000	1.28
Baddeck	CAN	46.1000	-60.7333	1.29
Basle	CHE	47.5500	7.5667	0.98
Panjin	CHN	41.1167	122.0667	0.00
Dandong	CHN	40.1333	124.4000	0.53

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Panshi	CHN	42.9167	126.0333	0.65
Harbin	CHN	45.7333	126.6000	0.68
Binhai	CHN	34.0000	119.8333	0.79
Jiamusi	CHN	46.8000	130.3500	0.81
Yingkou	CHN	40.6833	122.2333	0.81
Fujin	CHN	47.2500	132.0167	0.82
Tongjiang	CHN	47.6333	132.5000	0.86
Huaian	CHN	33.5000	119.1333	0.89
Yancheng	CHN	33.3833	120.1167	0.93
Dongtai	CHN	32.8333	120.3000	0.94
Taizhou	CHN	32.4167	119.4167	1.00
Yangzhou	CHN	32.3667	119.3667	1.00
Nantong	CHN	32.0000	120.8167	1.01
Jingjiang	CHN	32.0167	120.3000	1.01
Zhangjiagang	CHN	31.9667	120.4000	1.01
Zhenjiang	CHN	32.2167	119.4072	1.02
Jiangyin	CHN	31.9167	120.2500	1.03
Gaogang	CHN	32.1167	119.8667	1.03
Taixing	CHN	32.1500	120.0000	1.03
Yizheng	CHN	32.2000	119.2000	1.03
Bengbu	CHN	32.9333	117.3500	1.03
Jiangpu	CHN	32.0333	118.6000	1.04
Huainan	CHN	32.6667	117.0000	1.06
Changshu	CHN	31.6333	120.7333	1.06
Nanjing	CHN	32.0500	118.7833	1.07
Wuxi	CHN	31.5833	120.3167	1.07
Ma'anshan	CHN	31.8167	118.5333	1.08
Dafeng	CHN	33.2000	120.4167	1.08
Sanbing	CHN	31.5333	117.7333	1.11
Suzhou	CHN	31.3000	120.6333	1.12
Tongling	CHN	30.9500	117.6667	1.12
Hefei	CHN	31.8500	117.2667	1.13
Wuhu	CHN	31.3333	118.3667	1.13
Xiangfan	CHN	32.0000	112.1333	1.13
Digang	CHN	31.1000	118.0000	1.16
Heihe	CHN	50.2333	127.4667	1.16
Songjiang	CHN	31.0000	121.2167	1.20
Chizhou	CHN	30.6500	117.4500	1.22
Anqing	CHN	30.5167	117.0333	1.24
Zhicheng	CHN	30.3167	111.5000	1.24
Jingzhou	CHN	30.3500	112.2000	1.24
Shashi	CHN	30.3167	112.2667	1.26
Hankou	CHN	30.5833	114.2833	1.26
Wuhan	CHN	30.5833	114.3167	1.26
Linhai	CHN	28.8500	121.1167	1.26
Fengjie	CHN	31.0333	109.5167	1.27
Yichang	CHN	30.7000	111.3000	1.29
Lanxi	CHN	30.3333	115.1167	1.29
Huangshi	CHN	30.2167	115.0833	1.29
Chvaletice	CZE	50.0167	15.4333	1.00
Usti nad Labem	CZE	50.6667	14.0333	1.06

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Karlsruhe	DEU	49.0500	8.3333	0.89
Speyer	DEU	49.3000	8.4333	0.90
Germersheim	DEU	49.2167	8.3833	0.90
Mannheim	DEU	49.4833	8.4667	0.92
Ludwigshafen am Rhein	DEU	49.4667	8.4500	0.92
Worms	DEU	49.6333	8.3500	0.94
Kehl	DEU	48.5833	7.8333	0.94
Gernsheim	DEU	49.7500	8.4667	0.96
Eisenhuttenstadt	DEU	52.1500	14.6167	0.96
Deggendorf	DEU	48.8333	12.9667	0.99
Berlin	DEU	52.5333	13.4167	1.00
Frankfurt	DEU	50.1167	8.6667	1.01
Mainz	DEU	50.0000	8.2833	1.02
Bingen	DEU	49.9500	7.9000	1.02
Aschaffenburg	DEU	49.9500	9.1667	1.03
Stuttgart	DEU	48.7833	9.2000	1.03
Neckarsteinach	DEU	49.4333	8.8000	1.05
Passau	DEU	48.5833	13.4667	1.05
Brandenburg	DEU	52.4000	12.5167	1.05
Nuremberg	DEU	49.4500	11.0500	1.05
Regensburg	DEU	49.0167	12.1167	1.06
Aken	DEU	51.8500	12.0333	1.07
Rosslau	DEU	51.9000	12.2667	1.07
Heringsdorf	DEU	53.9667	14.1667	1.09
Magdeburg	DEU	52.1333	11.6167	1.10
Bonn	DEU	50.7167	7.0833	1.10
Porz	DEU	50.8833	7.0500	1.10
Mulheim	DEU	50.9500	7.0500	1.10
Neuwied	DEU	50.4333	7.4833	1.10
Weissenthurm	DEU	50.4167	7.4833	1.10
Andernach	DEU	50.4167	7.3833	1.10
Cologne	DEU	50.9333	7.0000	1.11
Bendorf	DEU	50.4167	7.5833	1.11
Vallendar	DEU	50.4000	7.6167	1.11
Tangermunde	DEU	52.5667	11.9667	1.11
Havelberg	DEU	52.8333	12.0667	1.12
Dormagen	DEU	51.1000	6.9500	1.13
Remagen	DEU	50.5667	7.2167	1.13
Moselkern	DEU	50.1833	7.3667	1.13
Wesseling	DEU	50.8333	7.0000	1.13
Wurzburg	DEU	49.7833	9.9333	1.14
Monheim	DEU	51.1167	6.8167	1.14
Sturzelberg	DEU	51.1167	6.8000	1.14
Neuss/Dusseldorf	DEU	51.2000	6.7000	1.14
Neuss	DEU	51.2000	6.7000	1.14
Dusseldorf	DEU	51.2500	6.7667	1.14
Koblenz	DEU	50.3333	7.5833	1.14
Lahnstein	DEU	50.3000	7.6167	1.14
Erfstadt	DEU	50.8000	6.7500	1.15
Krefeld	DEU	51.3333	6.5667	1.17
Rheinhausen	DEU	51.4167	6.7333	1.17



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ruhrort	DEU	51.4500	6.7333	1.17
Duisburg	DEU	51.4333	6.7500	1.17
Homburg	DEU	51.4500	6.7167	1.17
Braunschweig	DEU	52.2500	10.5000	1.17
Leverkusen	DEU	51.0167	7.0333	1.18
Essen	DEU	51.4500	7.0167	1.18
Gelsenkirchen	DEU	51.5000	7.0833	1.18
Urdingen	DEU	51.3500	6.6667	1.18
Peine	DEU	52.3167	10.2167	1.19
Salzgitter	DEU	52.2167	10.3333	1.19
Brohl	DEU	50.4167	7.3000	1.19
Dortmund	DEU	51.5333	7.4500	1.19
Castrop Rauxel	DEU	51.5500	7.3000	1.20
Wesel	DEU	51.6500	6.6000	1.20
Anklam	DEU	53.8667	13.6833	1.20
Walsum	DEU	51.5333	6.6833	1.20
Orsoy	DEU	51.5333	6.6833	1.20
Minden	DEU	52.3000	8.9000	1.21
Nienburg	DEU	52.6333	9.2167	1.21
Leeseringen	DEU	52.5833	9.1333	1.21
Rinteln	DEU	52.2000	9.0833	1.22
Hoya	DEU	52.8000	9.1333	1.22
Lauenburg	DEU	53.3833	10.5500	1.23
Boizenburg	DEU	53.3833	10.7333	1.23
Berne(DEU)	DEU	53.1833	10.5000	1.23
Geesthacht	DEU	53.4333	10.3833	1.25
Hohenhorn	DEU	53.4667	10.3667	1.25
Osnabruck	DEU	52.2667	8.0333	1.26
Bodenwerder	DEU	51.9667	9.5000	1.26
Ibbenburen	DEU	52.2833	7.7333	1.26
Papenburg	DEU	53.0833	7.3833	1.26
Emmerich	DEU	51.8500	6.2500	1.26
Warnemunde	DEU	54.1833	12.0833	1.28
Leer	DEU	53.2167	7.4500	1.29
Lubmin	DEU	54.1167	13.6000	1.29
Vierow	DEU	54.1000	13.5667	1.29
Parnu	EST	58.3833	24.4833	1.27
Helsinki	FIN	60.1667	24.9500	1.29
Grigny	FRA	45.6167	4.7833	0.88
Lyon	FRA	45.7667	4.8333	0.88
Le Pouzin	FRA	44.7500	4.7500	0.89
Chalon-sur-Saone	FRA	46.7833	4.8333	0.91
Strasbourg	FRA	48.5667	7.7000	0.94
Villeneuve-le-Roi	FRA	48.7333	2.4000	1.09
Villeneuve-la-Garenne	FRA	48.9167	2.3000	1.12
Paris	FRA	48.8667	2.3333	1.12
Arles	FRA	43.6833	4.6333	1.12
Conflans	FRA	48.9833	2.1000	1.15
Libourne	FRA	44.9167	-0.2333	1.15
Izon	FRA	44.9500	-0.3667	1.16
Salin de Giraud	FRA	43.4000	4.7333	1.16

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bassens	FRA	44.9000	-0.5333	1.17
Ambes	FRA	45.0333	-0.6000	1.18
Bordeaux	FRA	44.8333	-0.5667	1.18
Ingrandes	FRA	47.4000	-0.9167	1.18
Blaye	FRA	45.1167	-0.6667	1.19
St. Louis du Rhone	FRA	43.3833	4.8167	1.19
Pauillac	FRA	45.2000	-0.7500	1.19
Limay(FRA)	FRA	48.9667	1.7833	1.20
Mantes	FRA	48.9833	1.7167	1.20
Fontenay le Comte	FRA	46.4667	-0.7833	1.20
Nantes	FRA	47.2333	-1.5667	1.20
Nort-sur-Erdre	FRA	47.4333	-1.5000	1.21
Bonnières	FRA	49.0333	1.5833	1.22
Vernon	FRA	49.0833	1.4833	1.24
Cordemais	FRA	47.2667	-1.8833	1.25
Lille(FRA)	FRA	50.6500	3.0833	1.26
Lille	FRA	50.6500	3.0833	1.26
Gaillon	FRA	49.1667	1.3167	1.26
Annay sous Lens	FRA	50.4667	2.8667	1.27
Les Andelys	FRA	49.2500	1.4333	1.27
Elbeuf	FRA	49.2833	1.1167	1.29
Surgeres	FRA	46.1000	-0.7333	1.29
Redon	FRA	47.6500	-2.0667	1.29
Stylis	GRC	38.9000	22.6167	1.06
Ayia Marina(Greece)	GRC	38.8833	22.5833	1.06
Tragana	GRC	38.6667	23.1000	1.19
Aghios Konstantinos	GRC	38.7500	22.8667	1.24
Metkovic	HRV	43.0500	17.6500	1.12
Budapest	HUN	47.5000	19.0333	0.63
Cremona	ITA	45.1333	10.0167	0.67
Boretto	ITA	44.9000	10.5500	0.69
Pavia	ITA	45.1833	9.1333	0.73
Adria	ITA	45.0500	12.0667	0.77
Donada	ITA	45.0500	12.2167	0.79
San Dona di Piave	ITA	45.6333	12.5500	0.92
Casale sul Sile	ITA	45.6000	12.3167	0.96
Torviscosa	ITA	45.8333	13.2833	1.04
Limite	ITA	43.7167	10.9500	1.05
Porto Nogaro	ITA	45.8167	13.2333	1.08
Rome	ITA	41.9000	12.5000	1.28
Shimabara	JPN	32.8000	130.3333	1.09
Hitachinaka	JPN	36.4167	140.4167	1.13
Goi	JPN	35.5000	140.1000	1.18
Tsuiyama	JPN	35.6333	134.8167	1.24
Sagamihara	JPN	35.5667	139.3667	1.25
Suminoye	JPN	33.1833	130.2333	1.25
Funabashi	JPN	35.6667	139.9667	1.26
Kajiki	JPN	31.7167	130.6500	1.27
Yokoshima	JPN	32.8500	130.5333	1.27
Omuta	JPN	33.0333	130.4333	1.29
Aktau	KAZ	44.4167	50.1500	0.77

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Changwon	KOR	35.2167	128.6333	0.74
Kosong(KOR)	KOR	34.9667	128.3000	0.88
Masan	KOR	35.1833	128.6000	1.12
Klaipeda	LTU	55.7167	21.1333	1.28
Riga	LVA	56.9667	24.1000	1.26
Chisinau	MDA	47.0167	28.8333	0.56
Maasbracht	NLD	51.1333	5.8667	1.18
Bergambacht	NLD	51.9333	4.7833	1.19
Groot-Ammers	NLD	51.9167	4.8333	1.19
Ameide	NLD	51.9500	4.9500	1.19
Stein	NLD	50.9667	5.7667	1.19
Maastricht	NLD	50.8500	5.6833	1.19
Werkendam	NLD	51.8000	4.9000	1.19
Hardinxveld	NLD	51.8167	4.8500	1.19
Sliedrecht	NLD	51.8333	4.7500	1.19
Swalmen	NLD	51.2167	6.0167	1.20
Roermond	NLD	51.2000	5.9833	1.20
Rotterdam	NLD	51.9000	4.4833	1.21
Nieuwerkerk aan den Yssel	NLD	51.9667	4.5833	1.21
Lekkerkerk	NLD	51.9167	4.6333	1.21
Slikkerveer	NLD	51.8833	4.6000	1.21
Ridderkerk	NLD	51.8667	4.5833	1.21
Bolnes	NLD	51.9000	4.5667	1.21
Kinderdijk	NLD	51.8833	4.6333	1.21
Capelle aan den Yssel	NLD	51.9167	4.5667	1.21
Nieuw Lekkerland	NLD	51.8833	4.6333	1.21
Ouderkerk	NLD	51.9333	4.6000	1.21
Krimpen aan den Yssel	NLD	51.9000	4.5833	1.21
Alblasserdam	NLD	51.8667	4.6167	1.21
Dordrecht	NLD	51.8000	4.6500	1.21
Papendrecht	NLD	51.8333	4.6333	1.21
Heerjansdam	NLD	51.8333	4.5667	1.21
Zwijndrecht(NLD)	NLD	51.8167	4.6500	1.21
Hendrik Ido Ambacht	NLD	51.8500	4.6167	1.21
Venlo	NLD	51.3667	6.1667	1.21
Tegelen	NLD	51.3500	6.1333	1.21
'sGravendeel	NLD	51.7667	4.6000	1.22
St. Annaland	NLD	51.6167	4.1000	1.23
Sas van Ghent	NLD	51.2333	3.8000	1.23
Eindhoven	NLD	51.4333	5.5000	1.23
Aalst	NLD	51.3833	5.4500	1.23
Schiedam	NLD	51.9000	4.4000	1.23
Vlaardingen	NLD	51.9000	4.3500	1.23
Overschie	NLD	51.9333	4.4167	1.24
Maassluis	NLD	51.9167	4.2500	1.24
Wanssum	NLD	51.5333	6.0833	1.24
Maashees	NLD	51.5667	6.0333	1.24
Axel Sassing	NLD	51.2833	3.8667	1.25
Sluiskil	NLD	51.3000	3.8333	1.25
Tilburg	NLD	51.5500	5.0667	1.26
Oosterhout	NLD	51.6167	4.8667	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Millingen aan den Rijn	NLD	51.8667	6.0333	1.26
Lobith	NLD	51.8667	6.1333	1.26
Bruinisse	NLD	51.6667	4.1000	1.26
'sHertogenbosch	NLD	51.7000	5.3000	1.26
Dintelmond	NLD	51.6667	4.3833	1.27
Dinteloord	NLD	51.6333	4.3667	1.27
Heijen	NLD	51.6833	5.9833	1.27
Zuilichem	NLD	51.8000	5.1167	1.27
Zaltbommel	NLD	51.8000	5.2000	1.27
Oss	NLD	51.7667	5.5167	1.27
Grave	NLD	51.7500	5.7500	1.27
Nijmegen	NLD	51.8333	5.8333	1.27
Lithoyen	NLD	51.8167	5.4333	1.27
Heerewaarden	NLD	51.8167	5.3833	1.27
Heusden	NLD	51.7333	5.1500	1.27
Waalwijk	NLD	51.7000	5.0667	1.27
Rijswijk	NLD	51.7833	5.0167	1.27
Geertruidenberg	NLD	51.7167	4.8667	1.27
Raamsdonksveer	NLD	51.7000	4.9167	1.27
Fijnaart	NLD	51.6333	4.4833	1.27
Culemborg	NLD	51.9500	5.2167	1.27
Gorinchem	NLD	51.8167	4.9833	1.28
Huissen	NLD	51.9167	5.9167	1.28
Arnhem	NLD	51.9667	5.8833	1.28
Gendt	NLD	51.8667	5.9833	1.28
Renkum	NLD	51.9667	5.7333	1.28
Made	NLD	51.6833	4.8000	1.28
Deest	NLD	51.8833	5.6667	1.28
Druten	NLD	51.8833	5.6167	1.28
Wageningen	NLD	51.9667	5.6667	1.28
Rhenen	NLD	51.9500	5.5667	1.28
Dodewaard	NLD	51.9000	5.6333	1.28
Tiel	NLD	51.8833	5.4500	1.28
Paal	NLD	51.3500	4.1167	1.28
Ooltgensplaat	NLD	51.6833	4.3333	1.29
Bergen-op-Zoom	NLD	51.5000	4.2667	1.29
Moerdijk	NLD	51.7000	4.6167	1.29
Oudewater	NLD	52.0333	4.8833	1.29
Den Bommel	NLD	51.7167	4.2833	1.29
Nowa Sol	POL	51.8000	15.7167	0.89
Plock	POL	52.5333	19.6667	0.94
Kolobrzeg	POL	54.1833	15.5667	0.96
Niechorze	POL	54.1000	15.0667	1.05
Kozle	POL	50.3167	18.1333	1.06
Wroclaw	POL	51.0833	17.0000	1.06
Police	POL	53.5500	14.6000	1.07
Stepnica	POL	53.6500	14.6333	1.07
Szczecin	POL	53.4167	14.5500	1.10
Darlowo	POL	54.4333	16.3833	1.12
Elblag	POL	54.1667	19.4000	1.18
Frombork	POL	54.3500	19.6667	1.25

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Pyongyang	PRK	39.0000	125.7500	0.16
Songnim	PRK	38.7333	125.6167	0.31
Nampo	PRK	38.7333	125.4167	0.83
Bucharest	ROM	44.4167	26.1167	0.50
Giurgiu	ROM	43.9000	25.9667	0.51
Galatz	ROM	45.4167	28.0833	0.52
Braila	ROM	45.2500	27.9833	0.52
Oltenitza	ROM	44.0333	26.5833	0.52
Calarasi	ROM	44.1833	27.3167	0.53
Tulcea	ROM	45.1667	28.8167	0.58
Turnu Severin	ROM	44.6333	22.6667	0.63
Bazias	ROM	44.8000	21.4000	0.70
Orsova	ROM	44.7000	22.3667	0.74
Sulina	ROM	45.1500	29.6500	1.22
Cernavoda	ROM	44.3500	28.0333	1.23
Luminitza	ROM	44.3500	28.6333	1.23
Agigea	ROM	44.0833	28.6167	1.27
Constantza	ROM	44.1667	28.6500	1.27
Akhtubinsk	RUS	48.3333	46.1667	0.16
Volzhskiy	RUS	48.8167	44.7333	0.18
Volgograd	RUS	48.7500	44.5000	0.25
Volgodonsk	RUS	47.5000	42.1167	0.26
Nikolayevskaya	RUS	47.6000	41.4833	0.27
Semikarakorsk	RUS	47.5500	41.1000	0.28
Konstantinovsk	RUS	47.5500	41.1000	0.28
Ust Donets	RUS	47.6667	40.9500	0.29
Bagaevskaya	RUS	47.3167	40.3833	0.29
Kalach-na-Donu	RUS	48.7167	43.4833	0.30
Kamyshin	RUS	50.0833	45.4000	0.36
Saratov	RUS	51.5000	45.9167	0.45
Tatyanka	RUS	45.9333	48.2833	0.49
Olya	RUS	45.7833	47.5333	0.52
Krasnyye Barrikady	RUS	46.2000	47.8500	0.53
Astrakhan	RUS	46.3667	48.0667	0.53
Balakovo	RUS	52.0667	47.7667	0.54
Taganrog	RUS	47.2000	38.9500	0.56
Rostov	RUS	47.1667	39.7000	0.56
Azov	RUS	47.1000	39.4333	0.57
Yeisk	RUS	46.7333	38.2667	0.58
Syzran	RUS	53.1667	48.4833	0.70
Samara	RUS	53.1667	50.1667	0.74
Tolyatti	RUS	53.5333	49.4000	0.79
Makhachkala	RUS	42.9833	47.5000	0.83
Kazan	RUS	55.7500	49.1667	0.94
Khabarovsk	RUS	48.5000	135.1667	0.96
Kavkaz	RUS	45.3333	36.6500	0.97
Zelenodolsk	RUS	55.8333	48.5000	0.98
Naberezhnyye Chelny	RUS	55.6833	52.3000	0.99
Nizhnekamsk	RUS	55.4167	51.8833	0.99
Sosnovka	RUS	56.2333	51.2833	1.02
Novocheboksarsk	RUS	56.1000	47.4833	1.02

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Navashino	RUS	55.5500	42.1833	1.02
Temryuk	RUS	45.2833	37.3667	1.02
Cheboksary	RUS	56.1333	47.2333	1.05
Gorokhovets	RUS	56.1833	42.7000	1.06
Balakhna	RUS	56.4833	43.6167	1.07
Nizhniy Novgorod	RUS	56.3333	44.0000	1.07
Chkalovsk	RUS	56.7500	43.2333	1.09
Kostroma	RUS	57.7667	40.9333	1.14
Yaroslavl	RUS	57.5667	39.8667	1.14
St. Petersburg	RUS	59.9333	30.3000	1.17
Kanonerskiy Is.	RUS	59.9000	30.2167	1.17
Kineshma	RUS	57.4500	42.1167	1.18
Svetlyy	RUS	54.6333	20.1500	1.20
Petrodvorets	RUS	59.8833	29.9167	1.20
Perm	RUS	58.0167	56.1667	1.21
Otradnoye	RUS	59.7667	30.8000	1.21
Kaliningrad	RUS	54.7167	20.5167	1.21
Tomsk	RUS	56.5000	85.0833	1.22
Rybinsk	RUS	58.0167	38.8667	1.22
Kirovsk	RUS	59.8667	30.9833	1.23
Shlisselburg	RUS	59.9333	31.1333	1.23
Novgorod	RUS	58.5000	31.3333	1.24
Derbent	RUS	42.0500	48.3000	1.24
Kronshtadt	RUS	60.0000	29.7667	1.24
Pionerskiy	RUS	54.9333	20.2000	1.24
Lomonosov	RUS	59.8333	29.8000	1.28
Krasnoyarsk	RUS	56.0833	92.7667	1.28
Novorossiysk	RUS	44.7333	37.7833	1.28
Anapa	RUS	44.8833	37.3000	1.28
Kladovo	SCG	44.6000	22.5500	0.63
Zrenjanin	SCG	45.3667	10.3833	0.64
Bezdam	SCG	45.8333	18.9333	0.66
Novi Becej	SCG	45.5833	20.1333	0.66
Apatin	SCG	45.6667	19.0000	0.67
Pancevo	SCG	44.8667	20.6667	0.69
Novi Sad	SCG	45.2667	19.8333	0.71
Belgrade	SCG	44.8000	20.4667	0.72
Mitrovica	SCG	42.9000	20.8667	1.00
Komarno	SVK	47.7667	18.0833	0.72
Bratislava	SVK	48.1500	17.1167	0.76
Stockholm	SWE	59.3167	18.0500	1.20
Loudden	SWE	59.3333	18.1333	1.20
Stocksund	SWE	59.3833	18.0500	1.21
Liljeholmsviken	SWE	59.3167	18.0000	1.21
Fittja	SWE	59.2333	17.8500	1.21
Vaxholm	SWE	59.3833	18.3333	1.24
Hasselby	SWE	59.3667	17.8167	1.25
Studsvik	SWE	58.7500	17.2833	1.29
Bekdash	TKM	41.5333	52.6000	1.25
Turkmenbashi	TKM	40.0167	53.0000	1.28
Zaporozhye	UKR	47.8333	35.1667	0.43

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Tyaginka	UKR	46.7500	33.0500	0.49
Dnepropetrovsk	UKR	48.4833	35.0000	0.50
Reni	UKR	45.4333	28.3000	0.52
Dneprodzerzhinsk	UKR	48.5000	34.6167	0.54
Kremenchug	UKR	49.0500	33.4167	0.64
Mariupol	UKR	47.0500	37.5000	0.67
Cherkassy	UKR	49.4333	32.0500	0.71
Berdiansk	UKR	46.7500	36.7833	0.72
Kiev	UKR	50.4167	30.5000	0.79
Kerch	UKR	45.3500	36.4667	1.00
Theodosia	UKR	45.0333	35.4000	1.08
Belgorod-Dnestrovskiy	UKR	46.1833	30.3500	1.13
Ilichevsk	UKR	46.3000	30.6500	1.14
Nikolayev	UKR	46.9667	31.9667	1.14
Odessa	UKR	46.4833	30.7500	1.14
Yuzhnyy	UKR	46.6000	31.0167	1.15
Kherson	UKR	46.6167	32.6000	1.17
Dneprobugskiy	UKR	46.7500	31.9167	1.17
Oktyabrsk	UKR	46.8333	31.9500	1.17
Ochakov	UKR	46.6000	31.5500	1.17
Kiliya	UKR	45.4333	29.2667	1.18
Izmail	UKR	45.3333	28.8500	1.18
Vilkovo	UKR	45.4000	29.6000	1.19
Skadovsk	UKR	46.1000	32.9167	1.28
Peoria	USA	40.6833	-89.5833	0.24
Mossville	USA	40.8000	-89.5667	0.24
Marblehead	USA	41.5333	-82.7167	0.29
Toledo(USA)	USA	41.7000	-83.4667	0.30
Lafayette	USA	40.4000	-86.8833	0.32
Sandusky	USA	41.4500	-82.7333	0.32
Monroe	USA	41.9167	-83.3333	0.33
Buchanan(USA)	USA	41.2000	-73.9167	0.35
Stony Point	USA	41.2333	-73.9667	0.36
Peekskill	USA	41.2500	-73.9167	0.37
Huron	USA	41.4000	-82.5833	0.37
Tomkins Cove	USA	41.2667	-73.9833	0.37
Lorain	USA	41.4667	-82.1667	0.39
Milton(USA)	USA	41.6000	-73.9500	0.39
Newburgh(USA)	USA	41.5000	-74.0833	0.40
Yonkers	USA	40.9500	-73.8333	0.41
Shippensburg	USA	40.0333	-77.5167	0.41
Wyandotte	USA	42.1833	-83.1500	0.42
Cleveland	USA	41.5167	-81.7167	0.43
Rensselaer	USA	42.6500	-73.7333	0.43
Albany(USA)	USA	42.6500	-73.7500	0.43
Troy	USA	42.7333	-73.6833	0.43
Fairport	USA	41.7667	-81.3167	0.44
Pittsburgh(PA USA)	USA	40.4333	-80.0000	0.44
Roseton	USA	41.5667	-74.0000	0.45
Grand River	USA	41.7333	-81.2833	0.45
Cementon	USA	42.1333	-73.9167	0.45

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ravena	USA	42.4667	-73.8000	0.45
Kingston(USA)	USA	41.8667	-73.9667	0.45
Poughkeepsie	USA	41.6833	-73.8833	0.46
Hyde Park(USA)	USA	41.7833	-73.9333	0.46
Coxsackie	USA	42.3333	-73.8000	0.47
Tonawanda	USA	43.0167	-78.8833	0.47
Buffalo	USA	42.8833	-78.8833	0.47
Trenton	USA	40.1833	-74.7500	0.48
Ashtabula	USA	41.9167	-80.8167	0.48
Alsen	USA	42.1833	-73.9167	0.48
Catskill	USA	42.2167	-73.8833	0.48
Conneaut	USA	41.9667	-80.5667	0.48
Tullytown	USA	40.1333	-74.8167	0.49
Erie	USA	42.1667	-80.0833	0.49
Wilmington(DE USA)	USA	39.7500	-75.5000	0.49
Point Pleasant	USA	38.8833	-82.1167	0.49
Beverly(USA)	USA	46.8167	-119.9167	0.49
Burlington(NJ USA)	USA	40.0833	-74.8500	0.50
Fairless Hills	USA	40.1667	-74.8833	0.50
Philadelphia	USA	39.9000	-75.1333	0.51
Pennsauken	USA	39.9667	-75.0333	0.51
Westville	USA	39.8667	-75.1333	0.51
Camden(NJ USA)	USA	39.9333	-75.1333	0.51
Delair	USA	40.0000	-75.0333	0.51
Gloucester(NJ USA)	USA	39.8833	-75.1333	0.51
Paulsboro	USA	39.8333	-75.2500	0.51
Eddystone	USA	39.8333	-75.3333	0.51
Chester(PA USA)	USA	39.8333	-75.3667	0.51
Marcus Hook	USA	39.8167	-75.4167	0.51
Claymont	USA	39.8000	-75.4333	0.51
Saginaw	USA	43.4500	-83.9167	0.52
Zilwaukee	USA	43.4667	-83.9167	0.52
Reedy Point	USA	39.5667	-75.5667	0.53
Delaware City	USA	39.5667	-75.5833	0.53
Salem(NJ USA)	USA	39.5667	-75.4667	0.53
Bay City	USA	43.5833	-83.8833	0.54
Essexville	USA	43.6000	-83.8333	0.55
Detroit	USA	42.3333	-83.0333	0.55
Allyns Point	USA	41.4333	-72.0667	0.56
Clayton	USA	44.2333	-76.0833	0.57
East St. Louis	USA	38.6167	-90.1833	0.58
St. Louis(MO USA)	USA	38.6667	-90.2500	0.58
Mount Vernon	USA	37.9167	-87.8833	0.59
Pasco	USA	46.2167	-119.0833	0.60
Buffington	USA	41.6333	-87.4167	0.61
Oswego	USA	43.4667	-76.5333	0.61
Indiana Hbr.	USA	41.6667	-87.5000	0.61
Tell City	USA	37.9500	-86.7667	0.62
Burns Hbr.	USA	41.6333	-87.1833	0.62
Louisville	USA	38.2333	-85.7667	0.62
Jeffersonville	USA	38.2667	-85.7500	0.62



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Umatilla	USA	45.9167	-119.3333	0.63
Gary Hbr.	USA	41.6000	-87.3500	0.63
Somerset(US)	USA	41.7833	-71.1333	0.65
Somerset(Mass)	USA	41.7833	-71.1333	0.65
New London	USA	41.4000	-72.1000	0.66
Chicago	USA	41.8333	-87.6333	0.66
Green Bay	USA	44.5167	-88.0000	0.66
Ogdensburg	USA	44.7000	-75.5000	0.67
Bath(USA)	USA	43.9000	-69.8167	0.68
Rochester(NY)	USA	43.2833	-77.6000	0.68
Wiscasset	USA	44.0000	-69.6667	0.68
Owensboro	USA	37.7500	-87.1000	0.68
Providence	USA	41.8000	-71.3833	0.69
St. Joseph	USA	42.0833	-86.5000	0.70
Waukegan	USA	42.3667	-87.8333	0.72
Quantico	USA	38.5167	-77.3000	0.72
Benton Hbr.	USA	42.1167	-86.4500	0.73
Alexandria(USA)	USA	38.8000	-77.0500	0.74
Waddington	USA	44.8500	-75.2000	0.74
St. Clair	USA	42.8167	-82.4667	0.75
Paducah	USA	37.0833	-88.6167	0.75
Cambridge	USA	38.5667	-76.0667	0.75
South Brewer	USA	44.7833	-68.7833	0.75
Bangor(USA)	USA	44.8000	-68.7833	0.75
Port Huron	USA	42.9833	-82.4333	0.75
Marysville	USA	42.9167	-82.4833	0.75
Marine City	USA	42.7167	-82.4833	0.75
Winterport	USA	44.6333	-68.8500	0.76
Bucksport	USA	44.5667	-68.8000	0.77
Richmond(VA USA)	USA	37.5333	-77.4333	0.80
Port Jefferson	USA	40.9500	-73.0667	0.81
South Haven	USA	42.4500	-86.2500	0.81
Racine	USA	42.7333	-87.8000	0.83
Kenosha	USA	42.5833	-87.8167	0.83
Groton	USA	41.3500	-72.0833	0.84
Warren(USA)	USA	41.7333	-71.3000	0.85
New York	USA	40.7000	-74.0167	0.86
Nashville	USA	36.1667	-86.8333	0.86
The Dalles	USA	45.5833	-121.1833	0.86
Holland(MI USA)	USA	42.7833	-86.2167	0.87
Hopewell	USA	37.3000	-77.2833	0.88
Grand Haven	USA	43.0667	-86.2500	0.88
Marinette	USA	45.1167	-87.6167	0.88
Annapolis	USA	38.9833	-76.4833	0.89
Ferrysburg	USA	43.0833	-86.2333	0.89
Menominee	USA	45.1333	-87.6167	0.90
Belfast(USA)	USA	44.4167	-69.0000	0.93
Milwaukee	USA	43.0500	-87.8667	0.94
Charlevoix	USA	45.3167	-85.2167	0.94
Muskegon	USA	43.1833	-86.2333	0.94
Hempstead Hbr.	USA	40.8333	-73.8500	0.96

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Harbor Beach	USA	43.8333	-82.6500	0.97
Catoosa	USA	36.1833	-95.7667	0.97
Escanaba	USA	45.7833	-87.0667	0.98
Baltimore	USA	39.2833	-76.5833	1.01
Alpena	USA	45.0500	-83.4333	1.03
Decatur	USA	34.6000	-86.9667	1.03
Port Washington	USA	43.3833	-87.8667	1.04
Fall River	USA	41.7000	-71.1667	1.05
North Kingstown	USA	41.5500	-71.4667	1.05
Muskogee	USA	35.7500	-95.3500	1.06
SearSPORT	USA	44.4500	-68.9167	1.08
Brevort	USA	46.0000	-85.0333	1.11
Mackinaw City	USA	45.7500	-84.7333	1.11
Cove Point	USA	38.3833	-76.3833	1.12
Vancouver(USA)	USA	45.6333	-122.6667	1.12
Portland(OR USA)	USA	45.5667	-122.7333	1.12
Willbridge	USA	45.5667	-122.7500	1.12
Boston(USA)	USA	42.3833	-71.0500	1.12
Troutdale	USA	45.5333	-122.3833	1.12
Cheboygan	USA	45.6667	-84.4667	1.12
Manitowoc	USA	44.1000	-87.6333	1.13
Ashland	USA	46.5833	-90.9000	1.14
Port Inland	USA	45.9667	-85.8667	1.14
Brayton Point	USA	41.7000	-71.2000	1.15
Rockport(MI)	USA	45.2000	-83.3833	1.16
Calcite	USA	45.4000	-83.7833	1.16
Castine	USA	44.3833	-68.8333	1.16
Ludington	USA	43.9667	-86.4500	1.17
Rogers City	USA	45.4000	-83.8333	1.17
Kewaunee	USA	44.4500	-87.5167	1.17
Stoneport	USA	45.2833	-83.4333	1.17
Sheboygan	USA	43.7500	-87.7000	1.18
Little Rock	USA	34.7500	-92.2833	1.19
Manistee	USA	44.2500	-86.3333	1.19
Memphis	USA	35.1500	-90.0500	1.21
Bristol(USA)	USA	41.6667	-71.2667	1.21
Port Dolomite	USA	45.9667	-84.2667	1.22
New Gretna	USA	39.5833	-74.4500	1.22
Rosedale	USA	33.8500	-91.0167	1.23
Pine Bluff	USA	34.2167	-92.0000	1.25
Bayfield	USA	46.8000	-90.8000	1.25
Olympia	USA	47.0500	-122.9000	1.26
Kalama	USA	46.0167	-122.8333	1.26
Yarmouth(USA)	USA	43.8000	-70.2000	1.28
Cedarville	USA	45.9833	-84.3500	1.29
Sacramento	USA	38.5333	-121.5000	1.29
Ontonagon	USA	46.8667	-89.3000	1.29
Columbus(MS USA)	USA	33.5000	-88.4167	1.29

*Appendix J. List of global ports that have highest environmental similarity to Lewisporte. NIS originating from these ports have the highest potential for survival if introduced at Lewisporte.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Camarones	ARG	-44.4500	-65.7000	1.14
Caleta Cordova	ARG	-45.7167	-67.3500	1.14
Mar del Plata	ARG	-38.0331	-57.5447	1.21
Necochea	ARG	-38.5753	-58.7214	1.24
Campana	ARG	-34.1567	-58.9664	0.78
Zarate	ARG	-34.0911	-59.0206	0.78
Atucha	ARG	-33.9569	-59.2511	0.77
Lima(ARG)	ARG	-33.9767	-59.1872	0.77
Puerto Madryn	ARG	-42.7386	-65.0472	1.14
Escobar	ARG	-34.3500	-58.7667	0.85
San Fernando(ARG)	ARG	-34.4500	-58.5333	0.82
Tigre	ARG	-34.4333	-58.5500	0.82
Buenos Aires	ARG	-34.5903	-58.3775	0.82
Punta Colorada	ARG	-41.7000	-65.0333	1.20
Puerto Rosales	ARG	-38.9167	-62.0667	1.22
Puerto Belgrano	ARG	-38.9000	-62.1000	1.22
San Antonio Este	ARG	-40.8169	-64.7519	1.25
Puerto Galvan	ARG	-38.7833	-62.3000	0.78
Bahia Blanca	ARG	-38.7372	-62.2897	0.54
Ensenada(ARG)	ARG	-34.8667	-57.9000	0.88
La Plata	ARG	-34.8725	-57.9069	0.88
Ibicuy	ARG	-33.7428	-59.1681	1.10
Port Huon	AUS	-43.1667	147.0000	1.09
Hobart	AUS	-42.8383	147.2894	1.08
Triabunna	AUS	-42.4500	147.9333	0.83
Macquarie Hbr.	AUS	-42.1667	145.3333	0.97
Georgetown(AUS)	AUS	-41.1000	146.8167	0.69
Margate(AUS)	AUS	-43.0333	147.2667	1.15
Bell Bay	AUS	-41.1333	146.8667	0.70
Inspection Head	AUS	-41.1500	146.8167	0.70
Port Welshpool	AUS	-38.7000	146.4500	0.73
Barry Beach	AUS	-38.7167	146.3833	0.73
Hastings(AUS)	AUS	-38.2953	145.2131	0.62
Point Wilson	AUS	-38.1000	144.5000	0.87
Adelaide	AUS	-34.8503	138.5669	0.88
Geelong	AUS	-38.1344	144.3492	1.14
Kincumber South	AUS	-33.4667	151.3667	0.88
Melbourne	AUS	-37.8311	144.9178	1.13
Botany Bay	AUS	-33.9653	151.2244	1.03
Port Augusta	AUS	-32.5000	137.7833	1.14
Sydney	AUS	-33.8575	151.2064	1.07
Newcastle(AUS)	AUS	-32.9053	151.7636	1.07
Hexham(AUS)	AUS	-32.8167	151.6667	1.11
Caboolture	AUS	-27.0833	152.9500	1.29
Baku	AZE	40.3783	49.8489	0.64
Bruges	BEL	51.2219	3.2208	0.76
Oostkamp	BEL	51.1500	3.2500	0.79

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Varna	BGR	43.2000	27.9167	0.36
Balchik	BGR	43.3833	28.1833	0.35
Lesport	BGR	43.1667	27.8167	0.31
Nessebar	BGR	42.6667	27.7333	0.14
Pomorie	BGR	42.5333	27.6500	0.27
Sozopol	BGR	42.4000	27.6833	0.32
Bourgas	BGR	42.5000	27.4833	0.29
Rio Grande(BRA)	BRA	-32.1667	-52.0833	0.69
Pelotas	BRA	-31.7500	-52.2500	1.10
Digby	CAN	44.6333	-65.7500	1.25
North Sydney	CAN	46.2000	-60.2500	1.29
Halifax	CAN	44.6333	-63.5500	1.21
St. Andrews(CAN)	CAN	45.0667	-67.0500	1.24
Hantsport	CAN	45.0667	-64.1667	1.19
Duncan Bay	CAN	50.0833	-125.2833	1.09
Powell River	CAN	49.8667	-124.5500	1.05
Hubbards	CAN	44.6333	-64.0667	1.20
Dartmouth(NS)	CAN	44.6667	-63.5833	1.16
Roberts Bank	CAN	49.0167	-123.1333	1.00
Richmond(CAN)	CAN	49.1500	-123.1667	0.93
Sechelt	CAN	49.4667	-123.7500	0.91
Fraser River Port	CAN	49.2000	-122.9167	0.85
Liverpool(NS)	CAN	44.0500	-64.7167	1.12
Vancouver(CAN)	CAN	49.2833	-123.1167	0.85
Isaac's Hbr.	CAN	45.1667	-61.6500	1.24
Corral	CHL	-39.8667	-73.4167	1.15
Valdivia	CHL	-39.8000	-73.2333	1.25
Concepcion	CHL	-36.8333	-73.0500	1.02
Bayuquan	CHN	40.2667	122.1000	1.06
Beiliang	CHN	38.9667	121.8000	1.09
Penglai	CHN	37.8167	120.7167	1.06
Zhuanghe	CHN	39.6833	122.9667	1.28
Yantai	CHN	37.5667	121.4333	1.14
Weihai	CHN	37.5000	122.1500	1.06
Shidao	CHN	36.8833	122.4667	0.99
Dalian	CHN	38.9167	121.6833	1.19
Shanhaiguan	CHN	39.9864	119.8292	1.24
Qinhuangdao	CHN	39.9000	119.6000	1.24
Longyan	CHN	37.4000	122.6167	1.01
Rongcheng	CHN	37.1500	122.4000	1.10
Zhangjiabu	CHN	37.0167	122.1833	0.70
Tangshan	CHN	39.2167	119.0167	0.96
Laizhou	CHN	37.4167	119.9500	1.15
Longkou	CHN	37.6833	120.3000	1.19
Lianyungang	CHN	34.7333	119.4500	1.13
Rizhao	CHN	35.4833	119.4833	1.20
Yingkou	CHN	40.6833	122.2333	1.06
Lanshan	CHN	35.0833	119.3500	1.13
Huanghua	CHN	38.3667	117.3333	0.90
Tanggu	CHN	39.0000	117.6500	0.89
Tianjin	CHN	39.1000	117.1667	0.90

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Qingdao	CHN	36.0833	120.3000	1.19
Huangdao	CHN	36.0500	120.2167	1.19
Qianwan	CHN	35.9833	120.1833	1.19
Shijiusuo	CHN	35.3833	119.5667	1.13
Xingang	CHN	38.9833	117.7500	0.91
Dandong	CHN	40.1333	124.4000	1.17
Chongming	CHN	31.6167	121.3667	0.88
Luojing	CHN	31.4500	121.3000	0.88
Dongying	CHN	37.4500	118.4667	0.97
Shanghai	CHN	31.2500	121.5000	0.92
Nanhui	CHN	31.0500	121.7500	0.99
Kunshan	CHN	31.3667	120.9333	1.18
Taicang	CHN	31.4500	121.0833	1.18
Chuansha	CHN	31.2000	121.6833	1.18
Jiaying	CHN	30.8500	120.8667	1.29
Fengxian	CHN	30.9167	121.4333	1.23
Caojing	CHN	30.7667	121.4000	1.28
Jinshan	CHN	30.7167	121.3167	1.25
Haimen	CHN	28.6833	121.4333	0.84
Dafeng	CHN	33.2000	120.4167	0.97
Yancheng	CHN	33.3833	120.1167	1.14
Huangyan	CHN	28.6333	121.2500	1.01
Ningbo	CHN	29.8667	121.5500	1.05
Jiaojiang	CHN	28.6500	121.4167	1.03
Wenzhou	CHN	28.0333	120.6500	1.22
Ningde	CHN	26.6500	119.5167	1.26
Otterndorf	DEU	53.8167	8.9000	1.21
Holmer Siel	DEU	54.5333	8.8667	1.26
Husum(DEU)	DEU	54.4833	9.0500	1.26
Friedrichstadt	DEU	54.3833	9.0833	1.23
Nordstrand	DEU	54.4833	8.9167	1.24
Tonning	DEU	54.3167	8.9500	1.20
Busum	DEU	54.1333	8.8667	1.18
Fischerhutte	DEU	54.1500	9.3667	1.14
Rendsburg	DEU	54.3167	9.6667	1.13
Schacht-Audorf	DEU	54.3000	9.7167	1.13
Hochdonn	DEU	54.0167	9.3000	1.13
Itzehoe	DEU	53.9333	9.5167	1.10
Bremerhaven	DEU	53.5500	8.5833	1.15
Wesermunde	DEU	53.5333	8.5833	1.15
Blexen	DEU	53.5333	8.5333	1.15
Einswarden	DEU	53.5167	8.5167	1.15
Burg	DEU	53.9833	9.2833	1.10
Ostermoor	DEU	53.9167	9.1833	1.10
Wewelsfleth	DEU	53.8500	9.4000	1.10
Beidenfleth	DEU	53.8667	9.4333	1.10
Brokdorf	DEU	53.8667	9.3333	1.10
Brunsbüttel	DEU	53.9000	9.1333	1.10
Neuenfelde	DEU	53.5000	9.8167	1.09
Harlesiel	DEU	53.6333	7.7500	1.23
Abbenfleth	DEU	53.6833	9.5000	1.08

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ruthenstrom	DEU	53.7333	9.4000	1.08
Krautsand	DEU	53.7667	9.3833	1.08
Elmshorn	DEU	53.7500	9.6500	1.08
Gluckstadt	DEU	53.7833	9.4167	1.08
Nordenham	DEU	53.4833	8.4833	1.13
Stade	DEU	53.6000	9.4833	1.08
Hemmoor	DEU	53.7000	9.1333	1.08
Schwarzenhutten	DEU	53.7000	9.1667	1.08
Neuhaus	DEU	53.8000	9.0333	1.08
Freiburg	DEU	53.8167	9.3000	1.08
Wischhafen	DEU	53.7833	9.3333	1.08
Hamburg	DEU	53.5500	9.9667	1.07
Schulau	DEU	53.5667	9.7000	1.07
Ganspe	DEU	53.2000	8.5500	1.12
Blumenthal	DEU	53.1833	8.5667	1.12
Farge	DEU	53.2000	8.5167	1.12
Butzfleth	DEU	53.6500	9.5167	1.07
Stadersand	DEU	53.6167	9.5333	1.07
Utersen	DEU	53.6667	9.6500	1.07
Bensersiel	DEU	53.6833	7.5833	1.24
Brake	DEU	53.3333	8.4833	1.12
Elsfleth	DEU	53.2333	8.4667	1.12
Bardenfleth	DEU	53.1500	8.5500	1.11
Lemwerder	DEU	53.1667	8.6000	1.11
Bremen	DEU	53.0833	8.7833	1.11
Oslebshausen	DEU	53.1333	8.7333	1.11
Oldenburg	DEU	53.1500	8.2333	1.10
Cuxhaven	DEU	53.8667	8.7000	1.02
Flensburg	DEU	54.8000	9.4333	1.12
Emden	DEU	53.3500	7.1833	0.98
Olpenitz	DEU	54.6500	9.9833	1.25
Gelting	DEU	54.7333	9.9000	1.02
Ditzum	DEU	53.3167	7.2667	0.91
Kappeln	DEU	54.6667	9.9333	1.03
Schleswig	DEU	54.5167	9.5667	1.08
Kiel	DEU	54.3167	10.1333	1.03
Eckernforde	DEU	54.4833	9.8500	1.02
Holtenua	DEU	54.3667	10.1500	1.02
Laboe	DEU	54.4000	10.2167	1.01
Puttgarden	DEU	54.5000	11.2333	1.02
Wismar	DEU	53.9000	11.4667	1.01
Lubeck	DEU	53.8667	10.6667	1.03
Neustadt	DEU	54.1000	10.8167	1.03
Travemunde	DEU	53.9667	10.9000	1.02
Schlutup	DEU	53.8833	10.7833	1.02
Oldersum	DEU	53.3167	7.3333	1.02
Westerende-Kirchloog	DEU	53.4333	7.4167	1.05
Ladebow	DEU	54.1000	13.4500	1.28
Greifswald	DEU	54.1000	13.3833	1.28
Stralsund	DEU	54.3167	13.1000	1.28
Lubmin	DEU	54.1167	13.6000	1.27

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Vierow	DEU	54.1000	13.5667	1.27
Rostock	DEU	54.1500	12.1000	1.24
Anklam	DEU	53.8667	13.6833	1.21
Warnemunde	DEU	54.1833	12.0833	1.20
Heringsdorf	DEU	53.9667	14.1667	1.14
Leer	DEU	53.2167	7.4500	1.28
Ringkobing	DNK	56.0833	8.2333	1.26
Mariager	DNK	56.6500	9.9833	1.23
Randers	DNK	56.4667	10.0500	1.23
Hobro	DNK	56.6333	9.8000	1.23
Hadsund	DNK	56.7167	10.1167	1.21
Kongsdal	DNK	56.6833	10.0667	1.21
Fredericia	DNK	55.5667	9.7500	1.28
Strib	DNK	55.5333	9.7667	1.28
Middelfart	DNK	55.5000	9.7333	1.28
Lyngs Odde	DNK	55.5167	9.7500	1.28
Vejle	DNK	55.7167	9.5500	1.24
Aarhus	DNK	56.1500	10.2167	1.18
Studstrup	DNK	56.2500	10.3500	1.18
Horsens	DNK	55.8500	9.8667	1.21
Aarosund	DNK	55.2667	9.7167	1.25
Haderslev	DNK	55.2500	9.5000	1.25
Lyngsbaek Bridge	DNK	56.2333	10.6167	1.18
Kolding	DNK	55.5000	9.5000	1.22
Skaerbaek	DNK	55.5167	9.6167	1.22
Hardeshoj	DNK	55.0000	9.6833	1.24
Enstedvaerkets Havn	DNK	55.0167	9.4333	1.18
Aabenraa	DNK	55.0333	9.4333	1.18
Snaptun	DNK	55.8167	10.0333	1.11
Graasten	DNK	54.9167	9.6167	1.12
Egernsund	DNK	54.9000	9.6000	1.12
Aeroskobing	DNK	54.8833	10.4167	1.27
Soby	DNK	54.9500	10.2667	1.27
Assens	DNK	55.2667	9.9000	1.12
Rudkobing	DNK	54.9333	10.7167	1.28
Marstal	DNK	54.8500	10.5167	1.28
Sonderborg	DNK	54.9167	9.7833	1.08
Katholm	DNK	54.9333	9.8333	1.08
Augustenborg	DNK	54.9500	9.8667	1.04
Bagenkop	DNK	54.7500	10.6667	1.29
Kalundborg	DNK	55.6833	11.0833	1.05
Asnaesvaerkets Havn	DNK	55.6667	11.0833	1.03
Odense	DNK	55.4167	10.3833	1.08
Holbaek	DNK	55.7167	11.7167	1.02
Lindo	DNK	55.4667	10.5333	1.07
Kerteminde	DNK	55.4500	10.6667	1.07
Karrebaeksminde	DNK	55.1667	11.6333	1.12
Frederikssund	DNK	55.8333	12.0500	0.99
Ostby	DNK	55.7333	12.0333	0.99
Faaborg	DNK	55.1000	10.2333	1.09
Frederiksvaerk	DNK	55.9667	12.0167	0.98

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Svendborg	DNK	55.0500	10.6167	1.08
Nykobing(Sjaelland)	DNK	55.9167	11.6833	1.01
Orehoved	DNK	54.9500	11.8500	1.08
Masnedsund	DNK	55.0000	11.9000	1.08
Vordingborg	DNK	55.0000	11.9000	1.08
Masnedo	DNK	55.0000	11.9000	1.08
Naestved	DNK	55.2333	11.7500	1.06
Guldborg	DNK	54.8667	11.7500	1.05
Sakskobing	DNK	54.8000	11.6333	1.04
Skaelskor	DNK	55.2500	11.2833	1.03
Stigsnaesvaerkets Havn	DNK	55.2167	11.2500	1.03
Gulfhavn	DNK	55.2000	11.2500	1.03
Bandholm	DNK	54.8333	11.5000	1.02
Nykobing(Falster)	DNK	54.7667	11.8667	1.06
Elsinore	DNK	56.0333	12.6167	1.04
Nakskov	DNK	54.8333	11.1333	1.01
Koge	DNK	55.4500	12.2000	1.03
Struer	DNK	56.5000	8.6000	1.23
Rodbyhavn	DNK	54.6500	11.3500	0.93
Ortigueira	ESP	43.6833	-7.8333	0.84
Bilbao	ESP	43.3106	-3.0286	0.68
Puente Ceso	ESP	43.2500	-8.9000	1.18
Cillero	ESP	43.6833	-7.6000	1.07
Pasajes	ESP	43.3333	-1.9333	1.29
San Sebastian(ESP)	ESP	43.3167	-1.9833	1.29
Requejada	ESP	43.3333	-4.0833	0.48
Vivero	ESP	43.6667	-7.6000	0.93
Camarinas	ESP	43.1167	-9.1833	1.01
Santa Eugenia de Riveira	ESP	42.5500	-8.9833	0.77
Muros	ESP	42.7500	-9.0167	0.76
Sada	ESP	43.3667	-8.2500	0.79
Caraminal	ESP	42.6000	-8.9333	0.69
Corcubion	ESP	42.9500	-9.1833	0.81
Cee	ESP	42.9500	-9.1667	0.81
Ferrol	ESP	43.4667	-8.2667	0.73
Astillero	ESP	43.4000	-3.8167	0.63
Guernica	ESP	43.3167	-2.6667	0.44
Fene	ESP	43.4667	-8.1667	0.67
Fuenterrabia	ESP	43.3667	-1.8000	0.47
Cangas	ESP	42.2667	-8.7667	0.52
Orio	ESP	43.2667	-2.1167	0.60
Beasain	ESP	43.0500	-2.1833	0.79
Marin	ESP	42.4000	-8.7000	0.56
Villagarcia	ESP	42.6000	-8.7667	0.58
Vigo	ESP	42.2333	-8.6667	0.61
Pontevedra	ESP	42.4167	-8.6500	0.96
San Javier	ESP	37.8000	-0.8333	1.01
San Fernando(ESP)	ESP	36.4667	-6.2000	1.16
Puerto de Santa Maria	ESP	36.6000	-6.2333	1.22
Puerto Real	ESP	36.5333	-6.1833	1.14
Huelva	ESP	37.2667	-6.9167	1.17



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bonanza	ESP	36.8000	-6.3333	1.14
Treguier	FRA	48.7833	-3.2333	1.21
Etaples	FRA	50.5167	1.6333	0.80
Lannion	FRA	48.7333	-3.4500	1.25
Paluden	FRA	48.5833	-4.5167	1.02
Brest	FRA	48.3833	-4.4833	0.89
Benodet	FRA	47.8833	-4.1167	0.77
St. Valery sur Somme	FRA	50.1833	1.6500	0.73
Quimper	FRA	47.9667	-4.1167	0.75
Saint Brevin	FRA	47.2500	-2.1500	1.25
Pontrieux	FRA	48.7000	-3.1667	0.76
St. Nazaire	FRA	47.2667	-2.2000	1.25
Keroman	FRA	47.7333	-3.3667	0.69
Sables d'Olonne	FRA	46.5000	-1.8000	1.22
Corniguel	FRA	47.9500	-4.1167	0.73
Hennebont	FRA	47.8000	-3.2667	0.64
Saint Maclou	FRA	49.3667	0.4167	0.81
Noyelles	FRA	50.1833	1.7167	0.90
Harfleur	FRA	49.5000	0.2000	1.24
La Rochelle	FRA	46.1500	-1.1500	1.16
Marennes	FRA	45.8167	-1.1000	1.24
Vannes	FRA	47.6500	-2.7500	0.56
Belz	FRA	47.6667	-3.1667	0.58
Caen	FRA	49.1833	-0.3500	0.87
La Pallice	FRA	46.1667	-1.2333	1.15
Lorient	FRA	47.7500	-3.3667	0.71
Arcachon	FRA	44.6667	-1.1667	0.59
La Teste	FRA	44.6167	-1.1500	0.62
Abbeville	FRA	50.1000	1.8500	1.06
Montoir	FRA	47.3333	-2.1333	0.58
Gujan-Mestras	FRA	44.6333	-1.0500	0.36
Le Verdon	FRA	45.5500	-1.0833	0.31
St. Jean de Luz	FRA	43.4000	-1.6667	1.28
Royan	FRA	45.6167	-1.0333	0.34
Landerneau	FRA	48.4333	-4.2500	1.12
Hendaye	FRA	43.3667	-1.7667	0.56
Marans	FRA	46.3167	-1.0333	0.45
Donges	FRA	47.3000	-2.0667	0.71
Rochefort	FRA	45.9333	-0.9667	0.47
Radicatel	FRA	49.4167	0.4833	1.25
Surgeres	FRA	46.1000	-0.7333	0.68
Tonnay Charente	FRA	45.9500	-0.8833	0.64
Paimboeuf	FRA	47.2833	-2.0333	0.95
Redon	FRA	47.6500	-2.0667	1.10
Fontenay le Comte	FRA	46.4667	-0.7833	0.90
Bayonne	FRA	43.5000	-1.4833	0.61
Cordemais	FRA	47.2667	-1.8833	1.13
Pauillac	FRA	45.2000	-0.7500	1.12
Blaye	FRA	45.1167	-0.6667	1.24
St. Louis du Rhone	FRA	43.3833	4.8167	0.95
Salin de Giraud	FRA	43.4000	4.7333	1.08

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Strangford	GBR	54.3833	-5.6000	1.22
Warrenpoint	GBR	54.1000	-6.2500	1.25
Killyleagh	GBR	54.4000	-5.6500	1.20
Belfast	GBR	54.6000	-5.9333	1.21
Charlestown(Scotland)	GBR	56.0333	-3.5000	1.28
Mistley	GBR	51.9500	1.0833	1.06
Rothesay	GBR	55.8333	-5.0500	1.24
Hunterston	GBR	55.7500	-4.8833	1.24
Lancaster	GBR	54.0000	-2.8500	1.03
Glasson Dock	GBR	54.0000	-2.8333	1.03
Cantley	GBR	52.5667	1.5333	0.93
Milford Haven	GBR	51.7128	-5.0617	1.09
Fairlie	GBR	55.7667	-4.8667	1.24
Garston	GBR	53.3500	-2.9000	0.98
Ipswich	GBR	52.0500	1.1667	0.89
Pembroke	GBR	51.6928	-4.9506	0.99
Hull	GBR	53.7500	-0.3000	0.94
Boston(GBR)	GBR	52.9667	-0.0167	0.94
Largs	GBR	55.8000	-4.8667	1.26
Bromborough	GBR	53.3500	-2.9833	0.96
Eastham	GBR	53.3500	-2.9667	0.96
Ellesmere Port	GBR	53.2833	-2.9000	0.92
Fingringhoe	GBR	51.8333	0.9667	0.82
Colchester	GBR	51.8833	0.9167	0.85
Fosdyke	GBR	52.8667	-0.0333	0.94
Burnham on Crouch	GBR	51.6167	0.8167	0.81
Liverpool	GBR	53.4167	-3.0000	0.99
Gweek	GBR	50.0833	-5.2000	1.00
Appledore	GBR	51.0500	-4.2000	0.93
Coryton	GBR	51.5167	0.5333	0.79
Otterham Quay	GBR	51.3833	0.6333	0.77
Rainham(Kent)	GBR	51.3833	0.6167	0.77
Penryn	GBR	50.1667	-5.1000	0.98
Gillingham	GBR	51.4833	0.5500	0.77
Shell Haven	GBR	51.5000	0.5167	0.77
Southampton	GBR	50.9000	-1.4000	0.80
Ince	GBR	53.2833	-2.8500	0.91
Stanlow	GBR	53.2833	-2.8667	0.91
Dumfries	GBR	55.0667	-3.6167	1.27
Creeksea	GBR	51.6167	0.7833	0.78
Sheerness	GBR	51.4333	0.7333	0.76
Cliffe	GBR	51.4833	0.4667	0.80
New Holland	GBR	53.7000	-0.3500	1.00
Barrow on Humber	GBR	53.6833	-0.3833	1.00
Maldon	GBR	51.7333	0.6667	0.83
Lydney	GBR	51.7167	-2.5333	0.93
Kirkcudbright	GBR	54.8333	-4.0500	1.24
Connah's Quay	GBR	53.2333	-3.0667	1.01
Totnes	GBR	50.4333	-3.6833	0.91
Bee Ness	GBR	51.4333	0.6500	0.75
Oakham Ness	GBR	51.4167	0.6500	0.75

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Queenborough	GBR	51.4167	0.7333	0.75
Newry	GBR	54.1833	-6.3333	1.23
Barton on Humber	GBR	53.7000	-0.4333	1.02
Hessle	GBR	53.7167	-0.4333	1.02
Bedhampton	GBR	50.8333	-1.0000	0.74
Kingsnorth	GBR	51.4167	0.6000	0.75
Isle of Grain	GBR	51.4333	0.7000	0.75
Thamesport	GBR	51.4333	0.7000	0.75
Norwich	GBR	52.6333	1.2833	0.95
Weston Church Wall	GBR	53.3167	-2.7500	1.01
Weston Point	GBR	53.3333	-2.7667	1.01
Yelland	GBR	51.0667	-4.1500	0.93
Longannet	GBR	56.0500	-3.6833	1.26
Grangemouth	GBR	56.0333	-3.6833	1.26
Rochford	GBR	51.5833	0.7333	0.77
Port Talbot	GBR	51.5833	-3.7167	1.00
King's Lynn	GBR	52.7500	0.4000	1.13
Gosport	GBR	50.8000	-1.1167	0.72
Portsmouth	GBR	50.8000	-1.1000	0.72
Hoo	GBR	51.4167	0.5667	0.78
Chatham	GBR	51.4000	0.5500	0.78
Fareham	GBR	50.8500	-1.1833	0.78
Shotton Wharf	GBR	53.2000	-3.0333	1.07
Exeter	GBR	50.7167	-3.5167	0.96
Battlesbridge	GBR	51.6167	0.5667	0.82
Sutton Bridge	GBR	52.7667	0.2000	1.02
Redbridge	GBR	50.9333	-1.4667	0.79
Eling	GBR	50.9000	-1.4667	0.79
Preston(GBR)	GBR	53.7500	-2.7000	1.16
Barnstaple	GBR	51.0833	-4.0667	0.99
Bird Port	GBR	51.5667	-2.9667	0.98
Newport	GBR	51.5667	-2.9833	0.98
Chepstow	GBR	51.6500	-2.6667	0.97
Grovehurst Jetty	GBR	51.3667	0.7667	0.81
Milton Creek	GBR	51.3667	0.7667	0.81
Sharpness	GBR	51.7167	-2.4833	0.88
Stangate Creek	GBR	51.3833	0.7000	0.82
Bideford	GBR	51.0167	-4.2000	0.97
Runcorn	GBR	53.3500	-2.7333	1.13
Topsham	GBR	50.6833	-3.6333	1.02
Cardiff	GBR	51.4667	-3.1833	1.16
Bridgwater	GBR	51.1667	-3.0000	1.02
Bristol	GBR	51.4500	-2.6333	1.00
Tilbury	GBR	51.4500	0.3333	0.95
Dunball	GBR	51.1667	-2.9833	0.98
Wisbech	GBR	52.6500	0.1500	1.09
Ridham Dock	GBR	51.3833	0.7667	0.90
Sittingbourne	GBR	51.3500	0.7333	0.90
Frodsham	GBR	53.3000	-2.7333	1.20
Rochester	GBR	51.4000	0.5000	1.08
Snodland	GBR	51.3333	0.4500	1.21

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Aylesford	GBR	51.2667	0.4667	1.28
Sukhumi	GEO	43.1667	41.0333	0.31
Batumi	GEO	41.6500	41.6500	0.35
Poti	GEO	42.1500	41.6500	0.38
Volos	GRC	39.3500	22.9500	0.29
Achladi	GRC	38.8833	22.8167	0.33
Koropi	GRC	39.2833	23.1333	0.53
Amaliapolis	GRC	39.1667	22.8667	0.53
Stylis	GRC	38.9000	22.6167	0.88
Ayia Marina(Greece)	GRC	38.8833	22.5833	0.88
Oropos	GRC	38.3167	23.8000	0.67
Aghios Konstantinos	GRC	38.7500	22.8667	0.79
Milaki	GRC	38.3667	24.0667	0.79
Aliveri	GRC	38.3833	24.0500	0.79
Amfilochia	GRC	38.8667	21.1667	0.81
Levkandi	GRC	38.4167	23.6833	1.09
Chalkis	GRC	38.4500	23.6000	1.10
Avlis	GRC	38.4000	23.6333	1.10
Maslenica	HRV	44.2167	15.5333	0.72
Plomin	HRV	45.1333	14.2000	0.13
Rasa	HRV	45.0333	14.0667	0.07
Tar	HRV	45.3167	13.6000	0.48
Sv. Mikula	HRV	44.9833	14.0833	0.25
Pula	HRV	44.8833	13.8333	0.74
Budava	HRV	44.9000	13.9833	0.86
Metkovic	HRV	43.0500	17.6500	0.83
Bantry	IRL	51.7000	-9.4667	1.25
Cobh	IRL	51.8500	-8.2833	1.28
Glengariff	IRL	51.7500	-9.5333	1.23
Whitegate	IRL	51.8333	-8.2500	1.29
Ringaskiddy	IRL	51.8333	-8.3167	1.24
Dundalk	IRL	54.0000	-6.3833	1.06
Passage West	IRL	51.8667	-8.3333	1.10
Sligo	IRL	54.2667	-8.4667	1.28
Kilrush	IRL	52.6333	-9.5000	1.09
Drogheda	IRL	53.7167	-6.3500	1.09
Kinsale	IRL	51.7000	-8.5000	1.24
Ballylongford	IRL	52.5500	-9.4667	1.04
Courtmacsherry	IRL	51.6333	-8.7167	1.04
Glandore	IRL	51.5667	-9.1167	1.07
Kenmare	IRL	51.8667	-9.6000	1.22
Cork	IRL	51.9000	-8.4667	1.06
Union Hall	IRL	51.5667	-9.1333	1.07
Ballina(IRL)	IRL	54.1167	-9.1667	1.27
Tralee	IRL	52.2667	-9.7000	1.22
Skibbereen	IRL	51.5500	-9.2667	1.10
Moneypoint	IRL	52.6000	-9.4000	1.09
Tarbert Is.	IRL	52.5833	-9.3667	1.09
Foynes Is.	IRL	52.6167	-9.1167	1.26
Killadysert	IRL	52.6667	-9.1000	1.26
Cahiracon	IRL	52.6500	-9.1167	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Foynes	IRL	52.6167	-9.1000	1.26
Now Shahr	IRN	36.6333	51.5000	0.85
Bandar Anzali	IRN	37.4333	49.4833	1.02
Neka	IRN	36.6000	53.3167	1.14
Cesenatico	ITA	44.2000	12.4000	1.22
Monfalcone	ITA	45.7833	13.5500	1.29
Marano	ITA	45.4333	12.3500	1.20
Venice	ITA	45.4333	12.3333	1.20
Pellestrina	ITA	45.2667	12.3000	1.21
Chioggia	ITA	45.2167	12.2833	1.21
Porto Levante	ITA	45.0667	12.3667	1.21
Porto Garibaldi	ITA	44.6833	12.2333	1.24
Ravenna	ITA	44.4167	12.4500	1.25
Rimini	ITA	44.0667	12.5833	1.29
Sarzana	ITA	44.1167	9.9667	0.34
Casale sul Sile	ITA	45.6000	12.3167	0.67
Pisa	ITA	43.7167	10.4000	0.47
Porto Nogaro	ITA	45.8167	13.2333	0.65
San Dona di Piave	ITA	45.6333	12.5500	0.81
Torviscosa	ITA	45.8333	13.2833	0.72
Santa Giusta	ITA	39.8833	8.6167	1.06
Donada	ITA	45.0500	12.2167	1.24
Limite	ITA	43.7167	10.9500	1.12
Rome	ITA	41.9000	12.5000	1.08
Ishikari	JPN	43.2500	141.3500	1.25
Kuji	JPN	40.1667	141.7833	1.22
Tamagawa	JPN	40.0833	141.8333	1.22
Kawauchi	JPN	41.1667	141.0000	1.21
Hachinohe	JPN	40.5333	141.5333	1.18
Mutsu Ogawara	JPN	40.9500	141.4167	1.17
Ofunato	JPN	38.9833	141.7500	1.16
Miyako	JPN	39.6333	141.9667	1.26
Okuma	JPN	37.3833	140.9833	1.14
Tomioka	JPN	37.3333	141.0000	1.14
Hirono	JPN	37.2333	141.0167	1.14
Otsuchi	JPN	39.3500	141.9000	1.25
Kamaishi	JPN	39.2667	141.9000	1.24
Kesenuma	JPN	38.8667	141.6000	1.24
Fukura	JPN	39.0667	139.8833	1.27
Onagawa	JPN	38.4500	141.4667	1.23
Oginohama	JPN	38.3833	141.3667	1.23
Noshiro	JPN	40.2167	140.0000	1.27
Funakawa	JPN	39.8833	139.8667	1.26
Akita	JPN	39.7500	140.0667	1.27
Fukushima	JPN	41.4667	140.2667	1.13
Haramichi	JPN	37.6333	140.9667	1.22
Ishinomaki	JPN	38.4167	141.3000	1.24
Sakata	JPN	38.9333	139.8167	1.26
Shiogama	JPN	38.3167	141.0333	1.25
Sendai	JPN	38.2667	141.0500	1.25
Sendai-Shiogama	JPN	38.2833	141.0333	1.25

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Soma	JPN	37.8333	140.9667	1.23
Kuroshima	JPN	37.2667	136.7333	1.25
Hikari	JPN	33.9500	131.9333	1.07
Kasado	JPN	33.9500	131.7833	1.07
Tsuruga	JPN	35.6667	136.0833	1.26
Saganoseki	JPN	33.2500	131.8667	1.14
Seki Saki	JPN	33.2667	131.9000	1.14
Hitachi	JPN	36.4833	140.6333	1.26
Usuki	JPN	33.1333	131.8167	1.17
Tsukumi	JPN	33.0833	131.8667	1.17
Nagasu	JPN	33.5833	131.3667	1.16
Miyazu	JPN	35.5833	135.2167	0.71
Nagahama	JPN	33.6167	132.4833	1.25
Tokuyama	JPN	34.0000	131.8000	1.21
Nakanoseki	JPN	34.0000	131.5667	1.22
Kamo	JPN	34.8500	138.7833	1.28
Yoshida	JPN	33.2667	132.5333	1.28
Uwajima	JPN	33.2167	132.5500	1.28
Hagi	JPN	34.4000	131.4000	1.25
Mihara	JPN	34.3833	133.1000	1.26
Itozaki	JPN	34.3833	133.1000	1.26
Owase	JPN	34.0667	136.2167	1.26
Otake	JPN	34.2000	132.2000	1.26
Hinase	JPN	34.7167	134.2500	1.14
Nanao	JPN	37.1000	137.0333	1.23
Shodoshima	JPN	34.5000	134.2500	1.17
Toyama Shinko	JPN	36.8000	137.0833	1.23
Fushiki	JPN	36.7833	137.0500	1.23
Fushiki-Toyama	JPN	36.7667	137.0833	1.23
Mitajiri	JPN	34.0167	131.6000	1.25
Toyama	JPN	36.7500	137.2333	1.23
Ebisu	JPN	38.0833	139.4333	1.24
Esaki	JPN	34.6500	131.6500	1.20
Niigata-Higashi	JPN	38.0000	139.2333	1.25
Himekawa	JPN	37.0333	137.8500	1.25
Kure	JPN	34.2333	132.5500	1.28
Hiro	JPN	34.2167	132.6167	1.28
Mitsukoshima	JPN	34.1833	132.5167	1.28
Takuma	JPN	34.2500	133.7000	1.21
Akitsu	JPN	34.3167	132.8167	1.28
Ieshima	JPN	34.6667	134.5000	1.17
Senzaki	JPN	34.4000	131.2000	1.28
Hitachinaka	JPN	36.4167	140.4167	0.67
Tsuiyama	JPN	35.6333	134.8167	0.70
Hiketa	JPN	34.2167	134.4000	1.26
Aioi	JPN	34.7667	134.4667	1.26
Ako	JPN	34.7333	134.3833	1.26
Naoshima	JPN	34.4500	134.0000	1.21
Honura	JPN	34.4500	134.0000	1.21
Takamatsu	JPN	34.3500	134.0500	1.21
Kikuma	JPN	34.0333	132.8333	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kinoe	JPN	34.2167	132.9000	1.26
Namikata	JPN	34.1167	132.9667	1.26
Yutaka	JPN	34.1667	132.8333	1.26
Onishi	JPN	34.0500	132.9167	1.26
Hashihama	JPN	34.1000	132.9667	1.26
Yoshiumi	JPN	34.1333	133.0333	1.26
Kinoura	JPN	34.2000	133.1333	1.26
Imabari	JPN	34.0667	133.0167	1.26
Saga	JPN	34.0667	133.0833	1.26
Sakaide	JPN	34.3333	133.8500	1.28
Uchinomi	JPN	34.4667	134.3167	1.24
Katagami	JPN	34.7167	134.2167	0.77
Niihama	JPN	33.9833	133.2833	1.28
Tsuna	JPN	34.4167	134.9000	1.28
Sumoto	JPN	34.3333	134.8833	1.28
Imari	JPN	33.2667	129.8167	0.68
Kochi(JPN)	JPN	33.5167	133.5667	0.77
Yokohama	JPN	35.4500	139.6667	0.87
Maizuru	JPN	35.4833	135.3667	0.77
Minamata	JPN	32.2167	130.3333	0.84
Tsurumi	JPN	35.5000	139.6833	0.85
Matsue	JPN	35.4833	133.0667	0.82
Kawasaki	JPN	35.5000	139.7500	0.84
Ogishima	JPN	35.5000	139.7667	0.84
Saitozaki	JPN	33.6333	130.3500	1.15
Fukuoka	JPN	33.6500	130.3500	1.15
Kisarazu	JPN	35.3667	139.8833	1.12
Hakata	JPN	33.6167	130.3833	1.10
Sasebo	JPN	33.1333	129.7167	0.92
Tottori	JPN	35.5000	134.2167	0.80
Genkai	JPN	33.8333	130.5000	0.91
Okayama	JPN	34.6000	133.9833	0.92
Sagamihara	JPN	35.5667	139.3667	0.91
Oita	JPN	33.2667	131.6667	0.88
Shibaura	JPN	35.6167	139.7500	0.90
Shimabara	JPN	32.8000	130.3333	1.00
Ichihara	JPN	35.5333	140.0667	0.91
Chiba	JPN	35.5667	140.0500	0.91
Saidaiji	JPN	34.6500	134.0333	0.96
Tokyo	JPN	35.6833	139.7333	0.98
Tsurusaki	JPN	33.2500	131.6833	0.97
Funabashi	JPN	35.6667	139.9667	1.08
Goi	JPN	35.5000	140.1000	1.14
Yatsushiro	JPN	32.5167	130.5333	1.10
Kumamoto	JPN	32.8333	130.7000	1.13
Matsuzaka	JPN	34.5667	136.5333	1.10
Tahara	JPN	34.6667	137.3000	1.12
Wakamatsu	JPN	33.9167	130.8167	1.21
Ise	JPN	34.4833	136.6833	1.13
Tobata	JPN	33.9167	130.8500	1.21
Yokoshima	JPN	32.8500	130.5333	1.26

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Makiyama	JPN	33.8833	130.8167	1.25
Futajima	JPN	33.8833	130.7333	1.26
Kitakyushu	JPN	33.8667	130.8167	1.26
Yawata	JPN	33.8667	130.8000	1.26
Aktau	KAZ	44.4167	50.1500	0.92
Incheon	KOR	37.4667	126.6000	1.22
Daesan	KOR	37.0167	126.4167	1.18
Yeonpyung	KOR	37.6000	125.7167	1.10
Gojeong	KOR	36.3000	126.4500	1.09
Sokcho	KOR	38.2333	128.5500	1.11
Taeon	KOR	36.9167	126.2333	1.20
Boryoung	KOR	35.3333	126.4667	1.08
Pyeongtaek	KOR	37.0000	126.7833	1.23
Donghae	KOR	37.5136	129.1203	1.17
Samchok	KOR	37.4842	129.1239	1.17
Okke	KOR	37.5000	129.0833	1.17
Mukho	KOR	37.5492	129.1086	1.17
Janghang	KOR	36.0167	126.6833	1.26
Gunsan	KOR	36.0000	126.7167	1.27
Jinhae	KOR	35.1333	128.6500	1.29
Samchonpo	KOR	34.9167	128.0667	1.28
Wando	KOR	34.3667	126.6667	1.25
Seogwipo	KOR	33.2333	126.5667	1.21
Masan	KOR	35.1833	128.6000	0.73
Samho	KOR	34.8667	126.4667	0.78
Changwon	KOR	35.2167	128.6333	1.00
Kosong(KOR)	KOR	34.9667	128.3000	0.96
Risan	MTG	42.5167	18.7000	0.54
Tivat	MTG	42.4333	18.7000	0.37
Hercegnovi	MTG	42.4500	18.5333	0.67
Zelenika	MTG	42.4500	18.5833	0.57
Kotor	MTG	42.4167	18.7667	0.25
Bijela	MTG	42.4500	18.6667	0.40
Lipci	MTG	42.4833	18.6667	0.28
Oostmahorn	NLD	53.3833	6.1667	1.19
Sneek	NLD	53.0333	5.6667	1.28
Franeker	NLD	53.1833	5.5500	1.28
Meppel	NLD	52.7000	6.2000	1.27
Steenwijk	NLD	52.7833	6.1167	1.26
Lauwersoog	NLD	53.4000	6.2167	1.10
Appingedam	NLD	53.3167	6.8500	1.10
Zwartsluis	NLD	52.6333	6.0667	1.25
Zwolle	NLD	52.5167	6.1167	1.25
Hasselt	NLD	52.5833	6.0833	1.25
Staveren	NLD	52.8667	5.3500	1.27
Almelo	NLD	52.3667	6.6333	1.24
Lemmer	NLD	52.8500	5.6833	1.24
Balk	NLD	52.9000	5.5667	1.22
Woudsend	NLD	52.9333	5.6167	1.22
Wagenborgen	NLD	53.2500	6.9333	1.08
Siddeburen	NLD	53.2500	6.8667	1.08



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Hengelo	NLD	52.2667	6.7667	1.22
Kampen	NLD	52.5833	5.8000	1.21
Schagen	NLD	52.7833	4.7853	1.07
Urk	NLD	52.6667	5.6000	1.17
Deventer	NLD	52.2500	6.1500	1.21
Lelystad	NLD	52.5000	5.4333	1.15
Ymuiden	NLD	52.4500	4.5833	1.26
Zandvoort	NLD	52.3667	4.5333	1.26
Nijkerk	NLD	52.2167	5.4833	1.19
Doesburg	NLD	52.0167	6.1333	1.19
Loppersum	NLD	53.3167	6.7333	1.06
Lochem	NLD	52.1667	6.4167	1.19
Zutphen	NLD	52.1333	6.2000	1.19
'sGravenhage	NLD	52.0833	4.3000	1.26
Katwijk aan Zee	NLD	52.2000	4.4000	1.26
Scheveningen	NLD	52.1000	4.2667	1.26
Muiden	NLD	52.3167	5.0667	1.14
Almere-Haven	NLD	52.3333	5.2167	1.14
Monnickendam	NLD	52.4667	5.0333	1.14
Doetinchem	NLD	51.9667	6.2833	1.17
Spaarndam	NLD	52.4167	4.6833	0.99
Alkmaar	NLD	52.6333	4.7167	0.98
Lisserbroek	NLD	52.2667	4.5667	0.94
Hillegom	NLD	52.3000	4.5833	0.94
Heemstede	NLD	52.3500	4.6000	0.94
Zuidbroek	NLD	53.1667	6.8667	1.05
Middelburg	NLD	51.5000	3.6167	0.97
West Graftdijk	NLD	52.5500	4.7833	0.93
Halfweg	NLD	52.3833	4.7500	0.91
Midwolda	NLD	53.1833	6.9833	0.96
Leiden	NLD	52.1500	4.4667	0.90
Kaag	NLD	52.2000	4.5333	0.88
Leiderdorp	NLD	52.1333	4.5167	0.88
Warmond	NLD	52.1833	4.4833	0.88
Zoutkamp	NLD	53.3333	6.3000	1.04
Winschoten	NLD	53.1333	7.0167	0.93
Pijnacker	NLD	52.0000	4.4167	0.87
Delft	NLD	52.0167	4.3667	0.87
Hoogezand	NLD	53.1667	6.7500	1.06
Stroobos	NLD	53.2333	6.2167	1.04
Flushing	NLD	51.4500	3.5833	1.28
Breskens	NLD	51.4000	3.5667	1.28
Foxhol	NLD	53.1667	6.7167	1.04
Waterhuizen	NLD	53.1833	6.6333	1.05
Westerbroek	NLD	53.1833	6.6833	1.05
Leeuwarden	NLD	53.2000	5.7833	1.01
Kootstertille	NLD	53.2167	6.0833	1.01
Alphen aan den Rijn	NLD	52.1333	4.6333	0.82
Woubrugge	NLD	52.1667	4.6333	0.82
Beverwijk	NLD	52.4833	4.6333	0.92
Uithoorn	NLD	52.2333	4.8333	0.84

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Aalsmeer	NLD	52.2500	4.7500	0.84
Velsen	NLD	52.4667	4.6333	0.87
Maarssen	NLD	52.1667	5.1667	0.87
Groningen	NLD	53.2333	6.5333	1.10
Akkrum	NLD	53.0500	5.8333	1.05
Flushing East	NLD	51.4500	3.6667	0.72
Borssele	NLD	51.4167	3.7333	0.71
Wognum	NLD	52.0667	5.0167	0.90
Utrecht	NLD	52.0833	5.1167	0.90
Gouda	NLD	52.0167	4.7000	0.84
Haarlem	NLD	52.3833	4.6500	0.91
Westzaan	NLD	52.4500	4.7833	0.89
Koog aan den Zaan	NLD	52.4500	4.8167	0.89
Zaandam	NLD	52.4333	4.8333	0.89
Grouw	NLD	53.1000	5.8500	1.12
Drachten	NLD	53.1167	6.1000	1.12
Bergum	NLD	53.2000	5.9833	1.13
Buitenhuizen	NLD	52.4333	4.7167	0.96
Wormerveer	NLD	52.4667	4.7833	0.94
Zeist	NLD	52.0833	5.2333	1.00
Odijk	NLD	52.0333	5.2167	1.00
Heerenveen	NLD	52.9500	5.9167	1.12
Terneuzen	NLD	51.3333	3.8167	0.75
Stellendam	NLD	51.8000	4.0167	0.98
Yerseke	NLD	51.5000	4.0500	0.93
Wemeldinge	NLD	51.5167	4.0000	0.93
Sas van Goes	NLD	51.5000	3.9000	0.79
Wartena	NLD	53.1500	5.9000	1.23
Amsterdam	NLD	52.3667	4.9000	1.04
Oudewater	NLD	52.0333	4.8833	0.95
Hellevoetsluis	NLD	51.8167	4.1333	1.11
Stavenisse	NLD	51.5833	4.0000	1.06
Ouwerkerk	NLD	51.6333	3.9833	1.06
Walsoorden	NLD	51.4500	4.0333	0.94
Hansweert	NLD	51.4500	4.0000	0.93
Middelharnis	NLD	51.7833	4.2000	1.19
Zierikzee	NLD	51.6333	3.8833	1.04
Wolphaartsdijk	NLD	51.5333	3.8167	1.06
Bruinisse	NLD	51.6667	4.1000	1.16
Bergen-op-Zoom	NLD	51.5000	4.2667	1.11
Paal	NLD	51.3500	4.1167	1.10
Axel Sassing	NLD	51.2833	3.8667	1.15
Sluiskil	NLD	51.3000	3.8333	1.15
Sas van Ghent	NLD	51.2333	3.8000	1.28
Dunedin	NZL	-45.8833	170.5167	1.18
Christchurch	NZL	-43.5500	172.6667	0.96
Lyttelton	NZL	-43.6167	172.7167	0.89
Opuā	NZL	-35.3000	174.1333	0.79
Whangarei	NZL	-35.7333	174.3500	0.88
Darłowo	POL	54.4333	16.3833	1.23
Szczecin	POL	53.4167	14.5500	1.16

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Niechorze	POL	54.1000	15.0667	1.17
Police	POL	53.5500	14.6000	1.15
Stepnica	POL	53.6500	14.6333	1.15
Kolobrzeg	POL	54.1833	15.5667	1.13
Wonsan	PRK	39.1667	127.4333	1.29
Kosong(PRK)	PRK	38.6000	128.3500	1.11
Haeju	PRK	38.0000	125.7000	1.25
Nampo	PRK	38.7333	125.4167	0.98
Songnim	PRK	38.7333	125.6167	1.28
Douro	PRT	41.1500	-8.6167	0.93
Portimao	PRT	37.1333	-8.5333	0.99
Barreiro	PRT	38.6500	-9.0833	0.92
Lisbon	PRT	38.7333	-9.1167	0.91
Vila Real de Santo Antonio	PRT	37.1833	-7.4167	1.03
Luminitza	ROM	44.3500	28.6333	0.44
Cernavoda	ROM	44.3500	28.0333	0.46
Agigea	ROM	44.0833	28.6167	0.37
Constantza	ROM	44.1667	28.6500	0.37
Sulina	ROM	45.1500	29.6500	0.44
Mangalia	ROM	43.8167	28.5833	0.20
Gelendzhik	RUS	44.5667	38.1167	0.40
Novorossiysk	RUS	44.7333	37.7833	0.41
Anapa	RUS	44.8833	37.3000	0.40
Tuapse	RUS	44.0833	39.0667	0.18
Kavkaz	RUS	45.3333	36.6500	0.59
Temryuk	RUS	45.2833	37.3667	0.52
Sochi	RUS	43.5833	39.7333	0.15
Taganrog	RUS	47.2000	38.9500	1.07
Tatyanka	RUS	45.9333	48.2833	1.29
Azov	RUS	47.1000	39.4333	1.01
Rostov	RUS	47.1667	39.7000	1.01
Yeisk	RUS	46.7333	38.2667	1.08
Makhachkala	RUS	42.9833	47.5000	1.09
Derbent	RUS	42.0500	48.3000	1.14
Ronnang	SWE	58.0833	11.6667	1.28
Wallhamn	SWE	58.0000	11.7000	1.27
Stenungsund	SWE	58.0833	11.8167	1.26
Skarhamn	SWE	57.9833	11.5500	1.25
Nol	SWE	57.9333	12.1333	1.27
Bohus	SWE	57.8500	12.0333	1.27
Brofjorden	SWE	58.3333	11.3833	1.26
Lysekil	SWE	58.2667	11.4333	1.26
Surte	SWE	57.8333	12.0167	1.25
Agnesberg	SWE	57.7833	12.0000	1.21
Gothenburg	SWE	57.7000	11.9500	1.21
Donso	SWE	57.5833	11.8000	1.18
Kungsbacka	SWE	57.4833	12.0833	1.16
Varberg	SWE	57.1000	12.2500	1.10
Traslovslage	SWE	57.0500	12.2667	1.10
Halmstad	SWE	56.6667	12.8500	1.11
Angelholm	SWE	56.2500	12.8667	1.11

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Bastad	SWE	56.4167	12.8333	1.13
Falkenberg	SWE	56.8833	12.5000	1.07
Hoganas	SWE	56.2000	12.5500	1.04
Lomma	SWE	55.6833	13.0667	1.08
Kopparverkshamn	SWE	56.0167	12.7167	1.06
Helsingborg	SWE	56.0500	12.6833	1.06
Landskrona	SWE	55.8667	12.8333	1.05
Raa	SWE	55.9833	12.7500	1.05
Malmo	SWE	55.6167	13.0000	1.05
Bekdash	TKM	41.5333	52.6000	0.57
Okarem	TKM	38.0667	53.8333	0.49
Turkmenbashi	TKM	40.0167	53.0000	0.98
Tunis	TUN	36.8000	10.2000	1.25
Menzel Bourguiba	TUN	37.1500	9.8000	1.10
Bou Grara	TUN	33.5000	10.6667	1.26
Erdek	TUR	40.4000	27.7833	0.88
Cide	TUR	41.8833	32.9167	0.23
Ayancik	TUR	41.9167	34.3667	0.17
Zonguldak	TUR	41.4500	31.7833	0.15
Ambarli	TUR	40.9667	28.7000	0.74
Marport	TUR	40.9667	28.6667	0.74
Kumport	TUR	40.9667	28.6833	0.74
Yalova	TUR	40.6667	29.2500	0.70
Pazar	TUR	41.2000	40.8667	0.09
Eregli(Sea of Marmara)	TUR	40.9667	27.9667	0.77
Yarimca	TUR	40.7333	29.7667	0.71
Tutunciftlik	TUR	40.7500	29.7833	0.71
Igsas	TUR	40.7500	29.7500	0.71
Zeytinburnu	TUR	40.7500	29.7667	0.71
Derince	TUR	40.7500	29.8167	0.71
Golcuk	TUR	40.7167	29.8000	0.71
Tekirdag	TUR	40.9500	27.5000	0.80
Edincik	TUR	40.3500	27.8667	0.89
Bandirma	TUR	40.3500	27.9667	0.89
Inebolu	TUR	41.9833	33.7500	0.03
Kiyikoy	TUR	41.6333	28.1167	0.06
Igneada	TUR	41.8333	28.0167	0.07
Bartın	TUR	41.6333	32.3333	0.00
Podima	TUR	41.4833	28.2833	0.05
Saraylar	TUR	40.6500	27.6667	0.84
Silivri	TUR	41.0500	28.2667	0.72
Gemlik	TUR	40.4333	29.1500	0.72
Uskudar	TUR	41.0167	29.0167	0.72
Diliskelesi	TUR	40.7667	29.5333	0.72
Hereke	TUR	40.7000	29.6167	0.72
Tavsancil	TUR	40.7833	29.5833	0.72
Mudanya	TUR	40.4500	28.8667	0.72
Sinop	TUR	42.0000	35.1500	0.07
Eregli	TUR	41.3000	31.4500	0.08
Karabiga	TUR	40.4000	27.3000	1.01
Istanbul	TUR	41.0000	28.9667	0.74

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Cekmece	TUR	40.9833	28.5500	0.73
Surmene	TUR	40.9333	40.1667	0.09
Pendik	TUR	40.9000	29.2500	0.74
Kartal	TUR	40.8833	29.1833	0.74
Kurucasile	TUR	41.8333	32.7000	0.13
Karacabey	TUR	40.2333	28.3667	0.76
Amasra	TUR	41.7500	32.3833	0.15
Giresun	TUR	40.9167	38.3833	0.14
Darica	TUR	40.7500	29.3833	0.75
Gebze	TUR	40.7667	29.4333	0.75
Tuzla	TUR	40.8092	29.3481	0.75
Buyukdere	TUR	41.1833	29.0500	0.14
Sile	TUR	41.1667	29.6167	0.15
Haydarpasa	TUR	41.0000	29.0167	0.76
Maltepe	TUR	40.9000	29.1500	0.76
Izmit	TUR	40.7667	29.9167	0.76
Yenikoy	TUR	40.7333	29.9000	0.76
Icdas	TUR	40.4500	27.1333	1.02
Gelibolu	TUR	40.4167	26.6833	1.03
Beykoz	TUR	41.1333	29.0833	0.19
Selvi Burnu	TUR	41.1500	29.0667	0.19
Unye	TUR	41.1333	37.3000	0.21
Fatsa	TUR	41.0333	37.3833	0.21
Samsun	TUR	41.3000	36.3333	0.29
Ordu	TUR	41.0000	37.9000	0.28
Rize	TUR	41.0500	40.5333	0.29
Trabzon	TUR	41.0000	39.7500	0.29
Akcaabat	TUR	41.0000	39.5500	0.30
Hopa	TUR	41.4167	41.4000	0.32
Yalta	UKR	44.5000	34.1667	0.77
Skadovsk	UKR	46.1000	32.9167	0.71
Dneprobugskiy	UKR	46.7500	31.9167	0.74
Oktyabrsk	UKR	46.8333	31.9500	0.74
Ochakov	UKR	46.6000	31.5500	0.71
Kherson	UKR	46.6167	32.6000	0.73
Yuzhnyy	UKR	46.6000	31.0167	0.67
Nikolayev	UKR	46.9667	31.9667	0.71
Odessa	UKR	46.4833	30.7500	0.63
Ilichevsk	UKR	46.3000	30.6500	0.62
Belgorod-Dnestrovskiy	UKR	46.1833	30.3500	0.62
Chernomorsk	UKR	45.5000	32.6667	0.32
Ust-Dunaysk	UKR	45.4667	29.8333	0.34
Izmail	UKR	45.3333	28.8500	0.53
Kiliya	UKR	45.4333	29.2667	0.52
Yevpatoriya	UKR	45.1833	33.3833	0.19
Vilkovo	UKR	45.4000	29.6000	0.51
Sevastopol	UKR	44.6167	33.3667	0.09
Kerch	UKR	45.3500	36.4667	0.60
Mariupol	UKR	47.0500	37.5000	0.96
Berdiansk	UKR	46.7500	36.7833	0.89
Theodosia	UKR	45.0333	35.4000	0.51

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
La Paloma	URY	-34.6500	-54.1500	0.77
Punta del Este	URY	-34.9667	-54.9500	1.20
Maldonado	URY	-34.9500	-54.9500	1.20
Piriapolis	URY	-34.8667	-55.2667	1.15
Montevideo	URY	-34.9000	-56.2667	1.02
Juan Lacaze	URY	-34.4333	-57.4167	0.97
Colonia	URY	-34.4667	-57.8500	1.05
Nueva Palmira	URY	-33.8833	-58.4167	1.17
Hingham	USA	42.2333	-70.8833	1.22
Cherry Point	USA	48.8667	-122.7500	1.04
Point Judith	USA	41.3667	-71.4833	1.25
Ferndale	USA	48.8333	-122.7167	1.07
Bellingham	USA	48.7500	-122.5000	1.07
Westport(WA USA)	USA	46.8833	-124.1000	1.25
New Bedford	USA	41.6333	-70.9167	1.22
Bridgeport	USA	41.1500	-73.1833	1.15
Bayway	USA	40.63	-74.20	1.19
Greenport	USA	41.1000	-72.3500	1.15
Northville	USA	40.9833	-72.6500	1.16
Sag Hbr.	USA	41.0167	-72.3000	1.17
Riverhead	USA	40.9167	-72.6667	1.14
Perth Amboy	USA	40.50	-74.27	1.17
Longview	USA	46.1333	-122.9333	1.02
Rainier	USA	46.0833	-122.9333	1.02
Mukilteo	USA	47.9500	-122.3000	1.04
Everett(WA)	USA	47.9833	-122.2167	1.04
Port Townsend	USA	48.1167	-122.7500	1.09
Jonesport	USA	44.5500	-67.6167	1.15
Plymouth(MA USA)	USA	41.9500	-70.6667	1.17
Tacoma	USA	47.2500	-122.4167	1.00
Port Gamble	USA	47.8667	-122.5833	1.03
Edmonds	USA	47.8167	-122.3667	0.97
Point Wells	USA	47.7833	-122.4000	0.97
Seattle	USA	47.6333	-122.3333	0.93
Yarmouth(USA)	USA	43.8000	-70.2000	0.97
Wildwood	USA	38.9667	-74.8167	1.01
Mamaroneck	USA	40.9333	-73.7333	1.01
Castine	USA	44.3833	-68.8333	1.05
Block Is.	USA	41.2333	-71.5833	1.14
Woods Hole	USA	41.5167	-70.6667	1.18
Salem(MA USA)	USA	42.5167	-70.8833	1.19
Clinton	USA	41.2667	-72.5333	1.09
Searsport	USA	44.4500	-68.9167	1.08
Jamestown(RI USA)	USA	41.5000	-71.3667	1.11
Newport(RI)	USA	41.4833	-71.3333	1.11
Stamford	USA	41.0167	-73.5333	1.12
New Haven	USA	41.2500	-72.9000	1.08
Sparrow's Point	USA	39.20	-76.47	1.01
Coos Bay	USA	43.3833	-124.2000	0.81
Northport	USA	40.9333	-73.3667	1.03
Belfast(USA)	USA	44.4167	-69.0000	1.21

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Portsmouth(RI USA)	USA	41.6000	-71.2333	0.64
Davisville	USA	41.6167	-71.4000	0.66
Melville	USA	41.5833	-71.2833	0.63
Oyster Bay	USA	40.8833	-73.5167	1.08
Port Chester	USA	40.9833	-73.6500	1.08
Patchogue	USA	40.7667	-73.0167	1.06
Tiverton(USA)	USA	41.6333	-71.2000	0.61
City Is.	USA	40.8500	-73.7833	1.09
Bristol(USA)	USA	41.6667	-71.2667	0.61
Brayton Point	USA	41.7000	-71.2000	0.66
Boston(USA)	USA	42.3833	-71.0500	0.71
Moss Landing	USA	36.8000	-121.7833	1.27
Fall River	USA	41.7000	-71.1667	0.69
Virginia Beach	USA	36.8500	-75.9500	0.87
North Kingstown	USA	41.5500	-71.4667	0.65
Groton	USA	41.3500	-72.0833	0.83
Carpinteria	USA	34.4333	-119.6167	1.23
Warren(USA)	USA	41.7333	-71.3000	0.79
Yorktown	USA	37.2333	-76.4000	0.73
New Gretna	USA	39.5833	-74.4500	0.54
Milford(DE USA)	USA	38.9000	-75.4167	0.97
Morro Bay	USA	35.3667	-120.8500	0.92
New London	USA	41.4000	-72.1000	0.99
Salisbury(MD USA)	USA	38.3500	-75.5833	0.84
Providence	USA	41.8000	-71.3833	0.91
Somerset(US)	USA	41.7833	-71.1333	0.95
Somerset(Mass)	USA	41.7833	-71.1333	0.95
Olympia	USA	47.0500	-122.9000	1.27
Port Jefferson	USA	40.9500	-73.0667	0.74
San Francisco	USA	37.8000	-122.4167	0.94
Allyns Point	USA	41.4333	-72.0667	1.12
Cove Point	USA	38.3833	-76.3833	0.61
Richmond(CA USA)	USA	37.9167	-122.3833	0.92
Annapolis	USA	38.9833	-76.4833	0.77
Sausalito	USA	37.8500	-122.4833	0.95
Hempstead Hbr.	USA	40.8333	-73.8500	0.70
Alameda	USA	37.7667	-122.3167	0.89
New York	USA	40.7000	-74.0167	0.78
Port Hueneme	USA	34.1525	-119.2036	1.00
Newport News	USA	36.9667	-76.4167	0.93
Piney Point	USA	38.1333	-76.5333	0.62
Norfolk(USA)	USA	36.8500	-76.3167	0.94
Portsmouth(VA USA)	USA	36.8333	-76.2833	0.94
Chesapeake	USA	36.7833	-76.3000	0.94
Redwood City	USA	37.5000	-122.2167	1.19
Newport Beach	USA	33.6167	-117.9167	1.07
Manteo	USA	35.9000	-75.5833	1.24
Baltimore	USA	39.2833	-76.5833	0.84
Oakland	USA	37.8000	-122.2833	1.26
Rodeo	USA	38.0333	-122.2500	1.20
Selby(USA)	USA	38.0500	-122.2500	1.24

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Marina del Rey	USA	33.9667	-118.4333	1.29
Chula Vista	USA	32.6333	-117.0833	1.02
San Diego	USA	32.7053	-117.1378	1.02
Benicia	USA	38.0333	-122.1500	1.26
Martinez	USA	38.0167	-122.1333	1.26
Charleston	USA	32.7833	-79.9333	1.17

*Appendix K. List of global ports that have highest environmental similarity to St. John's. NIS originating from these ports have the highest potential for survival if introduced at St. John's.*

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Baia dos Tigres	AGO	-16.5167	11.7667	0.85
Tombwa	AGO	-15.7667	11.9167	1.14
Namibe	AGO	-15.1647	12.1578	1.15
Porto Saco	AGO	-15.1333	12.1333	1.15
Sarande	ALB	39.8719	20.0003	0.89
Vlore	ALB	40.4556	19.4850	0.84
Shengjin	ALB	41.8150	19.5872	1.04
Durres	ALB	41.3131	19.4511	0.65
Comodoro Rivadavia	ARG	-45.8569	-67.4822	1.28
Caleta Paula	ARG	-46.4703	-67.4997	1.25
Caleta Olivia	ARG	-46.4333	-67.5167	1.25
Puerto Deseado	ARG	-47.7503	-65.8942	1.17
Camarones	ARG	-44.4500	-65.7000	0.84
Caleta Cordova	ARG	-45.7167	-67.3500	0.72
Mar del Plata	ARG	-38.0331	-57.5447	0.58
Necochea	ARG	-38.5753	-58.7214	0.49
Campana	ARG	-34.1567	-58.9664	0.78
Zarate	ARG	-34.0911	-59.0206	0.78
Atucha	ARG	-33.9569	-59.2511	0.79
Lima(ARG)	ARG	-33.9767	-59.1872	0.79
Puerto Madryn	ARG	-42.7386	-65.0472	0.72
Escobar	ARG	-34.3500	-58.7667	0.70
San Fernando(ARG)	ARG	-34.4500	-58.5333	0.73
Tigre	ARG	-34.4333	-58.5500	0.73
Buenos Aires	ARG	-34.5903	-58.3775	0.72
Punta Colorada	ARG	-41.7000	-65.0333	0.70
Puerto Rosales	ARG	-38.9167	-62.0667	0.73
Puerto Belgrano	ARG	-38.9000	-62.1000	0.73
San Antonio Este	ARG	-40.8169	-64.7519	0.73
Puerto Galvan	ARG	-38.7833	-62.3000	0.97
Ensenada(ARG)	ARG	-34.8667	-57.9000	1.14
La Plata	ARG	-34.8725	-57.9069	1.14
Ibicuy	ARG	-33.7428	-59.1681	0.97
St. Paul Is.(ATF)	ATF	-38.7167	77.5167	0.60
Amsterdam Is.	ATF	-37.8500	77.5333	0.50
Ulverstone	AUS	-41.2333	146.1667	0.89
Port Latta	AUS	-40.8536	145.3872	0.80
Burnie	AUS	-41.0575	145.9050	0.76



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Devonport(AUS)	AUS	-41.1758	146.3511	0.69
Stanley(AUS)	AUS	-40.7667	145.3000	0.72
Bridport(AUS)	AUS	-40.9833	147.3667	0.58
Grassy	AUS	-40.0667	144.1500	0.71
King Is.	AUS	-39.8333	144.0000	0.57
Port Welshpool	AUS	-38.7000	146.4500	0.92
Barry Beach	AUS	-38.7167	146.3833	0.92
Portland(AUS)	AUS	-38.3506	141.6058	0.36
Eden	AUS	-37.0672	149.9064	0.23
Ballast Head	AUS	-35.7667	137.8000	0.24
Rapid Bay	AUS	-35.5167	138.1833	0.17
Edithburgh	AUS	-35.0833	137.7500	0.15
Port Stanvac	AUS	-35.1167	138.4667	0.14
Port Giles	AUS	-35.0225	137.7603	0.15
Port Vincent	AUS	-34.9500	137.8667	0.16
Klein Point	AUS	-34.9172	137.7928	0.16
Albany(AUS)	AUS	-35.0278	117.8956	0.10
Port Kembla	AUS	-34.4650	150.8892	0.39
Port Lincoln	AUS	-34.7244	135.8692	0.29
Adelaide	AUS	-34.8503	138.5669	0.93
Esperance	AUS	-33.8736	121.8919	0.32
Thevenard	AUS	-32.1469	133.6467	0.45
Ardrossan(AUS)	AUS	-34.4344	137.9119	0.58
Jervis Bay	AUS	-35.1000	150.7833	0.35
Busselton	AUS	-33.6333	115.3333	0.46
Whyalla	AUS	-33.0375	137.5869	0.46
Kincumber South	AUS	-33.4667	151.3667	1.27
Wallaroo	AUS	-33.9294	137.6247	0.71
Port Pirie	AUS	-33.1686	138.0108	0.76
Bunbury	AUS	-33.3358	115.6503	0.57
Port Bonython	AUS	-32.9889	137.7672	0.85
Catherine Hill Bay	AUS	-33.1667	151.6333	0.59
Kurnell	AUS	-34.0000	151.2333	0.61
Port Jackson	AUS	-33.8333	151.2833	0.61
Kwinana	AUS	-32.2167	115.7500	0.76
Port Augusta	AUS	-32.5000	137.7833	1.27
Fremantle	AUS	-32.0592	115.7508	0.82
Lord Howe Is.	AUS	-31.5333	159.0833	0.88
Geraldton	AUS	-28.7786	114.5897	1.10
Useless Loop	AUS	-26.1103	113.3944	1.12
Coffs Hbr.	AUS	-30.3000	153.1500	1.18
Clarence River	AUS	-29.4167	153.3833	1.22
Thornlands	AUS	-27.5333	153.2667	1.23
Cape Cuvier	AUS	-24.2261	113.3939	1.26
Ostend	BEL	51.2297	2.9225	1.27
Nieuwpoort	BEL	51.1336	2.7483	1.23
Zandvoorde	BEL	51.2167	2.9667	1.22
Wielingen	BEL	51.3833	3.3833	1.19
Tramandai	BRA	-30.0000	-50.0833	0.81
Imbituba	BRA	-28.2336	-48.6528	0.78
Porto Laguna	BRA	-28.5000	-48.7500	0.79

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Mangaratiba	BRA	-22.9000	-44.0500	0.90
Porto Belo	BRA	-27.1667	-48.5500	0.99
Navegantes	BRA	-26.8833	-48.6500	1.06
Itajai	BRA	-26.8994	-48.6706	1.06
Ilhabela	BRA	-23.7667	-45.3500	1.02
Buzios	BRA	-22.7500	-41.9000	1.07
Sao Francisco do Sul	BRA	-26.2333	-48.6333	1.16
Forno	BRA	-23.0167	-42.0000	1.10
Chonchi	CHL	-42.6167	-73.7833	1.28
Matanzas(CHL)	CHL	-33.9833	-71.9000	0.98
Penco	CHL	-36.7167	-73.0000	0.71
Lirquen	CHL	-36.7167	-72.9833	0.69
Coquimbo	CHL	-29.9500	-71.3500	0.84
Guayacan	CHL	-29.9667	-71.3667	0.84
Valparaiso	CHL	-33.0167	-71.6333	0.82
Las Salinas	CHL	-33.0167	-71.5667	0.82
Lota	CHL	-37.1000	-73.1667	0.61
Coronel	CHL	-37.0333	-73.1667	0.61
Puerto Papudo	CHL	-32.5000	-71.4500	0.42
Puerto Ventanas	CHL	-32.7500	-71.5000	0.43
Quintero	CHL	-32.7667	-71.5000	0.43
San Antonio(CHL)	CHL	-33.6000	-71.6167	0.33
Los Vilos	CHL	-31.9167	-71.5000	0.33
Cruz Grande	CHL	-29.4500	-71.3333	0.22
Huasco	CHL	-28.4500	-71.2333	0.10
Caleta Michilla	CHL	-22.7333	-70.2667	0.09
Caleta Barquito	CHL	-26.3500	-70.6500	0.10
Chanaral	CHL	-26.3500	-70.6333	0.10
Iquique	CHL	-20.2000	-70.1667	0.10
Caleta Patillos	CHL	-20.7500	-70.2000	0.10
Caleta Patache	CHL	-20.8000	-70.2000	0.10
Caldera(CHL)	CHL	-27.0667	-70.8833	0.11
Tocopilla	CHL	-22.0833	-70.2333	0.12
Taltal	CHL	-25.4000	-70.4833	0.14
Caleta Coloso	CHL	-23.7500	-70.4667	0.13
Antofagasta	CHL	-23.6333	-70.4333	0.13
Mejillones	CHL	-23.1000	-70.4667	0.37
Arica	CHL	-18.4833	-70.3333	0.74
Hanga Roa	CHL	-27.1500	-109.4167	1.14
Huanghua	CHN	38.3667	117.3333	1.24
Tanggu	CHN	39.0000	117.6500	1.25
Tianjin	CHN	39.1000	117.1667	1.24
Xingang	CHN	38.9833	117.7500	1.26
Chongming	CHN	31.6167	121.3667	1.15
Luojing	CHN	31.4500	121.3000	1.13
Shanghai	CHN	31.2500	121.5000	1.13
Nanhui	CHN	31.0500	121.7500	1.17
Jinshan	CHN	30.7167	121.3167	1.13
Majishan	CHN	30.6833	122.4167	1.17
Matsu Is.	CHN	26.1500	119.9333	1.17
Zhangzhou	CHN	24.4167	118.0500	1.14

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Xiamen	CHN	24.4500	118.0667	1.14
Songxia	CHN	25.6833	119.5833	1.18
Dongshan	CHN	23.7500	117.5167	1.20
Gran Tarajal	CNI	28.2000	-14.0167	0.47
Arrecife	CNI	28.9500	-13.5500	0.50
Puerto del Rosario	CNI	28.5000	-13.8500	0.50
Morrojable	CNI	28.0333	-14.3333	0.53
Arguineguin	CNI	27.7500	-15.6667	0.59
Los Cristianos	CNI	28.0500	-16.7167	0.64
Las Palmas	CNI	28.1331	-15.4319	0.64
La Salineta	CNI	27.9667	-15.3667	0.65
Santa Cruz de Tenerife	CNI	28.4833	-16.2333	0.70
Palma(Canary Is)	CNI	28.6833	-17.7667	0.74
Santa Cruz de la Palma	CNI	28.6667	-17.7500	0.74
La Estaca	CNI	27.7833	-17.9000	0.76
Hierro	CNI	27.7500	-18.0000	0.76
Gomera	CNI	28.1000	-17.1000	0.76
San Sebastian(CNI)	CNI	28.0833	-17.1167	0.76
Xeros Pier	CYP	35.1333	32.8333	1.01
Karavostassi	CYP	35.1333	32.8167	1.01
Paphos	CYP	34.7500	32.4167	1.01
Latchi	CYP	35.0333	32.4000	1.12
Vassiliko Bay	CYP	34.7000	33.3333	1.15
Limassol	CYP	34.6542	33.0103	1.15
Akrotiri	CYP	34.5667	33.0333	1.15
Larnaca	CYP	34.9167	33.6333	1.16
Dhekelia	CYP	34.9833	33.7333	1.21
Famagusta	CYP	35.1167	33.9333	1.21
Kalecik	CYP	35.3167	33.9833	1.24
Kyrenia	CYP	35.3333	33.3167	1.24
Teknecik	CYP	35.2833	33.4667	1.24
Arzew	DZA	35.8606	-0.3097	0.53
Mers el Kebir	DZA	35.7333	-0.7000	0.56
Beni Saf	DZA	35.3008	-1.3906	0.55
Ghazaouet	DZA	35.0981	-1.8578	0.58
Annaba	DZA	36.8997	7.7567	0.80
Algiers	DZA	36.7706	3.0531	0.64
Tenes	DZA	36.5186	1.3197	0.67
Cherchell	DZA	36.6081	2.1931	0.67
Dellys	DZA	36.9197	3.8936	0.86
Skikda	DZA	36.8778	6.9439	0.80
Bejaia	DZA	36.7217	5.0739	0.85
Djen Djen	DZA	36.8208	5.7700	0.79
Collo	DZA	37.0089	6.5633	0.81
Oran	DZA	35.7058	-0.6422	0.94
Mostaganem	DZA	35.9347	0.0808	1.11
Galapagos Is.	ECU	-0.2667	-91.3667	1.29
La Libertad(ECU)	ECU	-2.2167	-80.9167	1.28
Salinas	ECU	-2.1667	-80.9500	1.28
Sokhna	EGY	29.6833	32.3667	1.07
Ras Sudr Term.	EGY	29.5833	32.6833	1.08

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Mersa Matruh	EGY	31.3667	27.2333	1.07
El Arish	EGY	31.1167	33.8000	1.15
Idku	EGY	31.3500	30.3000	1.13
Abu Kir	EGY	31.3000	30.0667	1.13
El Dekheila	EGY	31.1500	29.8000	1.14
Alexandria(EGY)	EGY	31.1833	29.8667	1.14
El Agami Is.	EGY	31.1500	29.7833	1.14
Port Said	EGY	31.2500	32.3000	1.24
Port Fouad	EGY	31.2333	32.3333	1.24
Abu Rudeis	EGY	28.9000	33.1667	1.20
Ortigueira	ESP	43.6833	-7.8333	0.95
Bilbao	ESP	43.3106	-3.0286	0.95
Corme	ESP	43.2667	-8.9667	0.71
Cedeira	ESP	43.6500	-8.0667	0.64
Puente Ceso	ESP	43.2500	-8.9000	1.14
Cudillero	ESP	43.5500	-6.1500	0.52
San Esteban de Pravia	ESP	43.5667	-6.0833	0.52
Bermeo	ESP	43.4167	-2.7167	0.55
Ribadesella	ESP	43.4667	-5.0667	0.56
Castro Urdiales	ESP	43.4000	-3.2333	0.53
Cillero	ESP	43.6833	-7.6000	0.73
Carino	ESP	43.7333	-7.8500	0.49
Pasajes	ESP	43.3333	-1.9333	0.57
San Sebastian(ESP)	ESP	43.3167	-1.9833	0.57
Burela	ESP	43.6500	-7.3333	0.44
San Ciprian	ESP	43.7000	-7.4500	0.44
Santona	ESP	43.4667	-3.4667	0.49
Vivero	ESP	43.6667	-7.6000	0.96
Ribadeo	ESP	43.5333	-7.0333	0.41
Camarnas	ESP	43.1167	-9.1833	0.61
Tapia de Casariego	ESP	43.5667	-6.9333	0.39
Castropol	ESP	43.5333	-7.0167	0.39
Puerto de Vega	ESP	43.5667	-6.6333	0.38
Navia	ESP	43.5500	-6.7167	0.38
Corunna	ESP	43.3833	-8.3667	0.41
Santa Eugenia de Riveira	ESP	42.5500	-8.9833	0.82
Aviles	ESP	43.5833	-5.9333	0.36
Gijon	ESP	43.5500	-5.6667	0.35
Villaviciosa	ESP	43.5333	-5.3833	0.35
Muros	ESP	42.7500	-9.0167	0.88
Santander	ESP	43.4667	-3.7667	0.41
Sada	ESP	43.3667	-8.2500	0.85
Caraminal	ESP	42.6000	-8.9333	0.93
Corcubion	ESP	42.9500	-9.1833	0.86
Cee	ESP	42.9500	-9.1667	0.86
Lage	ESP	43.2167	-9.0000	0.33
Ferrol	ESP	43.4667	-8.2667	0.96
Astillero	ESP	43.4000	-3.8167	1.01
Fene	ESP	43.4667	-8.1667	1.11
Guetaria	ESP	43.3000	-2.2000	0.38
Zumaya	ESP	43.3000	-2.2500	0.38

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Fuenterrabia	ESP	43.3667	-1.8000	1.15
Ondarroa	ESP	43.3167	-2.4167	0.33
Lequeitio	ESP	43.3667	-2.4833	0.33
Cangas	ESP	42.2667	-8.7667	1.25
Orio	ESP	43.2667	-2.1167	1.09
Rosas	ESP	42.2500	3.1833	0.78
Vallcarca	ESP	41.2333	1.8667	0.68
San Feliu de Guixols	ESP	41.7667	3.0167	0.75
Palamos	ESP	41.8333	3.1333	0.75
Algeciras	ESP	36.1167	-5.4333	0.14
Ceuta	ESP	35.8833	-5.3167	0.15
Barcelona	ESP	41.3500	2.1667	0.69
Puerto Banus	ESP	36.4833	-4.9333	0.84
Palma(Maj)	ESP	39.5697	2.6256	0.74
Motril	ESP	36.7167	-3.5167	0.32
Tarragona	ESP	41.1000	1.2333	0.74
Almunecar	ESP	36.7333	-3.6833	0.84
Villanueva y Geltru	ESP	41.2167	1.7333	0.67
Melilla	ESP	35.2833	-2.9333	0.50
San Carlos de la Rapita	ESP	40.6000	0.6000	0.85
Alcanar	ESP	40.5833	0.5500	0.85
Castellon	ESP	39.9667	0.0167	0.75
Vinaroz	ESP	40.4667	0.4667	0.85
Malaga	ESP	36.7178	-4.4250	0.83
Ciudadela	ESP	40.0000	3.8333	0.72
Burriana	ESP	39.8667	-0.0667	0.85
Sagunto	ESP	39.6500	-0.2167	0.77
Tarifa	ESP	36.0000	-5.6000	0.72
Carboneras	ESP	37.0000	-1.8833	0.70
Garrucha	ESP	37.1667	-1.8333	0.70
Valencia	ESP	39.4500	-0.3000	0.80
Cartagena(ESP)	ESP	37.5833	-0.9833	0.73
Escombreras	ESP	37.5500	-0.9667	0.73
San Pedro del Pinatar	ESP	37.8167	-0.7500	0.74
Torre Vieja	ESP	37.9667	-0.6833	0.74
San Antonio(ESP)	ESP	38.9833	1.3000	0.80
Alicante	ESP	38.3333	-0.4833	0.76
Santa Pola	ESP	38.2000	-0.5667	0.76
Gandia	ESP	39.0000	-0.1500	0.82
Cullera	ESP	39.1833	-0.2167	0.82
Aguilas	ESP	37.4000	-1.5667	0.90
La Savina	ESP	38.7333	1.4167	0.80
Ibiza	ESP	38.9000	1.4667	0.81
La Canal	ESP	38.8333	1.3833	0.81
Denia	ESP	38.8333	0.1167	0.84
Formentera	ESP	38.6500	1.5833	0.81
Barbate	ESP	36.1667	-5.9833	0.75
Porto Colom	ESP	39.4333	3.2500	0.87
Mahon	ESP	39.8667	4.3000	0.89
Puerto Pollensa	ESP	39.8833	3.0667	0.90
Alcudia	ESP	39.8333	3.1333	0.90

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
San Fernando(ESP)	ESP	36.4667	-6.2000	1.17
Rota	ESP	36.6167	-6.3667	0.87
Cadiz	ESP	36.5000	-6.3333	0.87
Puerto de Santa Maria	ESP	36.6000	-6.2333	1.12
Almeria	ESP	36.8333	-2.5000	0.93
Roquetas	ESP	36.7500	-2.6167	0.93
Puerto Real	ESP	36.5333	-6.1833	1.28
Gravelines	FRA	50.9833	2.1333	1.29
Dunkirk	FRA	51.0500	2.3500	1.27
Mardyck	FRA	51.0000	2.2333	1.27
Boulogne	FRA	50.7333	1.6167	1.21
Ouistreham	FRA	49.2833	-0.2500	1.19
Antifer	FRA	49.6667	0.1667	1.20
Le Havre	FRA	49.4833	0.1167	1.20
St. Valery en Caux	FRA	49.8667	0.7167	1.21
Fecamp	FRA	49.7667	0.3667	1.20
Courseulles sur Mer	FRA	49.3333	-0.4500	1.18
Saint Quay Portrieux	FRA	48.6500	-2.8333	1.21
Dahouet	FRA	48.5833	-2.5667	1.17
Le Legue	FRA	48.5333	-2.7167	1.17
Calais	FRA	50.9667	1.8500	1.15
Paimpol	FRA	48.7833	-3.0500	1.19
Dielette	FRA	49.5500	-1.8500	1.16
Port Barrier	FRA	48.6333	-2.4167	1.13
Erquy	FRA	48.6333	-2.4667	1.13
Barfleur	FRA	49.6667	-1.2500	1.14
Le Treport	FRA	50.0667	1.3667	1.14
Carteret	FRA	49.3667	-1.8000	1.15
Cancale	FRA	48.6667	-1.8500	1.11
St. Malo	FRA	48.6494	-2.0253	1.11
Le Guildo	FRA	48.6333	-2.2333	1.11
Dieppe	FRA	49.9333	1.0833	1.12
Granville	FRA	48.8333	-1.6000	1.10
Cherbourg	FRA	49.6411	-1.6142	1.07
Honfleur	FRA	49.4167	0.2333	1.08
Deauville	FRA	49.3500	0.0667	1.08
Pornic	FRA	47.1167	-2.1167	1.02
Piriac	FRA	47.3833	-2.5500	0.98
Port Joinville	FRA	46.7333	-2.3500	0.96
Audierne	FRA	48.0167	-4.5333	1.12
Roscoff	FRA	48.7167	-3.9833	0.94
Morlaix	FRA	48.6333	-3.8833	0.93
Le Palais	FRA	47.3500	-3.1667	0.93
Paluden	FRA	48.5833	-4.5167	1.09
Brest	FRA	48.3833	-4.4833	1.27
Concarneau	FRA	47.8667	-3.9167	0.89
Douarnenez	FRA	48.1000	-4.3333	0.88
Camaret	FRA	48.2833	-4.6000	0.86
Morgat	FRA	48.2167	-4.5000	0.86
Loctudy	FRA	47.8333	-4.1667	0.79
La Trinite sur Mer	FRA	47.5833	-3.0333	0.79

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Saint Brevin	FRA	47.2500	-2.1500	0.82
Quiberon	FRA	47.5000	-3.1167	0.75
St. Nazaire	FRA	47.2667	-2.2000	0.80
Sables d'Olonne	FRA	46.5000	-1.8000	0.81
La Rochelle	FRA	46.1500	-1.1500	0.77
Marennes	FRA	45.8167	-1.1000	0.61
La Pallice	FRA	46.1667	-1.2333	0.75
Arcachon	FRA	44.6667	-1.1667	0.99
La Teste	FRA	44.6167	-1.1500	0.95
Gujan-Mestras	FRA	44.6333	-1.0500	1.21
St. Jean de Luz	FRA	43.4000	-1.6667	0.49
Hendaye	FRA	43.3667	-1.7667	1.01
Biarritz	FRA	43.5000	-1.5667	0.45
Sanary-sur-Mer	FRA	43.1167	5.8000	0.82
Port Vendres	FRA	42.5167	3.1167	0.31
Collioure	FRA	42.5333	3.0833	0.31
Bastia	FRA	42.7000	9.4500	0.67
La Ciotat	FRA	43.1667	5.6000	0.75
Cassis	FRA	43.2167	5.5333	0.81
Lavera	FRA	43.3833	5.0000	0.27
Port de Bouc	FRA	43.4000	4.9833	0.27
Martigues	FRA	43.4000	5.0500	0.27
Le Lavandou	FRA	43.1333	6.3667	0.68
Marseille	FRA	43.3333	5.3500	0.83
Etang de Berre	FRA	43.4833	5.1667	0.88
Ajaccio	FRA	41.9167	8.7333	0.62
Fos	FRA	43.3833	4.8500	0.88
Sete	FRA	43.4000	3.7000	0.85
La Nouvelle	FRA	43.0167	3.0667	0.80
Propriano	FRA	41.6667	8.9000	0.62
Antibes	FRA	43.5833	7.1333	0.70
Cannes	FRA	43.5167	7.0167	0.70
Ile Rousse	FRA	42.6500	8.9333	0.42
Calvi	FRA	42.5833	8.8000	0.42
St. Tropez	FRA	43.2667	6.6333	0.72
Toulon	FRA	43.1167	5.9167	0.76
La Seyne	FRA	43.1000	5.8833	0.76
Villefranche	FRA	43.7000	7.3167	0.43
Nice	FRA	43.7000	7.2833	0.43
Beaulieu	FRA	43.7000	7.3333	0.43
Bonifacio	FRA	41.3833	9.1000	0.66
Hyerres-Plage	FRA	43.0833	6.1500	0.76
Porquerolles	FRA	42.9833	6.2000	0.80
Porto Vecchio	FRA	41.6000	9.2833	0.62
Cromer	GBR	52.9333	1.3000	1.27
Poole	GBR	50.7167	-1.9833	1.27
Fleetwood	GBR	53.9333	-3.0000	1.22
Watchet	GBR	51.1833	-3.3333	1.21
Rye	GBR	50.9333	0.7667	1.22
Faversham	GBR	51.3333	0.9000	1.22
Littlehampton	GBR	50.8000	-0.5333	1.21

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Brighton(GBR)	GBR	50.8167	-0.1000	1.21
Shoreham	GBR	50.8333	-0.2500	1.21
Ilfracombe	GBR	51.2000	-4.1167	1.19
Portbury	GBR	51.5000	-2.7333	1.19
Portishead	GBR	51.4833	-2.7667	1.19
Walton Bay	GBR	51.4667	-2.8167	1.19
Avonmouth	GBR	51.5000	-2.7167	1.19
Llanelli	GBR	51.6667	-4.1667	1.17
Folkestone	GBR	51.0833	1.2000	1.19
Bridport(GBR)	GBR	50.7167	-2.7667	1.18
Barry	GBR	51.4000	-3.2667	1.16
Casquets	GBR	49.7333	-2.3833	1.19
Christchurch	GBR	50.7333	-1.7500	1.14
Guernsey	GBR	49.4500	-2.5333	1.19
St. Peter Port	GBR	49.4500	-2.5333	1.19
Newhaven	GBR	50.7833	0.0667	1.14
Hastings(GBR)	GBR	50.8500	0.5833	1.14
Herne Bay	GBR	51.3667	1.1167	1.15
Whitstable	GBR	51.3667	1.0333	1.15
Swansea	GBR	51.6167	-3.9333	1.12
Briton Ferry	GBR	51.6167	-3.8333	1.12
Leigh	GBR	51.5500	0.6500	1.15
Canvey Is.	GBR	51.5167	0.6333	1.15
Sark	GBR	49.4333	-2.3667	1.18
Par	GBR	50.3500	-4.7000	1.12
Brixham	GBR	50.4000	-3.5000	1.20
Alderney	GBR	49.7167	-2.2000	1.16
Southend	GBR	51.5333	0.7167	1.13
Teignmouth	GBR	50.5500	-3.5000	1.11
Yarmouth(GBR)	GBR	50.7000	-1.5000	1.11
Lymington	GBR	50.7667	-1.5500	1.11
Jersey	GBR	49.1833	-2.1167	1.14
St. Helier	GBR	49.1833	-2.1167	1.14
Weymouth	GBR	50.6167	-2.4500	1.10
Portland(GBR)	GBR	50.5667	-2.4333	1.10
Fowey	GBR	50.3333	-4.6333	1.09
Charlestown(England)	GBR	50.3333	-4.7500	1.09
Mevagissey	GBR	50.2667	-4.7833	1.09
Salcombe	GBR	50.2167	-3.7833	1.17
Mullion Cove	GBR	50.0167	-5.2667	1.09
Porthleven	GBR	50.0833	-5.3167	1.09
Fawley	GBR	50.8167	-1.3333	1.09
Padstow	GBR	50.5500	-4.9333	1.12
Torquay	GBR	50.4500	-3.5333	1.06
Dartmouth	GBR	50.3500	-3.5833	1.06
Exmouth(GBR)	GBR	50.6167	-3.4167	1.06
Plymouth	GBR	50.3667	-4.1833	1.05
Devonport(GBR)	GBR	50.3667	-4.1667	1.05
Truro	GBR	50.1667	-5.0333	1.03
Falmouth	GBR	50.1667	-5.0500	1.03
Dean Quarry	GBR	50.0333	-5.0833	1.03



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Porthoustock Quarry	GBR	50.0500	-5.0667	1.03
St. Ives	GBR	50.2167	-5.4833	1.02
Hayle	GBR	50.1833	-5.4333	1.02
Cowes	GBR	50.7667	-1.3000	1.04
Hamble	GBR	50.8167	-1.3000	1.04
Fishbourne	GBR	50.7333	-1.2000	1.04
Newport(IOW)	GBR	50.7000	-1.2833	1.04
Newlyn	GBR	50.1333	-5.5500	1.08
Penzance	GBR	50.1333	-5.5333	1.08
Ryde	GBR	50.7333	-1.1500	1.02
Freshwater Bay(GBR)	GBR	50.6667	-1.5167	1.01
Gibraltar	GIB	36.1500	-5.3333	0.14
Thasos	GRC	40.7667	24.7000	1.03
Eratini	GRC	38.3500	22.2333	0.97
Alexandroupolis	GRC	40.8500	25.9500	1.05
Aspra Spitia	GRC	38.3667	22.6333	1.00
Elevtherai	GRC	40.8333	24.3167	1.03
Nea Peramos	GRC	40.8167	24.3000	1.03
Nea Karvali	GRC	40.9500	24.4833	1.07
Kavala	GRC	40.9167	24.4167	1.07
Thisvi	GRC	38.2500	22.9500	0.97
Lagos(GRC)	GRC	41.0000	25.1167	1.04
Prinos	GRC	40.9333	24.5167	1.06
Kalyvia	GRC	40.2667	23.4000	1.02
Yerakini	GRC	40.2667	23.4333	1.02
Thessaloniki	GRC	40.6333	22.9333	1.11
Nea Moudhania	GRC	40.2333	23.2833	1.04
Igoumenitsa	GRC	39.5333	20.2167	0.88
Limni	GRC	38.7667	23.3167	0.91
Galaxidi	GRC	38.3667	22.3833	0.94
Itea	GRC	38.4333	22.4167	0.94
Chios	GRC	38.3833	26.1500	0.85
Samothraki	GRC	40.4500	25.5333	0.49
Rion	GRC	38.3000	21.8000	0.84
Patras	GRC	38.2500	21.7333	0.84
Aegion	GRC	38.2500	22.1000	0.86
Astakos	GRC	38.5333	21.0833	0.88
Myrina	GRC	39.8667	25.0500	0.45
Eleusis	GRC	38.0333	23.5000	1.01
Ayios Evstratios	GRC	39.5167	24.9667	0.47
Mesolongion	GRC	38.3167	21.3667	0.81
Mytilene	GRC	39.1000	26.5833	0.37
Kalamata	GRC	37.0000	22.1167	0.81
Corfu	GRC	39.6167	19.9500	0.87
Stratoni	GRC	40.5167	23.8500	0.59
Agioi Theodoroi	GRC	37.9000	23.0500	1.00
Kalamaki	GRC	37.9167	23.0167	1.00
Sousaki	GRC	37.9167	23.1167	1.00
Drepanon	GRC	38.7833	20.7333	0.90
Corinth	GRC	37.9500	22.9333	0.98
Rafina	GRC	38.0167	24.0000	0.52

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Proti Is.	GRC	37.0500	21.5500	0.80
Kiato	GRC	38.0167	22.7333	0.66
Kimi	GRC	38.6333	24.1000	0.52
Kheli	GRC	37.3167	23.1500	0.93
Spetsai	GRC	37.2667	23.1667	0.93
Karistos	GRC	38.0167	24.4167	0.50
Isthmia	GRC	37.9167	23.0000	1.00
Skopelos	GRC	39.1167	23.7500	0.56
Alonisos	GRC	39.1500	23.8333	0.56
Andros	GRC	37.8167	24.9000	0.48
Porto Rafti	GRC	37.8833	24.0000	0.52
Aspropyrgos	GRC	38.0167	23.5833	1.05
Skiathos	GRC	39.1667	23.4833	0.61
Argostoli	GRC	38.2000	20.4833	0.87
Tinos	GRC	37.5333	25.1667	0.49
Mykonos	GRC	37.4500	25.3333	0.50
Delos	GRC	37.4000	25.2833	0.50
Kea	GRC	37.6333	24.3333	0.55
Ayios Nikolaos(Kea)	GRC	37.6667	24.3167	0.55
Laurium	GRC	37.7000	24.0667	0.57
Mandoudhi	GRC	38.8167	23.5333	0.59
Kymassi	GRC	38.8167	23.5167	0.59
Syros	GRC	37.4333	24.9500	0.53
Kithnos	GRC	37.4000	24.4667	0.56
Naxos	GRC	37.1000	25.3833	0.52
Paros	GRC	37.0833	25.3167	0.52
Karlovassi	GRC	37.8000	26.6833	0.49
Larimna	GRC	38.5667	23.3000	0.61
Serifos	GRC	37.1167	24.5333	0.56
Vatika Bay	GRC	36.5167	23.0000	0.60
Neapolis	GRC	36.5000	23.0500	0.60
Monemvasia	GRC	36.6833	23.0500	0.60
Pythagorion	GRC	37.6833	26.9333	1.00
Preveza	GRC	38.9500	20.7500	0.96
Nauplia	GRC	37.5667	22.8000	0.99
Kimolos	GRC	36.7833	24.5667	0.58
Sifnos Is.	GRC	36.9667	24.7167	0.58
Voudia Bay	GRC	36.7500	24.5333	0.59
Amorgos	GRC	36.8167	25.9000	0.55
Katakolon	GRC	37.6500	21.3333	0.90
Patmos	GRC	37.3000	26.5833	0.53
Samos	GRC	37.7500	26.9667	0.53
Ermioni	GRC	37.3833	23.2333	0.66
Hydra	GRC	37.3500	23.4667	0.66
Adhamas	GRC	36.7167	24.4500	0.61
Metokhi	GRC	37.7000	23.3833	0.68
Poros	GRC	37.5000	23.4667	0.68
Thira	GRC	36.4167	25.4500	0.59
Rethimnon	GRC	35.3667	24.4667	0.97
Megara	GRC	37.9667	23.4000	0.70
Pachi	GRC	37.9667	23.3833	0.70

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Revithousa	GRC	37.9592	23.4036	0.70
Aegina	GRC	37.7333	23.4167	0.70
Piraeus	GRC	37.9333	23.6333	0.70
Drapetzone	GRC	37.9333	23.6167	0.70
Perama	GRC	37.9500	23.5833	0.70
Salamis	GRC	37.9667	23.5000	0.70
St. George Hbr.(GRC)	GRC	37.9500	23.6000	0.70
Ambelaki	GRC	37.9500	23.5333	0.70
Ayia Marina(Leros Is.)	GRC	37.1500	26.8500	0.57
Port Laki	GRC	37.1167	26.8500	0.57
Astipalia	GRC	36.5333	26.3667	0.59
Ayios Nikolaos(Crete)	GRC	35.1833	25.7167	0.83
Ayia Galini	GRC	35.1000	24.6833	0.86
Pachia Ammos	GRC	35.1167	25.8333	0.83
Kithira	GRC	36.1333	23.0000	0.69
Gythion	GRC	36.7500	22.5667	0.94
Stavros	GRC	38.4500	20.6500	0.74
Vathi	GRC	38.3667	20.7333	0.74
Platylia	GRC	38.4667	21.1000	0.73
Halki	GRC	36.2167	27.5833	0.66
Kalymnos	GRC	36.9500	26.9833	0.67
Kissamos	GRC	35.4833	23.6333	0.75
Suda Bay	GRC	35.4833	24.0500	0.74
Nisiros	GRC	36.6167	27.1333	0.68
Yali	GRC	36.6500	27.1167	0.68
Gavdo	GRC	34.8333	24.0667	0.72
Araxos	GRC	38.1667	21.4000	0.76
Sitia	GRC	35.2167	26.1167	0.89
Cape Tainaron	GRC	36.3833	22.4833	0.78
Karpathos	GRC	35.5000	27.2000	0.71
Skaramanga	GRC	38.0000	23.5833	1.14
Iraklion	GRC	35.2667	25.1667	0.74
Linoperamata	GRC	35.3500	25.0500	0.74
Kos	GRC	36.8833	27.3167	0.69
Zante	GRC	37.7833	20.9000	0.79
Pylos	GRC	36.9167	21.7000	0.83
Kyllini	GRC	37.9500	21.1500	0.82
Kali Limenes	GRC	34.9333	24.8333	0.78
Kyparissia	GRC	37.2500	21.6833	0.86
Simi	GRC	36.6167	27.8333	0.81
Rhodes	GRC	36.4500	28.2333	0.94
Opatija	HRV	45.3333	14.3167	1.27
Makarska	HRV	43.2833	17.0167	1.28
Omisalj	HRV	45.2167	14.5500	1.09
Kraljevica	HRV	45.2833	14.5667	1.09
Prtlog	HRV	45.0500	14.1500	0.97
Rabac	HRV	45.0667	14.1667	0.97
Gruz	HRV	42.6667	18.0833	1.01
Dubrovnik	HRV	42.6333	18.1167	1.01
Pag	HRV	44.4500	15.0500	1.03
Umag	HRV	45.4333	13.5167	0.98

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Ravnice	HRV	43.4167	16.7000	0.99
Omis	HRV	43.4333	16.7000	0.99
Malinska	HRV	45.1167	14.5167	0.96
Cavtat	HRV	42.5667	18.2167	1.03
Kastel Sucurac	HRV	43.5500	16.4167	1.00
Solin	HRV	43.5333	16.4667	1.00
Krk	HRV	45.0167	14.5833	0.98
Porec	HRV	45.2333	13.6000	0.96
Novigrad	HRV	45.3167	13.5667	0.96
Luka Mirna	HRV	45.3000	13.5667	0.96
Tar	HRV	45.3167	13.6000	1.26
Zadar	HRV	44.1167	15.2333	1.01
Vrsar	HRV	45.1500	13.6000	0.96
Rovinj	HRV	45.0833	13.6333	0.96
Pula	HRV	44.8833	13.8333	1.06
Ugljan	HRV	44.1333	15.1167	0.99
Vranjic	HRV	43.5000	16.4500	0.97
Split	HRV	43.5000	16.4500	0.97
Trogir	HRV	43.5167	16.2500	0.98
Brbinj	HRV	44.0667	14.9833	0.97
Brijuni	HRV	44.9000	13.7833	0.91
Rab	HRV	44.7500	14.7667	0.99
Ploce	HRV	43.0333	17.4167	1.00
Merag	HRV	44.9833	14.4333	0.63
Beli	HRV	45.1000	14.3667	0.63
Valbiska	HRV	45.0500	14.4667	0.63
Sibenik	HRV	43.7333	15.9000	0.99
Primosten	HRV	43.6833	15.9500	0.99
Bol	HRV	43.2500	16.6500	0.91
Korcula	HRV	42.8000	17.1333	0.81
Budava	HRV	44.9000	13.9833	0.78
Dugi Rat	HRV	43.4500	16.6500	0.95
Supetar	HRV	43.3833	16.5500	0.95
Gradac	HRV	44.9667	14.1000	0.53
Mali Losinj	HRV	44.5333	14.4667	0.51
Veli Rat	HRV	44.1500	14.8167	0.52
Sali	HRV	43.9167	15.1667	0.52
Milna	HRV	43.3167	16.4500	0.51
Hvar	HRV	43.2667	16.4500	0.51
Stari Grad	HRV	43.2000	16.5500	0.53
Vela Luka	HRV	42.9833	16.6167	0.53
Komiza	HRV	43.0333	16.0833	0.54
Brna	HRV	42.9000	16.8500	0.57
Lastovo	HRV	42.7667	16.9000	0.58
Ubli	HRV	42.7333	16.8167	0.58
Galway	IRL	53.2667	-9.0500	1.25
Dungarvan	IRL	52.0833	-7.6000	1.23
Castletownbere	IRL	51.6500	-9.9000	1.27
Whitegate	IRL	51.8333	-8.2500	1.29
Ventry	IRL	52.1167	-10.2000	1.21
Dingle	IRL	52.1333	-10.2667	1.21

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Waterford	IRL	52.1167	-6.9167	1.18
Skull	IRL	51.5167	-9.5333	1.16
Youghal	IRL	51.9333	-7.8333	1.14
Cahirciveen	IRL	51.9667	-10.3333	1.24
Valentia	IRL	51.9333	-10.3000	1.24
Baltimore(IRL)	IRL	51.4500	-9.4000	1.19
Haifa	ISR	32.8167	35.0000	1.10
Tel Aviv	ISR	32.1000	34.7833	1.08
Ashkelon	ISR	31.6667	34.5500	1.13
Hadera	ISR	32.4500	34.9167	1.16
Akko	ISR	32.9167	35.0667	1.23
San Remo	ITA	43.8167	7.7833	0.91
Portofino	ITA	44.3000	9.2333	1.02
Santa Margherita(ITA)	ITA	44.3333	9.2167	1.02
Marina di Carrara	ITA	44.0333	10.0500	0.93
Cesenatico	ITA	44.2000	12.4000	1.09
Lavagna	ITA	44.3000	9.3500	0.88
Sestri Levante	ITA	44.2667	9.3833	0.88
Monfalcone	ITA	45.7833	13.5500	1.02
Cattolica	ITA	43.9500	12.7333	1.04
Genoa	ITA	44.4167	8.9167	0.89
Trieste	ITA	45.6500	13.8000	0.99
Muggia	ITA	45.6000	13.7500	0.99
Pesaro	ITA	43.9167	12.9000	1.02
La Spezia	ITA	44.1167	9.8333	0.82
Portovenere	ITA	44.0500	9.8333	0.82
Senigallia	ITA	43.7000	13.0500	0.98
Formia	ITA	41.2500	13.6000	0.85
Falconara	ITA	43.6667	13.4000	0.95
Marano	ITA	45.4333	12.3500	0.96
Venice	ITA	45.4333	12.3333	0.96
Pellestrina	ITA	45.2667	12.3000	0.96
Savona	ITA	44.3000	8.4833	0.85
Chioggia	ITA	45.2167	12.2833	0.96
Porto Levante	ITA	45.0667	12.3667	0.96
Viareggio	ITA	43.8667	10.2500	0.87
Giulianova	ITA	42.7500	13.9667	0.92
Amalfi	ITA	40.6333	14.6000	0.78
Ventimiglia	ITA	43.7833	7.6000	0.73
Bordighera	ITA	43.7833	7.6667	0.73
Porto Garibaldi	ITA	44.6833	12.2333	0.95
San Benedetto del Tronto	ITA	42.9500	13.8833	0.92
Ravenna	ITA	44.4167	12.4500	0.94
Ameglia	ITA	44.0667	9.9667	0.81
Rimini	ITA	44.0667	12.5833	0.90
Salerno	ITA	40.6833	14.7667	0.79
Vada	ITA	43.3500	10.4500	0.81
Leghorn	ITA	43.5500	10.3167	0.80
Vasto	ITA	42.1000	14.7167	0.86
Monopoli	ITA	40.9500	17.3000	0.85
Bagnara Calabra	ITA	38.2667	15.8000	0.77

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Fano	ITA	43.8500	13.0167	0.69
Talamone	ITA	42.5500	11.1333	0.82
Vieste	ITA	41.8667	16.1833	0.92
Pietra Ligure	ITA	44.1500	8.2833	0.38
Follonica	ITA	42.9167	10.7500	0.81
Portiglione	ITA	42.8833	10.7667	0.81
Terracina	ITA	41.2833	13.2500	0.78
Ancona	ITA	43.6172	13.5117	0.65
Torre Annunziata	ITA	40.7500	14.4500	0.78
Torre del Greco	ITA	40.7833	14.3667	0.78
Castellammare di Stabia	ITA	40.7000	14.4833	0.78
Imperia	ITA	43.8833	8.0333	0.42
Naples	ITA	40.8500	14.2667	0.80
Fiumicino	ITA	41.7667	12.2333	0.78
Ostia	ITA	41.7167	12.3000	0.78
Bari	ITA	41.1333	16.8833	0.84
Civitavecchia	ITA	42.1000	11.8000	0.75
Portici	ITA	40.8167	14.3333	0.84
Termoli	ITA	42.0000	15.0000	0.62
Ortona	ITA	42.3500	14.4167	0.65
Pescara	ITA	42.4667	14.2333	0.65
Corigliano	ITA	39.6667	16.5167	0.86
Santa Teresa Gallura	ITA	41.2333	9.1667	0.64
Molfetta	ITA	41.2167	16.6333	0.86
Tremiti Is.	ITA	42.1167	15.5000	0.60
Manfredonia	ITA	41.6167	15.9167	0.94
Barletta	ITA	41.3167	16.2667	0.58
Trani	ITA	41.2833	16.4167	0.58
Acciaroli	ITA	40.1667	15.0167	0.80
Pozzuoli	ITA	40.8167	14.1167	0.80
Bagnoli	ITA	40.8000	14.1667	0.80
Baia	ITA	40.8167	14.0833	0.80
Procida	ITA	40.7833	14.0333	0.80
Catania	ITA	37.5167	15.1000	0.85
Arbatax	ITA	39.9333	9.7000	0.80
Alghero	ITA	40.5667	8.3167	0.70
Porto Cervo	ITA	41.1333	9.5500	0.55
Golfo Aranci	ITA	41.0000	9.6167	0.55
Olbia	ITA	40.9167	9.5667	0.58
Capraia Is.	ITA	43.0500	9.9000	0.56
Sarroch	ITA	39.0833	9.0333	0.76
Santa Liberata	ITA	42.4167	11.1500	0.56
Porto Santo Stefano	ITA	42.4500	11.1167	0.56
Porto Torres	ITA	40.8333	8.4000	0.60
Giglio Is.	ITA	42.3667	10.9167	0.59
Vallone	ITA	42.7000	10.4000	0.61
Palau(ITA)	ITA	41.1833	9.3833	0.75
La Maddalena	ITA	41.2167	9.4000	0.75
Portoferraio	ITA	42.8167	10.3333	0.64
Rio Marina	ITA	42.8167	10.4333	0.64
Porto Azzurro	ITA	42.7667	10.4000	0.64

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Vibo Valentia	ITA	38.7167	16.1333	0.84
Cagliari	ITA	39.2000	9.0833	0.85
Santa Giusta	ITA	39.8833	8.6167	1.04
Porto Vesme	ITA	39.2000	8.4000	0.65
Sant' Antioco	ITA	39.0333	8.4333	0.65
Portoscuso	ITA	39.2167	8.3667	0.65
Carloforte	ITA	39.1500	8.3167	0.65
Taranto	ITA	40.4500	17.2000	0.72
Gallipoli	ITA	40.0500	18.0000	0.93
Piombino	ITA	42.9333	10.5500	0.67
Otranto	ITA	40.1500	18.5000	0.71
Anzio	ITA	41.4500	12.6333	0.65
Brindisi	ITA	40.6500	17.9833	0.74
Oristano	ITA	39.8667	8.5500	0.84
Gaeta	ITA	41.2167	13.5833	0.70
Ciro Marina	ITA	39.3667	17.1333	0.75
Crotone	ITA	39.0833	17.1333	0.75
Agropoli	ITA	40.3333	14.9667	0.70
Marina di Catanzaro	ITA	38.8167	16.6167	0.91
Capri	ITA	40.5500	14.2500	0.71
Positano	ITA	40.6167	14.4667	0.71
Sorrento	ITA	40.6333	14.3833	0.71
Ponza	ITA	40.9000	12.9667	0.74
Porto d'Ischia	ITA	40.7333	13.9500	0.74
Casamicciola Terme	ITA	40.7500	13.9000	0.74
Palermo	ITA	38.1167	13.3667	0.88
Gela	ITA	37.0667	14.2500	0.80
Torregrotta	ITA	38.2000	15.3667	0.92
Porto Empedocle	ITA	37.2833	13.5333	0.87
Marsala	ITA	37.8000	12.4333	0.76
Favignana	ITA	37.9333	12.3333	0.76
Reggio di Calabria	ITA	38.1167	15.6500	0.79
Messina	ITA	38.2000	15.5667	0.79
Villa San Giovanni	ITA	38.2167	15.6333	0.79
Pantelleria	ITA	36.7833	12.0000	0.76
Marzamemi	ITA	36.7500	15.1167	0.76
Avola	ITA	36.9000	15.1500	0.76
Licata	ITA	37.1000	13.9333	0.85
Santa Panagia	ITA	37.1167	15.2667	0.77
Siracusa	ITA	37.0500	15.3000	0.77
Capo San Vito	ITA	38.2000	12.7167	0.82
Trapani	ITA	38.0333	12.5167	0.82
Porto Xifonio	ITA	37.2333	15.2333	0.78
Pozzallo	ITA	36.7167	14.8500	0.77
Castellammare del Golfo	ITA	38.0333	12.8833	0.83
Stromboli	ITA	38.8000	15.2500	0.84
Lipari	ITA	38.4667	14.9500	0.86
Vulcano	ITA	38.4167	14.9667	0.86
Taormina	ITA	37.8500	15.3000	0.82
Giardini	ITA	37.8333	15.2833	0.82
Panarea	ITA	38.6333	15.0667	0.85

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Riposto	ITA	37.7333	15.2167	0.98
Termini Imerese	ITA	37.9833	13.7000	0.87
Porticello	ITA	38.0833	13.5333	0.87
Salina	ITA	38.5667	14.8667	0.86
Rinella	ITA	38.5500	14.8333	0.86
Ustica	ITA	38.7000	13.1833	0.89
Mazara del Vallo	ITA	37.6500	12.5833	0.88
Sciacca	ITA	37.5000	13.0833	0.89
Gioia Tauro	ITA	38.4333	15.9000	0.97
Augusta	ITA	37.2000	15.2167	1.01
Linosa Is.	ITA	35.8667	12.8500	0.88
Lampedusa Is.	ITA	35.5000	12.6000	0.92
Milazzo	ITA	38.2167	15.2500	1.05
Ishikari	JPN	43.2500	141.3500	1.23
Kuji	JPN	40.1667	141.7833	1.18
Tamagawa	JPN	40.0833	141.8333	1.18
Kawauchi	JPN	41.1667	141.0000	1.20
Hachinohe	JPN	40.5333	141.5333	1.09
Mutsu Ogawara	JPN	40.9500	141.4167	1.05
Ofunato	JPN	38.9833	141.7500	1.02
Okuma	JPN	37.3833	140.9833	0.93
Tomioka	JPN	37.3333	141.0000	0.93
Hirono	JPN	37.2333	141.0167	0.93
Fukushima	JPN	41.4667	140.2667	0.84
Hikari	JPN	33.9500	131.9333	0.89
Kasado	JPN	33.9500	131.7833	0.89
Saganoseki	JPN	33.2500	131.8667	0.76
Seki Saki	JPN	33.2667	131.9000	0.76
Hitachi	JPN	36.4833	140.6333	1.29
Usuki	JPN	33.1333	131.8167	0.71
Tsukumi	JPN	33.0833	131.8667	0.71
Nagasu	JPN	33.5833	131.3667	0.87
Nagahama	JPN	33.6167	132.4833	1.27
Kamo	JPN	34.8500	138.7833	1.17
Yoshida	JPN	33.2667	132.5333	1.22
Uwajima	JPN	33.2167	132.5500	1.22
Kashima	JPN	35.9333	140.7000	1.18
Hagi	JPN	34.4000	131.4000	1.28
Owase	JPN	34.0667	136.2167	1.18
Hinase	JPN	34.7167	134.2500	1.09
Nanao	JPN	37.1000	137.0333	0.89
Shodoshima	JPN	34.5000	134.2500	1.09
Kannoura	JPN	33.5833	134.3000	1.18
Toyama Shinko	JPN	36.8000	137.0833	0.91
Fushiki	JPN	36.7833	137.0500	0.91
Fushiki-Toyama	JPN	36.7667	137.0833	0.91
Choshi	JPN	35.7333	140.6833	1.14
Hamada	JPN	34.8833	132.0333	1.23
Toyama	JPN	36.7500	137.2333	0.93
Ebisu	JPN	38.0833	139.4333	0.98
Esaki	JPN	34.6500	131.6500	0.93



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Niigata-Higashi	JPN	38.0000	139.2333	0.98
Himekawa	JPN	37.0333	137.8500	0.93
Tokai	JPN	36.4500	140.5833	0.53
Nakaminato	JPN	36.3500	140.6333	0.53
Tsukama	JPN	35.0000	138.5167	1.21
Takuma	JPN	34.2500	133.7000	1.02
Ieshima	JPN	34.6667	134.5000	1.06
Senzaki	JPN	34.4000	131.2000	1.28
Honai	JPN	33.4667	132.3833	1.25
Yawatahama	JPN	33.4500	132.4000	1.25
Arari	JPN	34.8167	138.7500	1.11
Shimizu	JPN	35.0167	138.5333	1.26
Susaki	JPN	33.3833	133.3000	1.24
Naoshima	JPN	34.4500	134.0000	1.02
Honura	JPN	34.4500	134.0000	1.02
Takamatsu	JPN	34.3500	134.0500	1.02
Tateyama	JPN	35.0000	139.8667	1.17
Kikuma	JPN	34.0333	132.8333	0.86
Kinoe	JPN	34.2167	132.9000	0.86
Namikata	JPN	34.1167	132.9667	0.86
Yutaka	JPN	34.1667	132.8333	0.86
Onishi	JPN	34.0500	132.9167	0.86
Hashihama	JPN	34.1000	132.9667	0.86
Saiki	JPN	32.9667	131.9167	1.21
Yoshiumi	JPN	34.1333	133.0333	0.90
Kinoura	JPN	34.2000	133.1333	0.90
Imabari	JPN	34.0667	133.0167	0.90
Saga	JPN	34.0667	133.0833	0.90
Sakito	JPN	33.0167	129.5500	1.15
Uchinomi	JPN	34.4667	134.3167	1.00
Oshima	JPN	33.4667	129.5333	1.22
Hososhima	JPN	32.4500	131.6667	1.20
Usunoura	JPN	33.2000	129.5833	1.23
Ainoura	JPN	33.1833	129.6500	1.23
Sukumo	JPN	32.9167	132.7167	1.18
Kanda	JPN	33.8000	131.0000	0.92
Tanoura	JPN	33.9667	130.9833	0.92
Ube	JPN	33.9333	131.2000	0.92
Niihama	JPN	33.9833	133.2833	0.94
Onahama	JPN	36.9333	140.9167	0.61
Tagonoura	JPN	35.1333	138.7000	1.26
Numazu	JPN	35.1333	138.8333	1.26
Nandan	JPN	34.2333	134.7000	0.97
Oppama	JPN	35.5667	135.2500	0.97
Tsuna	JPN	34.4167	134.9000	0.94
Sumoto	JPN	34.3333	134.8833	0.94
Uchiura	JPN	35.5333	135.5000	0.97
Takahama	JPN	35.5000	135.5333	0.97
Sakaiminato	JPN	35.5333	133.2500	0.87
Tanabe	JPN	33.7167	135.3500	1.21
Anan	JPN	33.9000	134.6667	1.28

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Matsuura	JPN	33.3500	129.7333	1.26
Arida	JPN	34.0833	135.1167	0.85
Shimotsu	JPN	34.1167	135.1333	0.85
Kainan	JPN	34.1500	135.1833	0.85
Wakayama	JPN	34.2000	135.1333	0.85
Kawanoe	JPN	34.0167	133.5333	0.96
Mishima-Kawanoe	JPN	34.0167	133.5667	0.96
Iwakuni	JPN	34.1667	132.2500	0.84
Kanokawa	JPN	34.1667	132.4333	0.84
Ogaki	JPN	34.1667	132.4500	0.84
Taura	JPN	35.3000	139.6333	1.24
Nobeoka	JPN	32.5833	131.7167	1.20
Tachibana	JPN	33.8833	134.7167	1.26
Urado	JPN	33.5000	133.5833	1.25
Kurihama	JPN	35.2167	139.7333	1.25
Yokosuka	JPN	35.2833	139.6833	1.25
Hamaoka	JPN	34.6333	138.1333	1.25
Matsuyama	JPN	33.8500	132.7000	0.82
Katsuura	JPN	33.6167	135.9500	1.16
Yura	JPN	33.9500	135.1000	1.29
Yokkaichi	JPN	34.9500	136.6500	0.94
Komenotsu	JPN	32.1000	130.3333	1.22
Futtsu	JPN	35.3000	139.8167	0.65
Uraga	JPN	35.2333	139.7333	0.65
Kisarazu	JPN	35.3667	139.8833	0.97
Hitakatsu	JPN	34.6833	129.4500	0.84
Taisha	JPN	35.4333	132.6667	0.92
Kushikino	JPN	31.7500	130.2667	1.22
Gotsu	JPN	35.0000	132.2167	0.93
Naruto	JPN	34.1833	134.6167	0.95
Komatsushima	JPN	34.0000	134.6000	0.95
Tokushima	JPN	34.0500	134.6000	0.95
Usami	JPN	35.0000	139.1000	0.69
Tsu	JPN	34.6833	136.5500	0.93
Nango	JPN	31.5167	131.3667	1.21
Aburatsu	JPN	31.5667	131.4000	1.21
Ikata	JPN	33.4833	132.3500	0.83
Kawanoishi	JPN	33.4833	132.3833	0.83
Toba	JPN	34.4833	136.8500	0.92
Miura	JPN	35.1333	139.6167	0.72
Makurazaki	JPN	31.2667	130.3000	1.19
Atsumi	JPN	34.6667	137.0667	0.91
Tsutsu	JPN	34.1167	129.1833	0.91
Izuhara	JPN	34.1833	129.3000	0.91
Toyohashi	JPN	34.7167	137.3167	0.90
Miyazaki	JPN	31.8833	131.4500	1.29
Shibushi	JPN	31.4667	131.1167	1.26
Yaizu	JPN	34.8667	138.3333	0.87
Oigawa	JPN	34.7833	138.3000	0.87
Misaki	JPN	33.3833	132.1333	0.88
Omaezaki	JPN	34.6000	138.2333	0.92

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Nagashima	JPN	34.1833	136.3500	0.97
Shimoda	JPN	34.6667	138.9500	0.91
Moji	JPN	33.9500	130.9667	1.09
Kokura	JPN	33.9000	130.9000	1.09
Shimonoseki	JPN	33.9333	130.9333	1.09
Mutsure	JPN	33.9667	130.8667	1.09
Nagasaki	JPN	32.7167	129.8333	1.03
Udono	JPN	33.7333	136.0167	1.01
Kamigoto	JPN	32.9833	129.0667	1.06
Matsushima	JPN	32.9333	129.6000	1.05
Oseto	JPN	32.9333	129.6500	1.05
Kuchinotsu	JPN	32.6000	130.2000	1.07
Reihoku	JPN	32.5000	130.0333	1.07
Shingu	JPN	33.7000	136.0000	1.08
Kiire	JPN	31.3833	130.5500	1.26
Sokcho	KOR	38.2333	128.5500	0.99
Boryoung	KOR	35.3333	126.4667	1.13
Donghae	KOR	37.5136	129.1203	0.67
Samchok	KOR	37.4842	129.1239	0.67
Okke	KOR	37.5000	129.0833	0.67
Mukho	KOR	37.5492	129.1086	0.67
Seogwipo	KOR	33.2333	126.5667	1.20
Onsan	KOR	35.4500	129.3667	0.62
Okpo	KOR	34.8833	128.7167	0.69
Jeju	KOR	33.5167	126.5500	0.89
Chekka	LBN	34.3333	35.7333	0.87
Tripoli(LBN)	LBN	34.4667	35.8333	0.91
Enfeh	LBN	34.3500	35.7333	0.91
Amchite	LBN	34.1500	35.6167	0.92
Jbeil	LBN	34.1000	35.6333	0.92
Jounieh	LBN	33.9833	35.6500	0.97
Dbayeh	LBN	33.9333	35.5833	0.97
Beirut	LBN	33.9000	35.5167	0.97
Ouzai	LBN	33.8333	35.4833	1.07
Khalde	LBN	33.8000	35.4833	1.07
Ras el Hilal	LBY	32.9167	22.1833	0.93
Mellitah	LBY	32.8833	12.2500	0.98
Az Zawiyah	LBY	32.8167	12.7167	0.98
Abu Kammash	LBY	33.0667	11.8167	1.02
Derna	LBY	32.7667	22.6500	0.97
Tobruk	LBY	32.0833	23.9833	1.00
Ras Lanuf	LBY	30.5167	18.5667	1.07
Rasco Hbr.	LBY	30.5333	18.6000	1.07
Bardia	LBY	31.7500	25.1167	1.02
Khoms	LBY	32.6500	14.2667	1.14
Sirte	LBY	31.2167	16.5833	1.18
Misurata	LBY	32.3667	15.2333	1.18
Benghazi	LBY	32.1167	20.0500	1.21
Zueitina Term.	LBY	30.8500	20.0500	1.25
Ras el Mungar	LBY	31.1833	20.1000	1.26
Marsa el Brega	LBY	30.4167	19.5833	1.28

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Essaouira	MAR	31.5000	-9.7833	0.38
Tangier	MAR	35.7833	-5.8000	0.17
Al Hoceima	MAR	35.2500	-3.9000	0.35
Nador	MAR	35.2667	-2.9167	0.50
Larache	MAR	35.2000	-6.1500	0.57
Tan Tan	MAR	28.5000	-11.3500	0.39
Casablanca	MAR	33.6167	-7.6000	0.44
Rabat	MAR	34.0333	-6.8333	0.43
Mehdia	MAR	34.3000	-6.6500	0.43
Agadir	MAR	30.4167	-9.6333	0.51
El Jadida	MAR	33.2667	-8.5167	0.52
Mohammedia	MAR	33.7167	-7.3667	0.63
Safi	MAR	32.3000	-9.2500	0.68
Jorf Lasfar	MAR	33.1167	-8.6333	0.72
Sidi Ifni	MAR	29.3667	-10.2000	0.65
Tarfaya	MAR	27.9333	-12.9333	1.20
Monte Carlo	MCO	43.7333	7.4167	0.78
Morro Redondo	MEX	28.0500	-115.1833	0.20
El Sauzal	MEX	31.8833	-116.6833	0.29
Ensenada(MEX)	MEX	31.8500	-116.6333	0.41
Mulege	MEX	26.8833	-111.9500	1.29
Mgarr	MLT	36.0167	14.3000	0.84
Gozo Is.	MLT	36.0667	14.2167	0.85
St. Paul's Bay	MLT	35.9500	14.4000	0.88
Valletta	MLT	35.9000	14.5167	0.89
Marsaxlokk	MLT	35.8167	14.5667	0.89
Cap Blanc	MRT	20.7667	-17.0500	0.36
Pointe des Mouettes	MRT	20.8333	-17.0333	0.36
Point Central	MRT	20.8167	-17.0333	0.36
Nouadhibou	MRT	20.9000	-17.0500	0.36
Port de L'Amitie	MRT	18.0000	-16.0333	1.12
Nouakchott	MRT	18.0333	-16.0333	1.12
Budva	MTG	42.2833	18.8500	1.11
Herceg Novi	MTG	42.4500	18.5333	1.19
Zelenika	MTG	42.4500	18.5833	1.25
Bar	MTG	42.0833	19.0833	1.05
Ulcinj	MTG	41.9167	19.2000	0.74
Petrovac	MTG	42.2000	18.9167	0.74
Luderitz	NAM	-26.6333	15.1500	0.26
Walvis Bay	NAM	-22.9500	14.5000	0.24
Oranjemund	NAM	-28.5667	16.3667	0.26
Flushing	NLD	51.4500	3.5833	1.19
Breskens	NLD	51.4000	3.5667	1.19
Tarakohe	NZL	-40.8500	172.9000	1.26
Timaru	NZL	-44.3833	171.2500	1.25
Southport(NZL)	NZL	-46.6000	168.3500	1.24
Tiwai Point	NZL	-46.6000	168.4000	1.24
Bluff	NZL	-46.6167	168.3667	1.24
Christchurch	NZL	-43.5500	172.6667	1.03
Nelson(NZL)	NZL	-41.2667	173.3167	1.01
Picton(NZL)	NZL	-41.2667	174.0000	0.84

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Wellington	NZL	-41.2833	174.7667	0.97
Lyttelton	NZL	-43.6167	172.7167	1.03
Wanganui	NZL	-39.9500	175.0000	0.57
New Plymouth	NZL	-39.0667	174.0833	0.57
Westport(NZL)	NZL	-41.7333	171.5833	0.53
Greymouth	NZL	-42.4333	171.2167	0.55
Napier	NZL	-39.4833	176.9167	0.45
Gisborne	NZL	-38.6833	178.0333	0.41
Opuia	NZL	-35.3000	174.1333	0.97
Onehunga	NZL	-36.9333	174.7667	0.00
Auckland	NZL	-36.8500	174.8000	0.00
Whakatane	NZL	-37.9500	177.0000	0.16
Tauranga	NZL	-37.6500	176.1667	0.17
Mount Maunganui	NZL	-37.6833	176.2333	0.19
Callao	PER	-12.0500	-77.1500	0.24
Chancay	PER	-11.6000	-77.2833	0.23
Puerto Bayovar	PER	-5.7833	-81.0500	0.34
La Pampilla	PER	-11.9333	-77.1833	0.53
Ancon	PER	-11.7833	-77.1833	0.53
Atico	PER	-16.2167	-73.7167	0.56
Cerro Azul	PER	-13.0500	-76.5167	0.58
Conchan	PER	-12.2500	-76.9333	0.64
Oquendo	PER	-11.9667	-77.1167	0.63
San Nicolas(PER)	PER	-15.2333	-75.2333	0.63
San Juan(PER)	PER	-15.3500	-75.1833	0.64
Huarmey	PER	-10.0833	-78.1500	0.69
Ilo	PER	-17.6333	-71.3500	0.69
Paramonga	PER	-10.7000	-77.8333	0.70
Supé	PER	-10.8333	-77.7333	0.70
Negritos	PER	-4.6500	-81.3167	0.73
Talara	PER	-4.5667	-81.2833	0.73
Huacho	PER	-11.1333	-77.6167	0.71
Matarani	PER	-16.9833	-72.1167	0.76
Salaverry	PER	-8.2333	-79.0000	0.76
General San Martin	PER	-13.8333	-76.2667	0.82
Chimbote	PER	-9.0833	-78.6333	0.89
Coisco	PER	-9.0167	-78.6167	0.89
Los Organos	PER	-4.1667	-81.1333	0.94
Cabo Blanco	PER	-4.2667	-81.2500	0.94
Chicama	PER	-7.7000	-79.4167	0.97
Mollendo	PER	-17.0167	-72.0333	1.03
Pacasmayo	PER	-7.4000	-79.6000	1.21
Porto Santo	PMD	33.0500	-16.3333	0.53
Ponta Delgada(PMD)	PMD	32.8167	-17.0000	0.55
Madeira	PMD	32.6667	-16.9167	0.57
Funchal	PMD	32.6333	-16.9000	0.57
Kosong(PRK)	PRK	38.6000	128.3500	1.01
Viana do Castelo	PRT	41.6833	-8.8333	0.57
Peniche	PRT	39.3667	-9.3833	0.39
San Martinho	PRT	39.5167	-9.1500	0.36
Leixoes	PRT	41.1833	-8.7167	0.34

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Cascais	PRT	38.6833	-9.4167	0.42
Sines	PRT	37.9500	-8.8667	0.39
Aveiro	PRT	40.6500	-8.7500	0.35
Figueira da Foz	PRT	40.1500	-8.8667	0.41
Lagos(PRT)	PRT	37.0833	-8.6667	0.37
Praia da Graciosa	PRT	39.0500	-27.9667	0.31
Praia da Vitoria	PRT	38.7333	-27.0500	0.30
Graciosa Is.	PRT	39.0500	-28.0500	0.31
Terceira Is.	PRT	38.7167	-27.2167	0.31
Angra do Heroismo	PRT	38.6500	-27.2167	0.31
Velas	PRT	38.6667	-28.2167	0.36
San Jorge Is.	PRT	38.6667	-28.0500	0.36
Fayal	PRT	38.5833	-28.7000	0.37
Horta	PRT	38.5333	-28.6333	0.37
Corvo Is.	PRT	39.6667	-31.1167	0.38
Flores Is.	PRT	39.5000	-31.2167	0.38
Portimao	PRT	37.1333	-8.5333	0.97
Albufeira	PRT	37.0833	-8.2500	0.53
Faro	PRT	37.0167	-7.9167	0.60
Olhao	PRT	37.0167	-7.8333	0.60
Pico Is.	PRT	38.4667	-28.3000	0.39
St. Michael's	PRT	37.7333	-25.6667	0.39
Ponta Delgada(AZO)	PRT	37.7333	-25.6667	0.39
Setubal	PRT	38.5000	-8.9167	0.58
Sesimbra	PRT	38.4333	9.1000	0.65
Vila do Porto	PRT	36.9333	-25.1500	0.45
Canical	PRT	32.7333	-16.7333	0.54
Tristan da Cunha	SHN	-37.0333	-12.3000	0.53
Jamestown(SHN)	SHN	-15.9167	-5.7167	1.12
Piran	SVN	45.5333	13.5667	1.06
Izola	SVN	45.5500	13.6667	1.06
Portoroz	SVN	45.5167	13.5833	1.06
Koper	SVN	45.5547	13.7414	0.99
Arwad Is.	SYR	34.8500	35.8500	1.07
Tartous	SYR	34.9000	35.8667	1.07
Lattakia	SYR	35.5167	35.7667	1.19
Borj Islam	SYR	35.6667	35.8000	1.19
Bizerta	TUN	37.2667	9.8833	0.63
Galita Is.	TUN	37.5333	8.9333	0.65
Tabarka	TUN	36.9667	8.7667	0.91
Cap Bon	TUN	37.0833	11.0500	0.74
Kelibia	TUN	36.8333	11.0833	0.76
Rades	TUN	36.8000	10.2333	0.86
La Goulette	TUN	36.8167	10.3000	0.86
Sousse	TUN	35.8333	10.6500	0.90
Ras Dimasse	TUN	35.5833	11.0167	0.91
Zarzis	TUN	33.5000	11.1167	1.12
Ajim	TUN	33.7167	10.7333	1.15
Sfax	TUN	34.7333	10.7667	1.13
Gabes	TUN	33.9500	10.0667	1.18
La Skhira	TUN	34.2333	10.0667	1.25

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Erdek	TUR	40.4000	27.7833	1.05
Ambarli	TUR	40.9667	28.7000	1.21
Marport	TUR	40.9667	28.6667	1.21
Kumport	TUR	40.9667	28.6833	1.21
Yalova	TUR	40.6667	29.2500	1.05
Eregli(Sea of Marmara)	TUR	40.9667	27.9667	1.10
Yarimca	TUR	40.7333	29.7667	1.05
Tutunciftlik	TUR	40.7500	29.7833	1.05
Igsas	TUR	40.7500	29.7500	1.05
Zeytinburnu	TUR	40.7500	29.7667	1.05
Derince	TUR	40.7500	29.8167	1.05
Golcuk	TUR	40.7167	29.8000	1.05
Tekirdag	TUR	40.9500	27.5000	1.02
Edincik	TUR	40.3500	27.8667	1.02
Bandirma	TUR	40.3500	27.9667	1.02
Saraylar	TUR	40.6500	27.6667	0.95
Silivri	TUR	41.0500	28.2667	1.11
Gemlik	TUR	40.4333	29.1500	1.06
Uskudar	TUR	41.0167	29.0167	1.05
Diliskelesi	TUR	40.7667	29.5333	1.02
Hereke	TUR	40.7000	29.6167	1.02
Tavsancil	TUR	40.7833	29.5833	1.02
Mudanya	TUR	40.4500	28.8667	1.06
Karabiga	TUR	40.4000	27.3000	0.74
Istanbul	TUR	41.0000	28.9667	1.10
Cekmece	TUR	40.9833	28.5500	1.10
Pendik	TUR	40.9000	29.2500	1.03
Kartal	TUR	40.8833	29.1833	1.03
Karacabey	TUR	40.2333	28.3667	1.06
Darica	TUR	40.7500	29.3833	1.01
Gebze	TUR	40.7667	29.4333	1.01
Tuzla	TUR	40.8092	29.3481	1.01
Haydarpasa	TUR	41.0000	29.0167	1.05
Maltepe	TUR	40.9000	29.1500	1.05
Izmit	TUR	40.7667	29.9167	1.05
Yenikoy	TUR	40.7333	29.9000	1.05
Icdas	TUR	40.4500	27.1333	0.98
Gelibolu	TUR	40.4167	26.6833	1.03
Canakkale	TUR	40.1500	26.4167	0.96
Kepez	TUR	40.1058	26.3781	0.96
Kas	TUR	36.2000	29.6333	1.00
Kabatepe	TUR	40.2000	26.2000	0.40
Edremit	TUR	39.5833	26.9500	1.02
Akcay	TUR	39.5833	26.9000	1.02
Gokceada	TUR	40.2000	25.9000	0.42
Bozcaada	TUR	39.8333	26.0667	0.36
Ayvalik	TUR	39.3167	26.7167	0.34
Dikili	TUR	39.0833	26.8833	1.03
Dortyol	TUR	36.8333	36.2333	1.21
Payas	TUR	36.7500	36.1833	1.22
Antalya	TUR	36.8333	30.6167	1.08

<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Kusadasi	TUR	37.8667	27.2333	0.98
Camalti	TUR	38.5000	26.8833	1.06
Finike	TUR	36.3000	30.1500	1.00
Nemrut Bay	TUR	38.7500	26.9167	0.46
Cesme	TUR	38.3167	26.3000	0.49
Gokova	TUR	37.0500	28.3667	1.17
Fethiye	TUR	36.6333	29.1000	1.04
Aliaga	TUR	38.8000	26.9833	1.08
Izmir	TUR	38.4333	27.1333	1.12
Alanya	TUR	36.5333	32.0000	1.00
Gocek	TUR	36.7500	28.9833	1.07
Anamur	TUR	36.0167	32.8167	1.07
Bodrum	TUR	37.0333	27.4167	0.68
Marmaris	TUR	36.8500	28.2667	1.17
Gulluk	TUR	37.2500	27.6333	1.16
Mersin	TUR	36.8000	34.6333	1.15
Yumurtalik	TUR	36.7667	35.7500	1.19
Sugozu	TUR	36.8667	35.9500	1.23
Ceyhan	TUR	36.8833	35.9333	1.23
Toros Gubre	TUR	36.9167	35.9833	1.23
Jinmen Is.	TWN	24.4500	118.3833	1.18
La Paloma	URY	-34.6500	-54.1500	0.82
Punta del Este	URY	-34.9667	-54.9500	0.57
Maldonado	URY	-34.9500	-54.9500	0.57
Piriapolis	URY	-34.8667	-55.2667	0.66
Montevideo	URY	-34.9000	-56.2667	0.85
Juan Lacaze	URY	-34.4333	-57.4167	1.08
Colonia	URY	-34.4667	-57.8500	1.00
Nueva Palmira	URY	-33.8833	-58.4167	0.98
Westport(WA USA)	USA	46.8833	-124.1000	1.25
Longview	USA	46.1333	-122.9333	1.22
Rainier	USA	46.0833	-122.9333	1.22
Mukilteo	USA	47.9500	-122.3000	1.18
Everett(WA)	USA	47.9833	-122.2167	1.18
Port Townsend	USA	48.1167	-122.7500	1.15
Tacoma	USA	47.2500	-122.4167	1.18
Port Gamble	USA	47.8667	-122.5833	1.13
Edmonds	USA	47.8167	-122.3667	1.10
Point Wells	USA	47.7833	-122.4000	1.10
Seattle	USA	47.6333	-122.3333	1.09
Monterey	USA	36.6000	-121.8833	1.18
Sparrow's Point	USA	39.20	-76.47	1.00
Moss Landing	USA	36.8000	-121.7833	0.44
Gaviota	USA	34.4667	-120.2333	0.45
Elwood	USA	34.4333	-119.8833	0.32
Carpinteria	USA	34.4333	-119.6167	0.41
Santa Barbara	USA	34.4000	-119.6833	0.33
Esteros Bay	USA	35.4000	-120.8833	0.27
Morro Bay	USA	35.3667	-120.8500	0.67
Avila	USA	35.1667	-120.7333	0.22
Port San Luis	USA	35.1667	-120.7500	0.22



<b>Global Port</b>	<b>Country</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Environmental Distance</b>
Los Angeles	USA	33.7167	-118.2667	0.21
San Pedro(CA USA)	USA	33.7167	-118.2500	0.21
Oceanside	USA	33.2000	-117.3833	0.17
Ventura	USA	34.2667	-119.3000	0.22
Port Hueneme	USA	34.1525	-119.2036	0.74
Newport Beach	USA	33.6167	-117.9167	0.82
Manteo	USA	35.9000	-75.5833	0.94
San Clemente	USA	33.4333	-117.6000	0.44
Marina del Rey	USA	33.9667	-118.4333	0.74
El Segundo	USA	33.9000	-118.4500	0.50
Chula Vista	USA	32.6333	-117.0833	1.18
San Diego	USA	32.7053	-117.1378	1.24
Wilmington(NC USA)	USA	34.2333	-77.9500	1.19
Long Beach	USA	33.7500	-118.2167	0.71
Wilmington(CA USA)	USA	33.7667	-118.2667	0.71
Pass Christian	USA	30.3000	-89.2333	1.26
Brunswick	USA	31.1333	-81.4833	1.20
Beaufort	USA	32.4333	-80.6667	1.29
Port Royal(USA)	USA	32.3833	-80.7000	1.29
Southport(USA)	USA	33.9167	-78.0000	1.17
Morehead City	USA	34.7167	-76.7000	1.26
La Guaira	VEN	10.6000	-66.9333	1.20
Saldanha Bay	ZAF	-33.0500	17.9333	0.78
Dassen Is.	ZAF	-33.4167	18.0833	0.65
Cape Town	ZAF	-33.9167	18.4333	0.64
Robben Is.	ZAF	-33.8000	18.3667	0.64
Cape of Good Hope	ZAF	-34.3500	18.4667	0.40
Port Nolloth	ZAF	-29.2500	16.8667	0.25
Simonstown	ZAF	-34.1833	18.4333	0.08
Mossel Bay	ZAF	-34.1833	22.1667	0.37
Port Elizabeth	ZAF	-33.9667	25.6333	0.53
Bird Is.	ZAF	-33.8167	26.2833	0.57
Ngqura	ZAF	-33.7833	25.6833	0.63
East London	ZAF	-33.0333	27.9167	0.96

Appendix L. Potential fouling NIS with high impact globally found at ports connected to Atlantic top ports.

Species	Higher taxa	Ports															
		SA <sub>1</sub>	BC <sub>2</sub>	CW <sub>3</sub>	SP <sub>4</sub>	IG <sub>5</sub>	MA <sub>6</sub>	NH <sub>7</sub>	BH <sub>8</sub>	RL <sub>9</sub>	SS <sub>10</sub>	YA <sub>11</sub>	MU <sub>12</sub>	DH <sub>13</sub>	SI <sub>14</sub>	SJ <sub>15</sub>	PC <sub>16</sub>
<i>Acrothamnion preissii</i>	Plant												X	X			
<i>Aglaothamnion halliae</i>	Algae	X											X	X		X	
<i>Alitta succinea</i>	Annelid												X	X			
<i>Anadara inaequalis</i>	Mollusc												X	X			
<i>Antithamnionella ternifolia</i>	Algae	X											X	X		X	
<i>Asparagopsis armata</i>	Plant												X	X		X	
<i>Balanus improvisus</i>	Crustacean	X											X	X		X	
<i>Botryllus schlosseri</i>	Tunicate	X		X				X	X				X	X		X	
<i>Botrylloides violaceus</i>	Tunicate	X		X	X		X	X	X			X	X	X	X	X	
<i>Brachidontes pharaonis</i>	Mollusc												X	X			
<i>Carijoa riisei</i>	Cnidarian	X												X			
<i>Caulerpa racemosa var. cylindracea</i>	Plant												X	X			
<i>Cellana rota</i>	Mollusc												X	X			
<i>Cerithium scabridum</i>	Mollusc												X	X			
<i>Ciona intestinalis</i>	Tunicate	X											X	X		X	
<i>Cladophora sericea</i>	Algae	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Codium fragile spp tomentosoides</i>	Algae	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
<i>Codium webbiana</i>	Algae	X											X	X		X	
<i>Corbula gibba</i>	Mollusc	X											X	X		X	
<i>Cordylophora caspia</i>	Cnidarian	X		X									X	X		X	
<i>Crassostrea gigas</i>	Mollusc	X											X	X		X	
<i>Crepidula fornicata</i>	Mollusc	X											X	X		X	
<i>Didemnum vexillum</i>	Ascidian	X		X				X	X				X	X		X	
<i>Dreissena polymorpha</i>	Mollusc	X	X	X		X	X			X	X		X	X	X	X	
<i>Drymonema dalmatinum</i>	Cnidarian	X		X									X	X			
<i>Elminius modestus</i>	Crustacean	X											X	X		X	
<i>Eriocheir sinensis</i>	Crustacean	X											X	X		X	
<i>Ficopomatus enigmaticus</i>	Annelid	X		X									X	X		X	
<i>Fucus evanescens</i>	Aglae	X											X	X		X	
<i>Garveia franciscana</i>	Cnidarian	X											X	X			
<i>Geukensia demissa</i>	Mollusc												X	X			

Species	Higher taxa	Ports															
		SA <sub>1</sub>	BC <sub>2</sub>	CW <sub>3</sub>	SP <sub>4</sub>	IG <sub>5</sub>	MA <sub>6</sub>	NH <sub>7</sub>	BH <sub>8</sub>	RL <sub>9</sub>	SS <sub>10</sub>	YA <sub>11</sub>	MU <sub>12</sub>	DH <sub>13</sub>	SI <sub>14</sub>	SJ <sub>15</sub>	PC <sub>16</sub>
<i>Hemimysis anomala</i>	Crustacean	X										X	X				
<i>Hydroides elegans</i>	Echinoderm	X										X	X		X		
<i>Hydroides ezoensis</i>	Annelid	X										X	X		X		
<i>Hydroides operculatus</i>	Annelid											X	X				
<i>Hypnea musciformis</i>	Algae	X										X	X				
<i>Lophocladia lallemandii</i>	Algae											X	X				
<i>Lyrodus medilobatus</i>	Mollusc	X										X	X				
<i>Maeotias marginata</i>	Cnidarian	X										X	X		X		
<i>Membranipora membranacea</i>	Bryozoan	X		X				X	X			X	X		X		
<i>Mytella charruana</i>	Mollusc	X										X	X				
<i>Mytilicola orientalis</i>	Annelid	X										X	X		X		
<i>Mytilopsis sallei</i>	Mollusc												X				
<i>Perna viridis</i>	Mollusc	X										X	X				
<i>Phyllorhiza punctata</i>	Cnidarian	X										X	X				
<i>Polyandrocarpa zorritensis</i>	Tunicate											X	X				
<i>Pontogammarus robustoides</i>	Crustacean	X										X	X				
<i>Pseudopolydora paucibranchiata</i>	Annelid											X	X				
<i>Rapana venosa</i>	Mollusc (Snail)	X		X								X	X		X		
<i>Sabella spallanzanii</i>	Annelid	X															
<i>Sargassum muticum</i>	Algae	X										X	X		X		
<i>Sphaeroma terebrans</i>	Crustacean	X		X								X	X				
<i>Spirorbis marioni</i>	Annelid											X	X				
<i>Styela clava</i>	Tunicate	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
<i>Styopodium schimperi</i>	Algae											X	X				
<i>Synidotea laevidorsalis</i>	Crustacean	X		X								X	X				
<i>Teredo bartschi</i>	Mollusc	X		X								X	X				
<i>Tricellaria inopinata</i>	Bryozoan	X										X	X		X		
<i>Undaria pinnatifida</i>	Plant	X										X	X		X		
<i>Victorella pavida</i>	Bryozoan	X										X	X		X		
<i>Xenostrobus securis</i>	Mollusc											X	X				

**Abbreviations:** Saint John, New Brunswick<sup>1</sup>; Baie-Comeau, Québec<sup>2</sup>; Come By Chance-Whiffen Head, Newfoundland<sup>3</sup>; Saint-Pierre et Miquelon, Saint-Pierre et Miquelon<sup>4</sup>; Isle-aux-Grues, Québec<sup>5</sup>; Matane, <sup>6</sup>; North Head, New Brunswick<sup>7</sup>; Blacks Harbour, New Brunswick<sup>8</sup>; Rivière-du-Loup, Québec<sup>9</sup>; Saint-Siméon, Québec<sup>10</sup>; Yarmouth, Nova Scotia<sup>11</sup>; Mulgrave-Canso-Point Tupper, Nova Scotia<sup>12</sup>; Dartmouth-Halifax, Nova Scotia<sup>13</sup>; Sept-Îles, Québec<sup>14</sup>; St. John's Newfoundland<sup>15</sup>; Port-Cartier, Québec<sup>16</sup>.

Appendix M. Potential ballast-mediated NIS with high impact globally found at ports connected to Atlantic top ports.

Species	Higher taxa	Ports											
		SI <sup>1</sup>	BC <sup>2</sup>	PC <sup>3</sup>	HP <sup>4</sup>	CW <sup>5</sup>	SA <sup>6</sup>	CA <sup>7</sup>	CB <sup>8</sup>	LE <sup>9</sup>	DH <sup>10</sup>	SJ <sup>11</sup>	
<i>Acrothamnion preissii</i>	Plant	X		X									
<i>Aglaothamnion halliae</i>	Algae	X		X									
<i>Alepes djedaba</i>	Fish	X		X		X	X	X	X				
<i>Alexandrium catenella</i>	Algae	X		X									
<i>Alexandrium minutum</i>	Algae	X		X		X							
<i>Alexandrium ostenfeldii</i>	Algae	X		X	X	X	X	X	X				
<i>Alexandrium peruvianum</i>	Algae	X		X									
<i>Alexandrium taylori</i>	Algae	X		X									
<i>Anadara inaequalvis</i>	Mollusc	X		X									
<i>Asparagopsis armata</i>	Plant	X		X		X	X						
<i>Botryllus schlosseri</i>	Tunicate	X		X		X	X	X	X				
<i>Botrylloides violaceus</i>	Tunicate	X		X		X	X	X	X				
<i>Brachidontes pharaonis</i>	Mollusc	X		X									
<i>Callinectes sapidus</i>	Crustacean	X		X		X	X						
<i>Carcinus maenas</i>	Crustacean	X		X		X	X	X	X		X	X	
<i>Caulerpa racemosa</i> var. <i>cylindracea</i>	Plant	X		X									
<i>Caulerpa taxifolia</i>	Plant	X		X									
<i>Cercopagis pengoi</i>	Crustacean	X		X									
<i>Chara connivens</i>	Algae	X		X									
<i>Charybdis hellerii</i>	Crustacean	X		X		X	X	X	X				
<i>Chattonella</i> aff <i>verruculosa</i>	Algae	X		X									
<i>Codium webbiana</i>	Algae	X		X									
<i>Corbula gibba</i>	Mollusc	X		X		X	X						
<i>Cordylophora caspia</i>	Cnidarian	X		X		X	X	X	X				
<i>Coscinodiscus wailesii</i>	Diatom	X		X		X							
<i>Crepidula fornicata</i>	Mollusc	X		X		X	X						
<i>Dasya baillouviana</i>	Algae	X		X									
<i>Didemnum vexillum</i>	Ascidian	X		X		X	X	X	X				
<i>Dreissena polymorpha</i>	Mollusc	X		X	X	X	X			X			
<i>Elminius modestus</i>	Crustacean	X		X		X	X						
<i>Eriocheir sinensis</i>	Crustacean	X		X		X	X						
<i>Ficopomatus enigmaticus</i>	Annelid	X		X		X	X	X	X				
<i>Gammarus tigrinus</i>	Crustacean	X		X		X							

Species	Higher taxa	Ports										
		SI <sup>1</sup>	BC <sup>2</sup>	PC <sup>3</sup>	HP <sup>4</sup>	CW <sup>5</sup>	SA <sup>6</sup>	CA <sup>7</sup>	CB <sup>8</sup>	LE <sup>9</sup>	DH <sup>10</sup>	SJ <sup>11</sup>
<i>Garveia franciscana</i>	Cnidarian	X		X		X	X			X		
<i>Hemigrapsus penicillatus</i>	Crustacean	X		X		X	X					
<i>Hemigrapsus sanguineus</i>	Crustacean	X		X		X	X	X	X		X	X
<i>Hemimysis anomala</i>	Crustacean	X										
<i>Heterosiphonia japonica</i>	Algae	X		X		X	X					
<i>Hydroides ezoensis</i>	Annelid	X		X								
<i>Lithoglyphus naticoides</i>	Mollusc (Snail)	X		X								
<i>Littorina littorea</i>	Mollusc (Snail)	X		X		X	X	X	X			
<i>Lophocladia lallemandii</i>	Algae	X										
<i>Maeotias marginata</i>	Cnidarian	X		X		X	X					
<i>Marenzelleria neglecta</i>	Annelid	X		X								
<i>Marenzelleria viridis</i>	Annelid	X		X								
<i>Membranipora membranacea</i>	Bryozoan	X		X		X	X	X	X			
<i>Microspongium globosum</i>	Algae	X		X								
<i>Mnemiopsis leidyi</i>	Ctenophore	X		X								
<i>Moerisia lyonsi</i>	Cnidarian	X		X		X	X	X	X			
<i>Musculista senhousia</i>	Mollusc	X		X								
<i>Mytella charruana</i>	Mollusc	X				X	X					
<i>Mytilopsis leucophaeata</i>	Mollusc	X		X		X	X	X	X			
<i>Neogobius melanostomus</i>	Fish	X										
<i>Ostreopsis ovata</i>	Algae	X		X								
<i>Percnon gibbesi</i>	Crustacean	X		X								
<i>Perna perna</i>	Mollusc	X		X		X	X			X		
<i>Perna viridis</i>	Mollusc	X		X		X	X			X		
<i>Phyllorhiza punctata</i>	Cnidarian	X		X		X	X			X		
<i>Polyandrocarpa zorriventris</i>	Tunicate	X		X								
<i>Pontogammarus robustoides</i>	Crustacean	X										
<i>Prorocentrum minimum</i>	Algae	X		X		X	X	X	X			
<i>Pseudobacciger harengulae</i>	Annelid	X		X								
<i>Pseudopolydora paucibranchiata</i>	Annelid	X		X		X	X					
<i>Rapana venosa</i>	Mollusc (Snail)	X		X		X	X	X	X			
<i>Rhopilema nomadica</i>	Cnidarian	X										

Species	Higher taxa	Ports										
		SI <sup>1</sup>	BC <sup>2</sup>	PC <sup>3</sup>	HP <sup>4</sup>	CW <sup>5</sup>	SA <sup>6</sup>	CA <sup>7</sup>	CB <sup>8</sup>	LE <sup>9</sup>	DH <sup>10</sup>	SJ <sup>11</sup>
<i>Sargassum muticum</i>	Algae	X		X		X	X					
<i>Spartina anglica</i>	Plant	X		X		X						
<i>Strombus persicus</i>	Mollusc	X										
<i>Styela clava</i>	Tunicate	X		X	X	X	X	X	X			
<i>Theora lubrica</i>	Mollusc	X		X								
<i>Undaria pinnatifida</i>	Plant	X		X		X	X					
<i>Xenostrobus securis</i>	Mollusc	X		X		X	X					

**Abbreviations:** Sept-Îles, Québec<sup>1</sup>; Baie-Comeau, Québec<sup>2</sup>; Port-Cartier, Québec<sup>3</sup>; Havre-Saint-Pierre, Québec<sup>4</sup>; Come By Chance-Whiffen Head, Newfoundland<sup>5</sup>; Saint John, New Brunswick<sup>6</sup>; Canso-Mulgrave-Point Tupper<sup>7</sup>; Conception Bay, Newfoundland<sup>8</sup>; Lewisporte, Newfoundland<sup>9</sup>; Dartmouth-Halifax, Nova Scotia<sup>10</sup>; St. John's, Newfoundland<sup>11</sup>.

Appendix N. Departure statistics for coastal domestic, Laker and Atlantic vessels from top Atlantic ports as a measure of potential for hull-mediated secondary spread.

	Annual number of departures	Potential for Spread
<b>International transoceanic merchant vessels</b>		
Dartmouth – Halifax, NS	609	Higher
Canso-Mulgrave – Point Tupper, NS	456	Intermediate
Saint John, NB	739	Highest
<b>International coastal U.S. merchant vessels</b>		
Canso-Mulgrave – Point Tupper, NS*	456	Intermediate
Come by Chance - Whiffen Head, NL*	16	Lowest
Dartmouth - Halifax, NS*	609	Higher
<b>International exempt merchant vessels</b>		
Saint John, NB	739	Highest
Whiffen Head – Come By Chance, NL	16	Lowest
Dartmouth - Halifax, NS	609	Higher
<b>Coastal domestic merchant vessels</b>		
Sept-Îles, QC	344	Lower
Dartmouth – Halifax, NS	609	Higher
St. John's, NL	683	Higher
<b>Laker merchant vessels</b>		
Port-Cartier, QC	193	Lower
Sept-Îles, QC	344	Lower
Baie-Comeau, QC	937	Highest
<b>Atlantic merchant vessels</b>		
Dartmouth – Halifax, NS	609	Higher
St. John's, NL	683	Higher
Saint-Pierre et Miquelon, SPM	74	Lowest
<b>International non-merchant vessels</b>		
Yarmouth, NS	129	Lowest
Dartmouth – Halifax, NS	609	Higher
St. John's, NL	683	Higher
<b>Coastal domestic non-merchant vessels</b>		
Saint-Siméon, QC	879	Highest
Rivière-du-Loup, QC	917	Highest
Isle-aux-Grues, QC	580	Higher
<b>Atlantic non-merchant vessels</b>		
Blacks Harbour, NB	2156	Highest
North Head, NB	1654	Highest
Matane, QC	1338	Highest

Appendix O. Ballast water uptake statistics for coastal domestic, Laker, and Atlantic merchant vessels at top Atlantic ports as a measure of potential for ballast-mediated secondary spread.

	<b>Annual number of ballast water uptake events</b>	<b>Potential for Spread</b>
<b>International transoceanic merchant vessel ballast water discharges</b>		
Sept-Îles, QC	23	Lower
Come By Chance-Whiffen Head, NL	0	Lowest
Port-Cartier, QC	19	Lower
<b>International Coastal U.S. vessel ballast water discharges</b>		
Come By Chance-Whiffen Head, NL	0	Lowest
Saint John, NB	4	Lowest
Canso-Mulgrave-Point Tupper, NS	5	Lowest
<b>International exempt merchant vessel ballast water discharges</b>		
Saint John, NB	4	Lowest
Come By Chance-Whiffen Head, NL	0	Lowest
Conception Bay Harbour, NL	0	Lowest
<b>Coastal domestic merchant vessel ballast water discharges</b>		
Sept-Îles, QC	23	Lower
Havre-Saint-Pierre, QC	1	Lowest
Port-Cartier, QC	19	Lower
<b>Laker merchant vessel ballast water discharges</b>		
Sept-Îles, QC	23	Lower
Port-Cartier, QC	19	Lower
Baie-Comeau, QC	58	Highest
<b>Atlantic merchant vessel ballast water discharges</b>		
Port-Cartier, QC	19	Lower
Lewisporte, NL	4	Lowest
Dartmouth-Halifax, NS	8	Lowest
St. John's, NL	1	Lowest