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Proceedings of the Zonal Peer Review of the Scenario Analysis for the Future Marine Protected Area Network in the Estuary and Gulf of St. Lawrence Bioregion

January 31 and February 1, 2017
Mont-Joli, Quebec

Chairperson: Jacques A. Gagné
Rapporteur: Sonia Dubé

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Canada

Foreword

The purpose of these proceedings is to document the key activities and discussions that took place during the meeting. The Proceedings may include research recommendations, uncertainties, and the rationale for decisions made during the meeting. Proceedings may also document when data, analyses or interpretations were reviewed and rejected on scientific grounds, including the reason(s) for rejection. As such, interpretations and opinions presented in this report may be factually incorrect or misleading, but are included to record as faithfully as possible what was considered at the meeting. No statements are to be taken as reflecting the conclusions of the meeting unless they are clearly identified as such. Moreover, further review may result in a change of conclusions where additional information was identified as relevant to the topics being considered, but not available in the timeframe of the meeting. In the rare case when there are formal dissenting views, these are also archived as Appendices to the Proceedings.

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SUMMARY

This document contains the Proceedings of the Zonal Peer Review meeting of the Scenario Analysis for the Future Marine Protected Area Network in the Estuary and Gulf of St. Lawrence Bioregion. This meeting was held on January 31 and February 1, 2017 at the Maurice Lamontagne Institute in Mont-Joli, which was attended by over 30 participants. These proceedings provide an overview of the key points of the presentations and discussions along with recommendations presented during the review.

RÉSUMÉ

Ce document contient le compte rendu de l’examen zonal par des pairs portant sur l’analyse du scénario pour le futur réseau d’aires marines protégées dans la biorégion de l’estuaire et du golfe du Saint-Laurent. Cette rencontre, qui s'est déroulée du 31 janvier au 1er février 2017 à l'Institut Maurice-Lamontagne, à Mont-Joli, a réuni plus d’une trentaine de participants. Ce compte rendu contient l'essentiel des présentations et des discussions qui ont eu lieu pendant la réunion et fait état des recommandations émises au moment de la revue.

INTRODUCTION

The many provincial, territorial, national and international commitments related to the creation of marine protected area (MPA) networks highlights the importance of conserving marine biodiversity. Fisheries and Oceans Canada (DFO) is working with other federal departments and the provinces that have mandates, expertise or an interest in establishing marine protected areas in order to plan a Marine Protected Area Network. The main goal of this network will be to provide long-term protection of marine biodiversity, ecosystem functions and specific natural characteristics of the marine environment. The network will also help achieve the Government of Canada's conservation objectives to protect 5% of coastal and marine areas by 2017 and at least 10% by 2020.

At an initial peer review held on September 24 and 25, 2013, attendees reviewed the various layers of ecological information used to define the network and validated the methodology. A Technical Committee is currently working on developing a scenario for the Marine Protected Area Network based on the methodology agreed upon at this first review.

A peer review process is now required in order to assess the proposed preliminary scenario and ensure that its implementation would achieve the conservation objectives defined for the Estuary and Gulf of St. Lawrence Bioregion. Participants were invited to contribute to this review within the framework defined for it (Appendices 1, 2 and 3). This document contains the Proceedings of the meeting that was held on January 31 and February 1, 2017.

BACKGROUND

The meeting chair, Jacques A. Gagné, welcomed the participants. He reviewed the objectives of the meeting and provided some procedural details. The participants introduced themselves.

Elaine Albert provided background information on Canada's commitment to protect 5% of its coastal and marine areas by 2017 and 10% by 2020. Currently, less than 1% of the marine area is protected. Fisheries and Oceans Canada (DFO) is working with stakeholders to develop a Marine Protected Area Network. A Technical Committee has been created to coordinate the work. The configuration of this network originally covered the upper Estuary, lower Estuary and a part of the Gulf of St. Lawrence. The network configuration has since been extended to the entire bioregion of the Estuary and Gulf of St. Lawrence following the peer review meeting in September 2013.

Ms. Albert reviewed the various steps involved in planning the MPA Network, which are described in the Marine Protected Area Network Strategy for the Estuary and Gulf of St. Lawrence Bioregion. The MPA network's main goal for the Estuary and Gulf of St. Lawrence Bioregion is to provide long-term protection of the biodiversity, ecosystem functions and natural characteristics of the marine environment. The network design properties and components related to the primary goal are to: give priority to Ecologically and Biologically Significant Areas (EBSAs) for protection within the network; ensure the full range of biodiversity within the bioregion (representativeness); ensure the conservation of ecological links between marine protected areas (connectivity); and ensure the sustainability of the network. Based on these properties, there are 10 strategic conservation objectives, 87 conservation priorities and 435 conservation targets.

The participants asked a few questions:

- A participant asked whether the division of bioregions was based on scientific principles. A participant explained that at the mouth of the Gulf, the bioregions were delineated based on NAFO (Northwest Atlantic Fisheries Organization) area boundaries.

- Someone asked what percentage of the MPAs would be located in coastal areas. It was pointed out that there was no specific guidance regarding this matter.
- Will the MPA network be managed on an adaptive (evolutionary) basis? Apparently, it will be possible to take new data into account over time.
- It was noted that conservation targets are operational objectives that are used to define strategic objectives and how to meet them.

NETWORK COMPONENTS AND ANALYTICAL TOOL (MARXAN)

CONSERVATION PRIORITIES AND TARGETS TO BE ANALYZED

Danielle Dorion's presentation discussed the inclusion of ecological issues. She reviewed the main changes since the first peer review in 2013. The area involved in planning the MPA network was expanded to include the entire Gulf of St. Lawrence, and research continued to obtain the most recent data. Sensitivity analyses were also performed. Then the methodological document was restructured to highlight connections between conservation priorities (CPs) and conservation objectives.

CPs are the ecological features selected by the Technical Committee for inclusion in the network. Network CPs address the main objective and are directly based on strategic conservation objectives. By selecting CPs related to these objectives and identifying conservation targets for each one, expected outcomes can be described quantitatively. CPs are largely derived from two properties and components defined by the Convention on Biological Diversity, i.e. Ecologically and Biologically Significant Areas (EBSAs) and representativeness. They also address other important components of the Estuary and Gulf of St. Lawrence ecosystem that require protection. They are also selected based on geographic range as well as the availability and quality of the data. In addition, the data must be georeferenced in order to be included in the analytical grid. Ms. Dorion provided examples of CPs by conservation objective, specifying the number of CPs per objective and the number of data layers per CP.

Ms. Dorion described the approach used to establish conservation targets. A conservation target generally refers to the percentage of an area that needs to be protected for the objectives to be achieved. Conservation targets must therefore be determined by identifying the percentage of each CP to be included in a network. Minimum, medium and high target levels have therefore been assigned to CPs in order to develop MPA network configuration scenarios. Criteria used to define targets take into account the status of species, species of special interest, the type of data available, etc. Where the Technical Committee deemed that greater protection should be assigned to some CPs, reviews were performed on a case-by-case basis.

Participants made a few comments:

- Regarding the CP for lobster, it was suggested that the term "three entities" be used instead of "three genetic populations" as suggested in a recent analysis on the subject.
- A participant said the data layers by CP were the most recent data available when the analyses were performed. However, it was noted that one of the purposes of this meeting was to ensure that the scenario take into account the best possible information and the most up-to-date data layers in order to identify gaps, and to suggest adjustments to the proposed sites.

HUMAN ACTIVITIES TO BE CONSIDERED

Selma Pereira reminded that one of the objectives of the network was to support the conservation and sustainable management of living marine resources and their habitats in order to preserve the socioeconomic values and ecosystem services associated with them. Social and economic data must therefore also be used to provide the most true representation possible of activities that may be affected by the creation of MPAs and to develop scenarios that minimize these impacts while meeting the network's conservation objectives.

In order to identify social and economic activities that must be taken into account in configuring the MPA network, Ms. Pereira indicated that an approach based on a summary analysis of potential impacts on CPs was used. The activities selected using this methodology were: marine transportation, the oil and gas industry and commercial fisheries. Only fisheries data were included in the spatial analysis. The other activities will be included later in a more detailed site-by-site analysis.

Commercial fishery data were included in the analytical grid based on the average annual value of landings (2008–2012). However, logbooks do not provide georeferenced data for all landings. Therefore, in order to map all landing values for every combination of species / fishing gear, an estimation methodology was used to directly assign a coordinate to non-georeferenced data. Ms. Pereira provided a few examples. Values associated with the processing industry as well as fishing jobs were also taken into account. However, after the results were reviewed, it was decided that only landed values would be included as data for defining the layers of costs associated with commercial fisheries because the results obtained were similar.

Participants had questions and comments regarding fisheries data:

- Participants wondered about the reference period used: 2008 to 2012. A participant said this period could be adjusted over the years.
- It was suggested that a longer historical series should be considered for some species, including redfish.
- Some participants said the concept of regional fairness should also be taken into account. So, the closures in some areas could disproportionately affect certain regions where there are fewer economic alternatives.
- While the approach may create small-scale biases, a participant said the maps had been verified by fishing industry stakeholders.
- Another participant indicated that any future changes in the range of species (and fisheries) related to global warming may be considered. DFO Science would have access to forecasting tools.

OTHER NETWORK COMPONENTS

Marjolaine Blais stated that other components will be included in the MPA network: Areas of Interest for potential MPAs, the marine sections of Parks Canada's protected areas (Forillon, Kouchibouguac), designated critical habitats for species at risk (beluga whale, Striped Bass), and Other Effective Area-Based Conservation Measures (OEABCM). These sites were not included in the spatial analyses in order to provide more flexibility and avoid the agglomeration effect. Also, more conservation targets would have been achieved if they had been included. Ms. Blais briefly described the characteristics of the other components of the network.

Participants provided some comments:

- In addition to the Other Effective Area-Based Conservation Measures (OEABCMs) already considered for the Estuary and Gulf of St. Lawrence Bioregion, a participant said additional OEABCMs may be included in the southern Gulf currently under study.
- It was pointed out that a more detailed analysis of the achievement of conservation targets and objectives versus the addition of the other components should be performed, because an OEABCM does not necessarily meet all network objectives.
- A participant said connectivity between sites would be taken into account at a later stage. Expanding a terrestrial protected area in the marine portion could be an example to be considered for connectivity.
- Participants wondered about the difference between ZMP ["zone de protection marine" the French term used in the *Oceans Act*] and AMP ["aire marine protégée" the French term used in the MPA Network Strategy] [MPA is the only term used in English.] A Marine Protected Area [AMP] is defined as "A clearly defined marine geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values." A Marine Protected Area [ZMP] is one of the possible components of an MPA network and this status is granted under the *Oceans Act*, which is managed by DFO. In addition to MPAs, there are various types of other effective area based conservation measures that may be considered for inclusion in the network.
- There were questions regarding the coordination of procedures for the protection of corals and sponges and for network planning. A participant said both initiatives will be linked.

MARXAN TOOL, ANALYSIS AND RESULTS

Rodolphe Devillers provided an overview of the Marxan tool, which was selected to perform spatial analyses used to define the preliminary MPA network configuration for the Estuary and Gulf of St. Lawrence Bioregion. Marxan software is the most widely used systematic conservation planning tool in the world. It has the computational capacity to solve complex protected area network design problems involving large amounts of ecological and socioeconomic data and has the flexibility to support participatory planning processes. Marxan is designed to solve the minimum set problem, where the goal is to achieve user-defined conservation objectives or targets at the lowest possible cost. Marxan tries to solve this problem by solving a given equation where the value of the equation is a function of planning unit costs, boundary costs and penalties. The planning area is divided into small planning units (PU). The two most important Marxan outputs for any given scenario are the best solution (the solution with the lowest value for the equation from all runs) and the selection frequency or overall solution (the number of times each PU was included as part of a good solution for all runs).

The potential impacts of the network on human activities are called "costs." Two approaches were used and compared to define a cost layer based on landed values. The first approach considers combined landed values for all fisheries selected (Costs A). The second approach is related to the concept of fairness, i.e. the severity of the impacts on the various fisheries (Costs B). These two cost layers were used in the Marxan analyses to define various scenarios (Sc) for the network. The six scenarios that underwent preliminary analysis are based on a three-point ecological target scale (minimum, medium, high) for these two layers.

The Technical Committee selected the "ScCostsBmin" scenario. This scenario has a smaller total area and a less fragmented configuration than the ScCostAmin scenario. It is also a little fairer in terms of impact on fisheries. The "minimum" target level assigned to the CP is associated with this scenario. Even with this target level, this scenario selects a high percentage

of the bioregion, while exceeding many conservation targets. The other components, presented earlier by Ms. Blais, were merged with this scenario to produce the preliminary configuration of the network.

Participants provided some comments following this presentation:

- A participant said Marxan can process various types of data (e.g. density or presence/absence).
- It was pointed out that Marxan does not differentiate between coastal and offshore PUs.
- It was noted that connectivity between sites cannot be taken into account when performing analyses with the Marxan tool.
- A participant said that a component of the iterations of the model are random, but the solution was not arbitrary. It is very stable.
- There were concerns about the presence of very small sites that could be difficult to set up, follow up on and monitor.
- However, it should be kept in mind that Marxan is a decision-making tool designed to support—not replace—a spatial planning process. According to Marxan, the best solution does not necessarily mean the best spatial configuration of the network, in practical terms.
- A participant said a more detailed analysis will be performed to obtain an improved version based on recommendations from this meeting and the shortcomings raised by the participants.

DISCUSSION

A summary of the different views expressed by the participants in this discussion were listed under the following topics:

FISHERY

- In terms of socioeconomic impacts, there were questions about how regional fairness should be considered. Although one approach is related to the severity of the network's impacts on the various fisheries, this notion of fairness between fisheries may still favour some regions. It was noted that various fishing industry stakeholders will be consulted at a later stage.
- It was also noted that Marxan minimizes the overlap between fishing activities and conservation priorities. However, if fishing activities and conservation priorities were to overlap, the feasibility of closing a fishing area would be carefully assessed.
- Moreover, it should be kept in mind that displacing a fishery (or changing the fishing pattern) could affect the resource negatively in unanticipated ways.

BENTHIC INVERTEBRATES

- According to some participants, benthic invertebrates do not appear to have been sufficiently taken into account in the preliminary configuration of the network.
- In addition, they were not examined in terms of communities or key species.
- Some participants said the Calico Crab should be considered in the MPA network for its uniqueness. It was noted that part of its habitat would be covered in one of the sites in the preliminary configuration.

COASTAL AREA

- The participants thought the coastal zone would be under-represented.
- Some said all coastal areas associated with protected areas (e.g. parks, shelters) should be considered in the network configuration.

EBSA

- It was pointed out that some EBSAs are not included in the preliminary configuration of the MPA network (e.g. EBSAs 2 and 3).
- It is advisable to ensure that they are well represented.

SITES PROPOSED BY THE CANADIAN WILDLIFE SERVICE

- With respect to seabirds, participants noted that a dozen sites not included in the preliminary configuration should be considered. It may be possible to expand some areas to cover these sites.

LEATHERBACK TURTLE

- Some participants thought that measures specifically targeting the Leatherback Turtle (endangered species) should be developed once its critical habitat has been designated. Given the extent of the area covered and its seasonal use, this exceeds the network's objectives.

BLUE WHALE

- Participants said some sites that are important to the Blue Whale would not be covered by the preliminary configuration of the network even if targets for this species are achieved.

GROUNDFISH

- Winter Skate in the Northumberland Strait should be included in the MPA network.
- Participants had doubts regarding the results for American Plaice and Cod. The basic data were clearly incorrect and should be checked.
- There was concern that data sets could not be compared because they were based on different fishing gear (different catchability).

MIGRATION ROUTES

- Some participants felt there were valid reasons for taking into account some recognized migration corridors (Striped Bass, Alewife and some groundfish), including Miramichi Bay and the Cape Breton Trough.

MINGAN ISLANDS

- According to participants, the Mingan Islands area should be included in the network, in particular because of its great diversity.

RECOMMENDATIONS

Participants suggested changes regarding the proposed scenario to complete the preliminary configuration of the MPA network, fill in some gaps and address the issue of targets that have not been achieved. These suggestions were submitted as recommendations.

RECOMMENDATION 1

It was recommended that site 10 of the MPA network be expanded to cover EBSA 3. One of the reasons for this recommendation was the presence of Winter Skate and Calico Crab in the area.

RECOMMENDATION 2

It was recommended that site 8 be expanded to cover EBSA 2. The justification for this recommendation was the concentration of pelagic fish in the area (St. Georges Bay). The site also contains a wintering area for juvenile herring. It is also an important area for White Hake (small, distinct population and species considered endangered by COSEWIC).

RECOMMENDATION 3

It was recommended that site 120 (Mingan Archipelago) be extended to the coast (0–40 m) and slightly eastwards. The rationale was based on the presence of seabird colonies: feeding, nesting and wintering areas (site proposed by the Canadian Wildlife Service). The area should also be protected because of the uniqueness and high biodiversity of its benthic invertebrates. By extending site 120 to the coast, the coastal area is also considered.

RECOMMENDATION 4

It was recommended that some coastal areas adjacent to Anticosti Island be included. The cliffs are important habitat for the Black-legged Kittiwake, Northern Gannet and Black Guillemot.

The Canadian Wildlife Service made other suggestions. They related to other important sites for some seabird species not covered by the current network configuration. These additions could also help protect coastal areas. However, resources will also have to be protected. A list of these sites by priority level will be provided to the Technical Committee for a more detailed analysis.

RECOMMENDATION 5

It was recommended that site 41 be removed (incorrect information regarding Atlantic Cod and American Plaice), but that sites 43 and 45 be expanded and twinned given the presence of migratory birds and the Leatherback Turtle . However, the southern Magdalen Islands are an important site for lobster.

According to some participants, the rationale for site 52 was based on incorrect information. This site does not appear to be a concentration area for Atlantic Cod and American Plaice. However, this site would be important for benthic invertebrates.

RECOMMENDATION 6

It was recommended that site 73 be expanded within Gaspé Bay and along the north shore of the Gaspé to Cloridorme. The rationale is based on various factors including the presence of a Blue Whale feeding area and Right Whale sightings.

RECOMMENDATION 7

It was recommended that site 17 be expanded as an important migration route (Miramichi Bay), particularly for Northwest Atlantic salmon, Alewife and smelt. The area also contains the only confirmed spawning area for the Striped Bass population of the southern Gulf of St. Lawrence.

RECOMMENDATION 8

It was recommended that the MPA network be extended to all coastal areas (marine section) of terrestrial protected areas (e.g. parks, migratory bird sanctuaries). These habitats are known for their diversity and productivity.

RECOMMENDATION 9

It was recommended that the whole bay near site 113 (Bonne Bay) be added. This site is characterized by high biodiversity and productivity within a small area and is an important area for benthic invertebrates. In addition, the coastline's bathymetry is highly complex (Gros Morne National Park).

RECOMMENDATION 10

It was recommended that site 64, located in the estuary, be extended to Île d'Orléans, southward. There are a number of reasons for this recommendation: the presence of important oceanographic processes, a migratory corridor for Eel and Lake Sturgeon, Atlantic Sturgeon habitat, whose target has not been achieved. The historic Striped Bass habitat could also provide a rationale for extending the site northward.

RECOMMENDATION 11

It was recommended that site 54 be expanded east of New Brunswick to Miscou Bank by overlapping the Capelin and Herring breeding areas.

Some participants made a general comment that caution should be exercised in adding or expanding sites because this could increase the size of the network and the costs to the fishery.

CONCLUSION

Pursuant to these recommendations, a more detailed analysis will be performed to complete the preliminary configuration of the network. Consultation with partners and stakeholders (e.g. the fishing industry, aboriginal groups) will also be part of the process. The final plan for the MPA network is expected by April 2019.

In closing, Elaine Albert thanked all the participants, the members of the Technical Committee and all those who helped advance the work. The Chair thanked the participants and adjourned the meeting.

APPENDIX 1 – LIST OF PARTICIPANTS

Name	Affiliation
Albert, Elaine	DFO, Oceans management, Quebec region
Benoît, Hugues	DFO, Science, Gulf region
Blais, Marjolaine	DFO, Oceans management, Quebec region
Brêthes, Jean-Claude	UQAR-ISMER
Chabot, Denis	DFO, Science, Quebec region
Chassé, Joël	DFO, Science, Gulf region
Castonguay, Martin*	DFO, Science, Quebec region
Dauphin, Diane	ECCC-SCF, Quebec region
Devillers, Rodolphe	Memorial University
Dionne, Suzan	Parcs Canada, Quebec region
Dorion, Danielle	DFO, Oceans management, Quebec region
Dubé, Sonia	DFO, Science, Quebec region
Fortin, Gilles	DFO, Oceans management, Quebec region
Gagné, Jacques A.	DFO, Science, Quebec region
Gendreau, Yanick	DFO, Science, Quebec region
Gullage, Mardi	DFO, Oceans management, Newfoundland and Labrador region
Jamieson, Robyn	DFO, Science, Newfoundland and Labrador region
Lavoie, Diane	DFO, Science, Quebec region
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McKindsey, Chris	DFO, Science, Quebec region
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Rowsell, Andrew	DFO, Fisheries management, Quebec region
Roy, Virginie	DFO, Science, Quebec region
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Savenkoff, Claude	DFO, Science, Quebec region
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Warren, Margaret	DFO, Science, Newfoundland and Labrador region
Wells, Nadine	DFO, Science, Newfoundland and Labrador region

* Present on January 31 only

APPENDIX 2 – TERMS OF REFERENCE

Scenario Analysis for the Future Marine Protected Area Network in the Estuary and Gulf of St. Lawrence Bioregion

Zonal Peer Review – Quebec, Gulf and Newfoundland and Labrador Regions

January 31 and February 1, 2017
Mont-Joli, Quebec

Chairperson : Jacques A. Gagné

Context

The many provincial, territorial, national and international commitments related to the establishment of marine protected area networks highlight the importance of marine biodiversity conservation. Fisheries and Oceans Canada (DFO) is combining its efforts with those of other federal departments and the provinces that have mandates, expertise or interest in establishing marine protected areas to plan a Marine Protected Area Network. The main goal of this network will be to provide long-term protection of marine biodiversity, ecosystem functions and specific natural characteristics of the marine environment. The network will also contribute to achieving the Government of Canada's conservation objectives to protect 5% of coastal and marine areas by 2017 and at least 10% by 2020.

A first peer review held on September 24 and 25, 2013 made it possible to review the various layers of information that will be used to define the network and to validate the chosen methodology. A technical committee is currently working on developing a scenario for the Marine Protected Area Network based on the methodology used at this first review.

A peer review process is required in order to review the proposed preliminary scenario and ensure that its implementation would achieve the conservation objectives defined for the Estuary and Gulf of St. Lawrence Bioregion.

Objectives

The purpose of this second meeting is to evaluate the results of the spatial analysis of the data integrating ecological and some socio-economic aspects. According to the methodology and decision support tool (Marxan) used, all sites represented in the preliminary scenario would make it possible to achieve the network's strategic conservation objectives. Scientists will be asked to comment on the results of the analysis from an ecological perspective by answering the following question:

1. Should additional ecologically significant areas be identified to complete the preliminary scenario (DFO 2017)?
    a. If so, which one(s)?
    b. Considering the strategic conservation objectives, please provide a rationale for integrating a new area into the existing preliminary scenario.
    c. Considering the strategic conservation objectives, please identify the specific consequences of not integrating this area into the scenario.

Expected Publications

- Proceedings

Participation

- Fisheries and Oceans Canada (Regional Science Branch and Oceans Management, Quebec Region),
- Fisheries and Oceans Canada (Regional Science Branch and Oceans Management, Gulf Region)
- Fisheries and Oceans Canada (Regional Science Branch and Oceans Management, Newfoundland and Labrador Region)
- Parks Canada
- Environment Canada (Canadian Wildlife Service)
- Academia

Reference

DFO. 2017. Establishment of a network of marine protected areas (MPAs) in the Estuary and Gulf of St. Lawrence. Proposed scenario for the future MPA network in the Estuary and Gulf of St. Lawrence Bioregion. Discussion paper. 49 pp. + appendices.

APPENDIX 3 - AGENDA

Scenario Analysis for the Future Marine Protected Area Network in the Estuary and Gulf of St. Lawrence Bioregion

Zonal peer review

January 31th and February 1st 2017
Mont-Joli (Quebec)

Chairperson : Jacques A. Gagné

Day 1 - Tuesday January 31th 2017

Time	Subject	Speakers
9:00	Welcome, meeting objectives and organization	Jacques A. Gagné
9:30	Planning of a Marine Protected Area Network	Elaine Albert
9:50	Presentation of conservation priorities and targets identified for analysis	Danielle Dorion
10:15	*Break*	
10:30	Presentation of conservation priorities and targets identified for analysis (cont.)	Danielle Dorion
11:00	Presentation of human activities to be considered	Selma Pereira
11:30	Presentation of the network other components	Marjolaine Blais
12:00	*Lunch*	
1:00	Presentation of the Marxan tool, analyses and results	Rodolphe Devillers
3:00	*Break*	
3:15	Questions and discussion about the analyses and results	Participants
4:15	Wrap-up session and end of the first day	

Day 2 - Wednesday February 1st 2017

Time	Subject	Speakers
9:00	Overview of the preliminary network design	Rodolphe Devillers
9:30	Terms of reference question and discussion	Jacques A. Gagné
10:15	*Break*	
10:30	Discussion	Participants
12:00	*Diner*	
1h00	Discussion	Participants
3:00	*Lunch*	
3:15	Wrap-up session, highlights	Participants
4:15	Meeting closure	Participants