



Identification Guide for Crabs of Eastern Canada



Never release aquarium animals, aquatic garden plants, live food, or live bait into rivers, streams, lakes, ponds, sewers, or the ocean. Crabs can only be released into the waters where they were captured and should never be moved from one place to another.



Intruders making WAVES

Aquatic Invasive Species
DON'T LET IT LOOSE!

Table of Contents

About this guide	ii	Watchlist species	
Crab anatomy	iii	Blue crab	26
		Atlantic ghost crab	28
		Gulfweed crab	30
Invasive species			
Green crab	4		
Mitten crab	6		
Asian shore crab	8	Report: What to do if you find aquatic invasive species?	
Native species			
Atlantic rock crab	10		
Jonah crab	12		
Lady crab	14		
Say mud crab	16		
Harris mud crab	18		
Contracted crabs	20		
Toad crab	22		
Portly spider crab	24		

About this guide

This guide is designed to facilitate the identification of crabs in the Gulf of St. Lawrence and Atlantic Canada, to help users report any sightings or capture of invasive species. **Prompt reporting of these species is essential in order to act quickly to preserve aquatic ecosystems.**

Species described in this guide are those that can be found on the eastern Canadian coasts, in the intertidal zone (i.e., the area between low tide and high tide). Species that live exclusively in deep waters are not included here.

The maps featured in this guide identify the known observations for each species. It is likely that the species' ranges are more extensive than what is shown on the maps. Areas to monitor are highlighted in yellow on the maps of **invasive species** and **watchlist species**. If you observe them in these areas, report them here:

dfo.queais-eaeque.mpo@dfo-mpo.gc.ca
1-877-722-4828



The guide is divided into 3 sections:

Invasive species

Crabs that do not naturally occur in a region, that have been introduced to the region as a result of human activities. They can rapidly establish large populations, displace other species, and even alter their habitat, posing a threat to biodiversity. They can also affect fisheries and aquaculture industries.

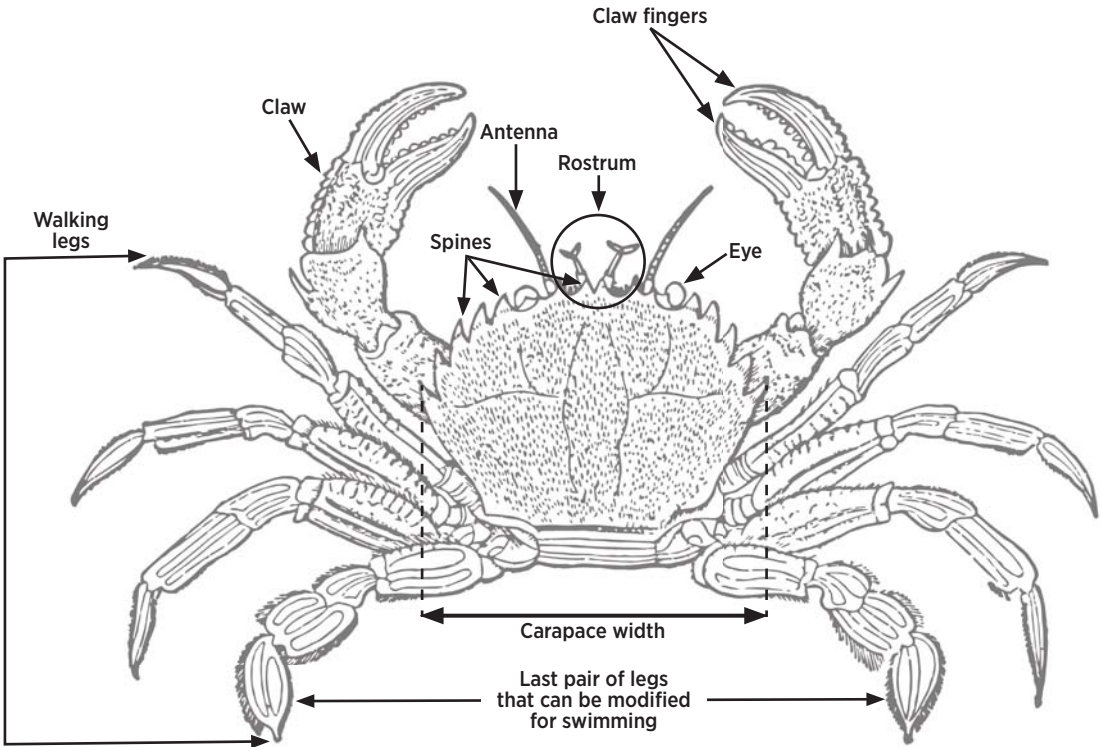
Native species

Crabs that naturally occur as an integral part of the ecosystem.

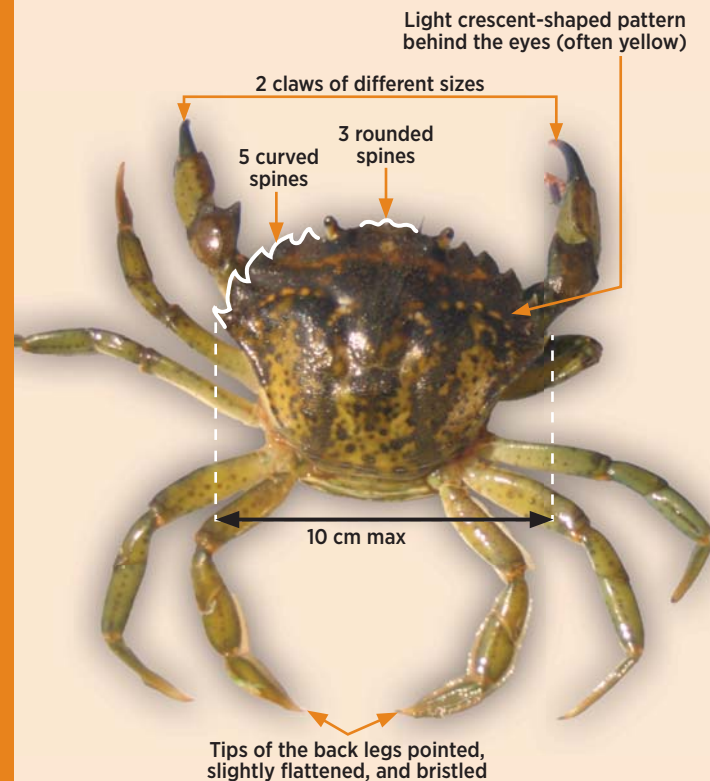
Watchlist species

Crabs that naturally occur on the east coast of the United States and may migrate northward, without human intervention, due to global warming. These species have been observed occasionally but are not yet considered established in eastern Canada. Although they are not considered invasive, you are invited to report them to Fisheries and Oceans Canada.

Crab Anatomy



GREEN CRAB *Carcinus maenas*



DFO R. Daigle



Tim Binns

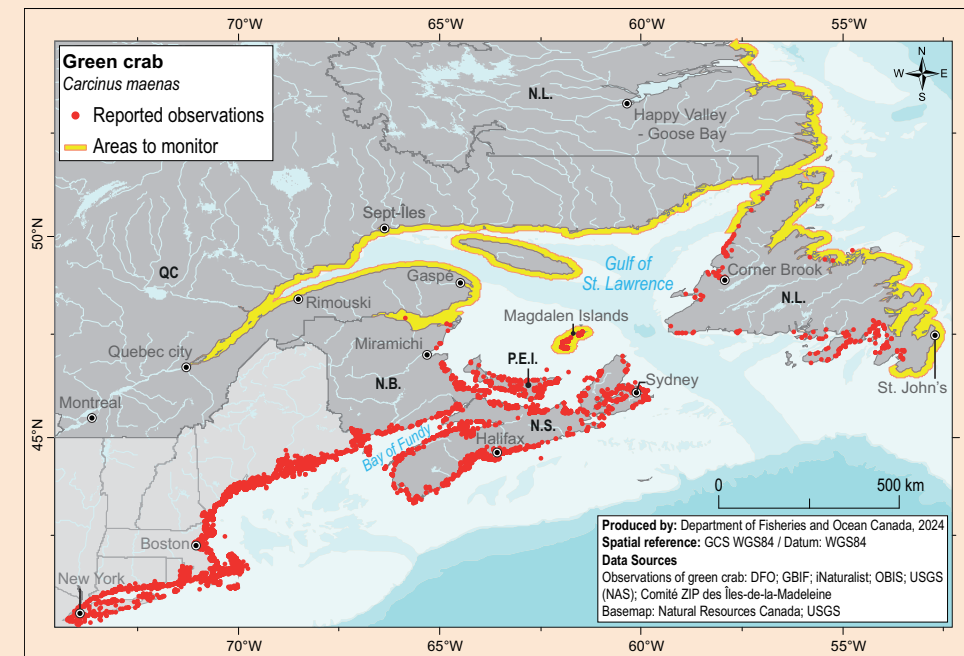
Characteristics

Carapace: bumpy, shaped like a fan

Colour: green, reddish-brown or yellow, marbled

Behaviour: aggressive and vigorous

GREEN CRAB *Carcinus maenas*



Native to Europe and North Africa. Now well established on the Atlantic and Pacific coasts of Canada.

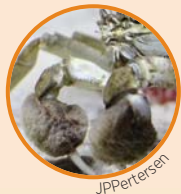
Found at depths less than 6 m.

Can be present in salt marshes, on sandy beaches, on rocky shores, in seagrass beds. Prefers areas well sheltered from wave action.

**Report sightings
in the areas to monitor**

MITTEN CRAB *Eriocheir sinensis*

Adults appear to be wearing mittens with white fingers



Characteristics

Colour: greenish-brown

Leg length: twice the width of the carapace

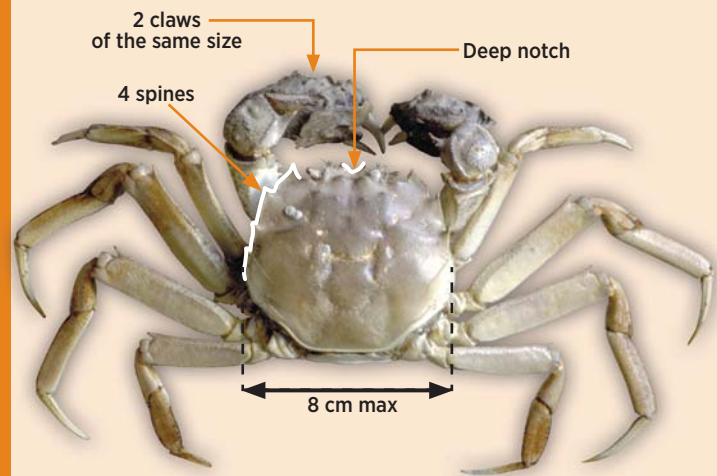
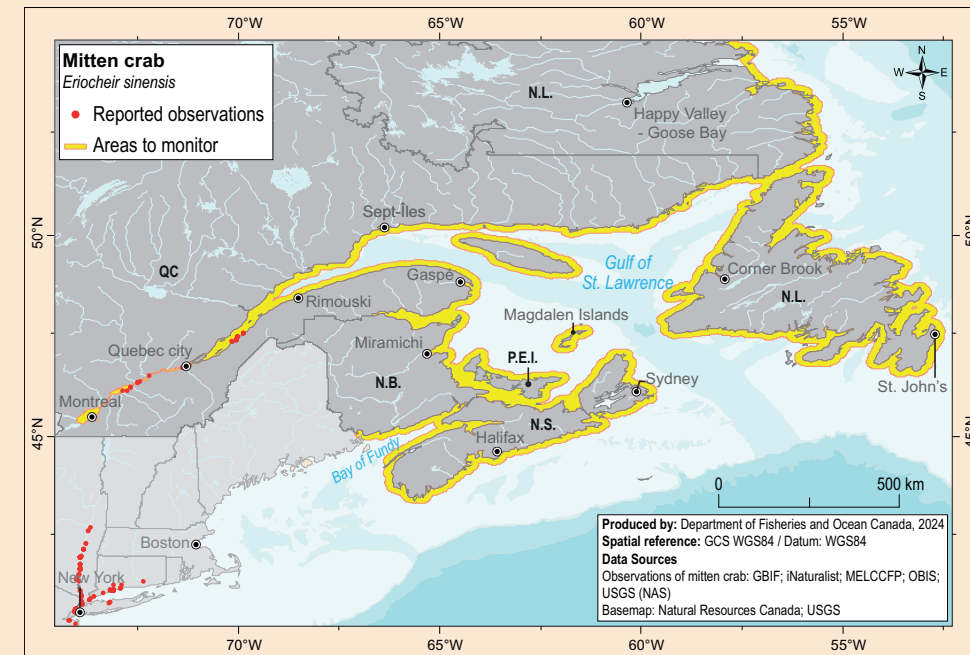


Photo credit: Ecomare/Sytske Dijkse

MITTEN CRAB *Eriocheir sinensis*



Native to China and the Korean Peninsula. Occasionally observed in the St. Lawrence River and Estuary.

Catadromous species, which lives in freshwater and migrates to saltwater to reproduce.

Found at depths of 10 m.

Lives in lakes and rivers, in wetlands, near shores, and in the brackish waters of estuaries.

Can survive in highly disturbed and polluted environments, such as muddy waters loaded with suspended sediments.

**Report sightings
in the areas to monitor**

ASIAN SHORE CRAB *Hemigrapsus sanguineus*

Bulb in the hollow
of the male's claws



Nathalie De Sommer



DFO S. Kingsbury



© Molly Jacobson

Characteristics

Carapace: roughly square

Colour: marbled or dotted with brownish-red, greenish or dark purple

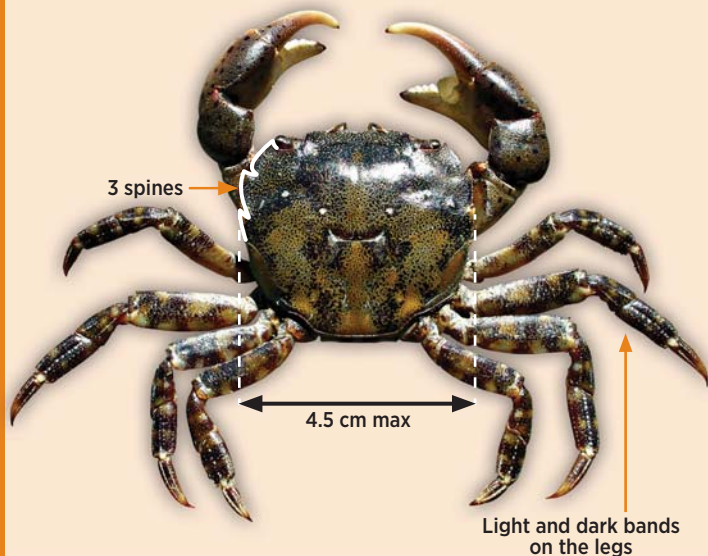
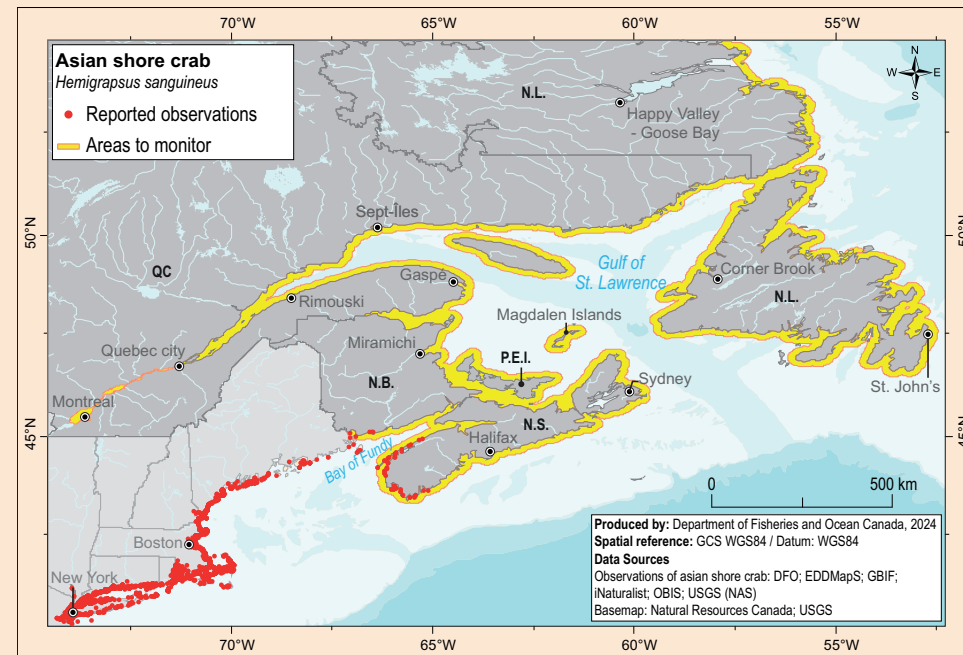


Photo credit: Ansel Oomen, Bugwood.org

ASIAN SHORE CRAB *Hemigrapsus sanguineus*

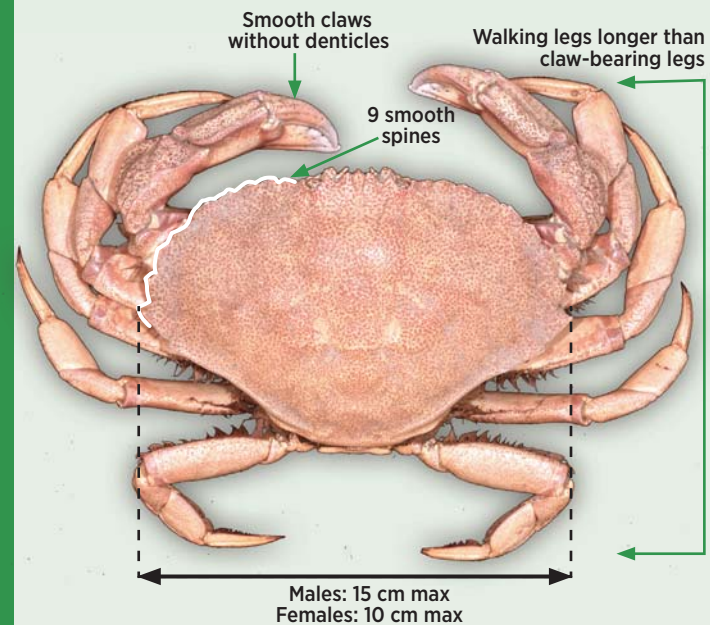


Native to northern Asia. Lives at depths around 4 m in the intertidal zone, the area between low tide and high tide. Moves to the subtidal zone (area permanently submerged, even at low tide) during winter.

Found on sandy and pebble beaches, mussel beds, seagrass beds, salt marshes, rock jetties, and pilings.

**Report sightings
in the areas to monitor**

ATLANTIC ROCK CRAB *Cancer irroratus*

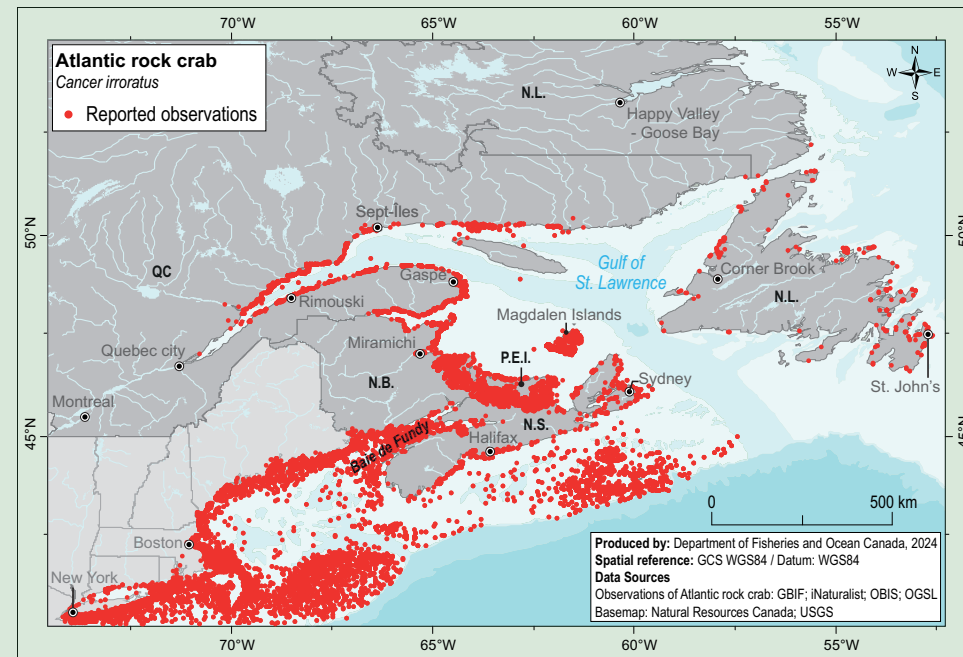


Characteristics

Carapace: smooth, broad, and oval, resembling a rock or sand for camouflage

Colour: yellow-brown to red-violet

ATLANTIC ROCK CRAB *Cancer irroratus*

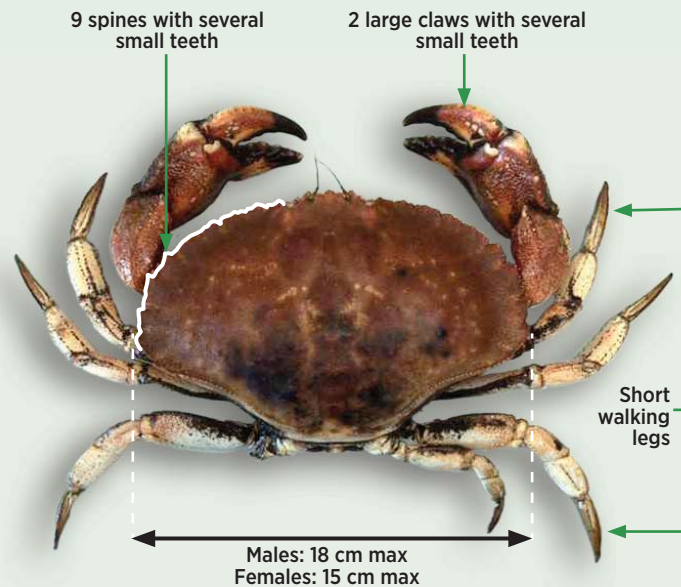


Can be found from the tide line down to 20 m deep.

Lives on a variety of seabed types, but prefers sandy, gravel, or rocky bottoms where it can camouflage more easily.

Commercially fished in eastern Canada.

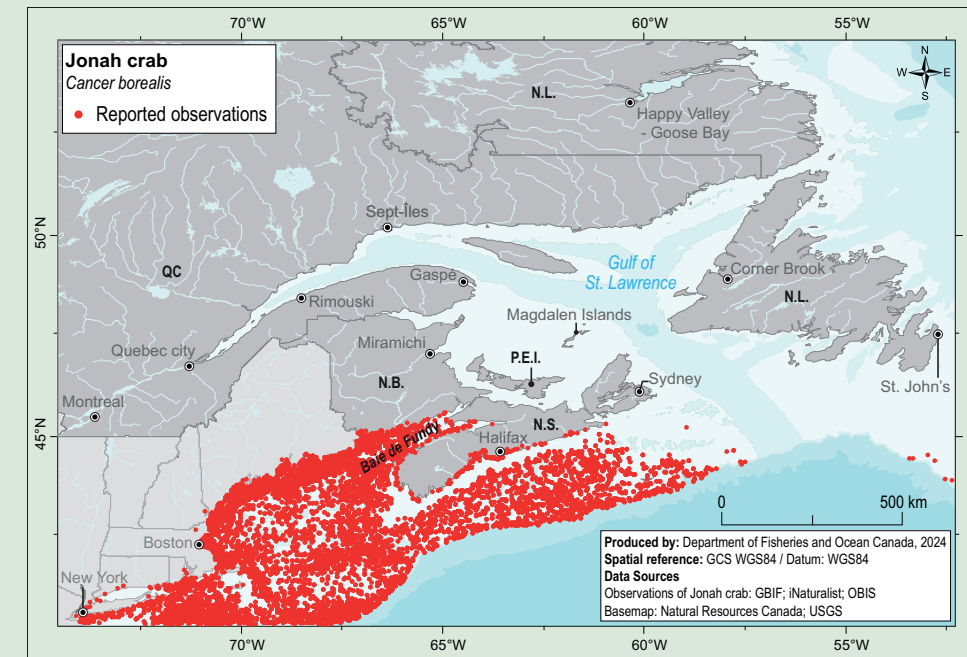
JONAH CRAB *Cancer borealis*



Characteristics

- Carapace:** oval-shaped, rough, and serrated
- Colour:** back is red with two lines of yellowish dots while the belly is yellowish

JONAH CRAB *Cancer borealis*

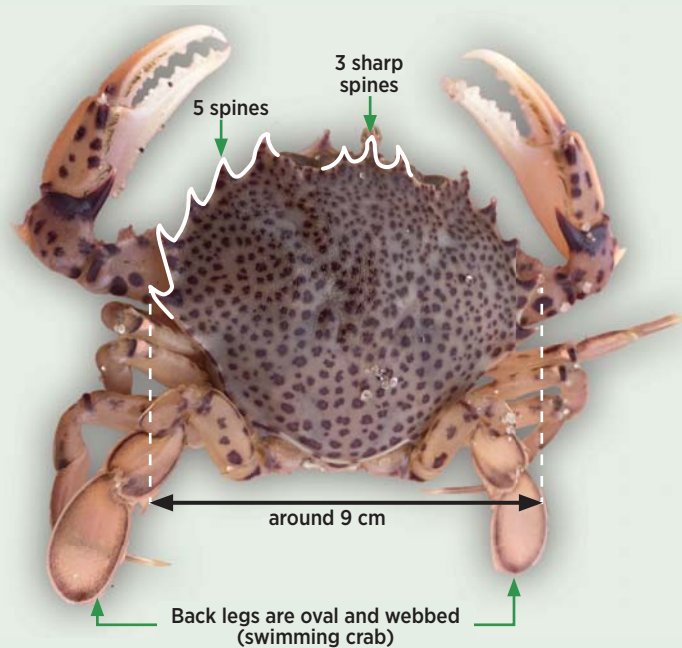


Found in a wide variety of depths, normally from the intertidal zone (area between low tide and high tide) to 300 m, but as deep as 800 m.

Lives on various seabed types: rock, mud, clay, and sand.

Commercially fished in eastern Canada.

LADY CRAB *Ovalipes ocellatus*

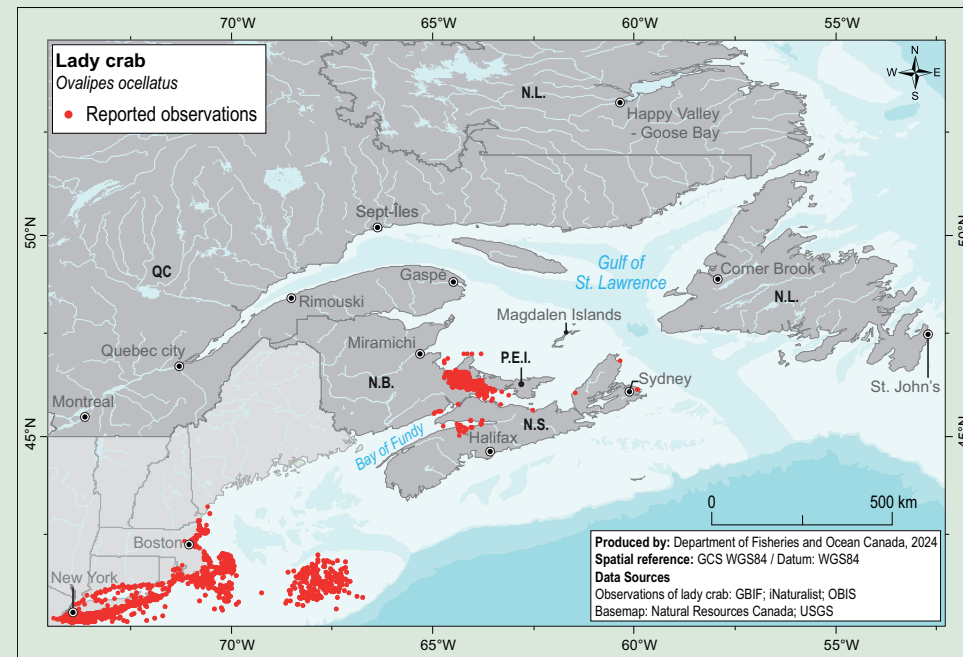


Characteristics

Colour: yellow-grey or pale violet, covered with red-violet spots, similar to a leopard
light brown claws with bluish tips and purple spots



LADY CRAB *Ovalipes ocellatus*



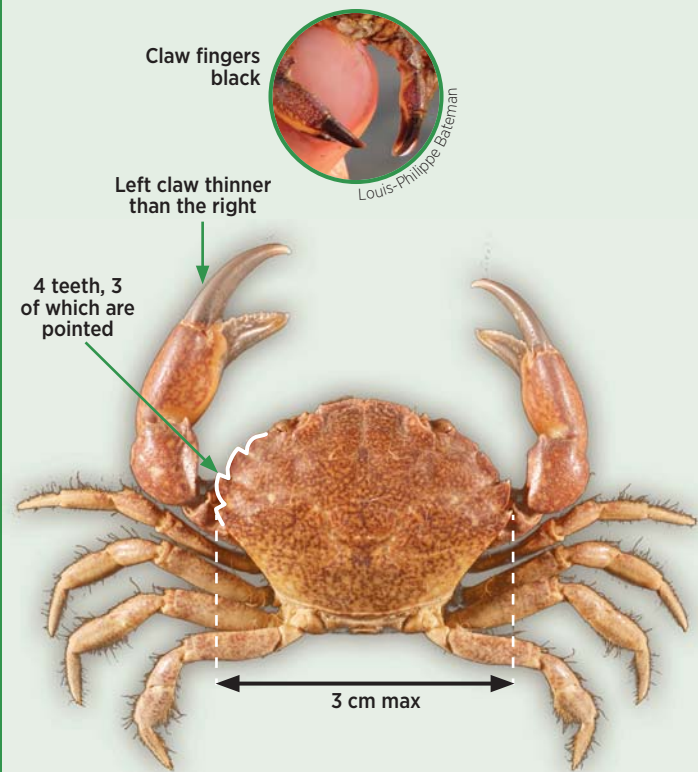
Lives in marine environments but can also be present in estuaries.

Can be found to depths of 100 m but prefers the intertidal zone (area between low and high tide).

Uses its last pair of webbed legs to swim, to dig, and to bury itself in sandy bottoms for camouflage.

Can also be found on rocky or muddy bottoms.

SAY MUD CRAB *Dyspanopeus sayi*

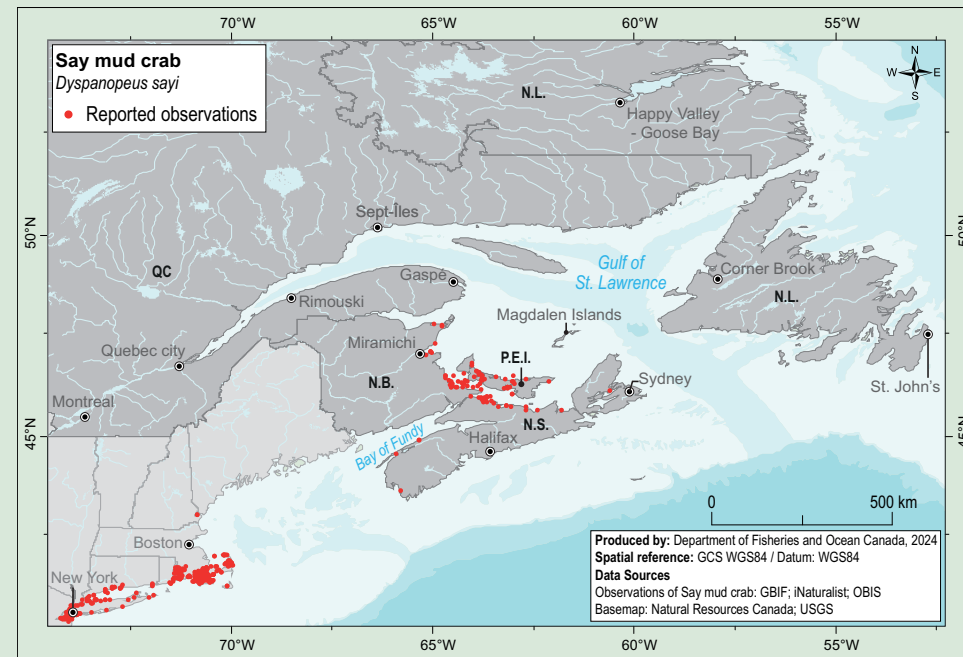


Characteristics

Carapace: hexagonal and dome-shaped, with granular texture and small hairs on the front and sides

Colour: varies from dark blue-green, to brown, or sand colour with small dark purple-red spots on a yellowish background

SAY MUD CRAB *Dyspanopeus sayi*

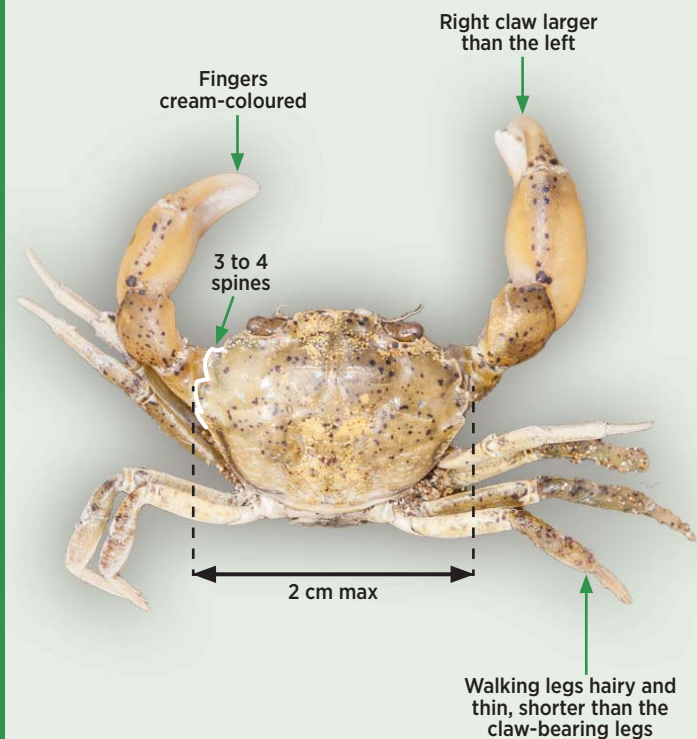


Generally lives in the intertidal zone at depths between 0 and 4 m, but has been found down to 46 m.

Lives on mud or oyster shell beds.

Can be found in seagrass beds in bays and in the brackish waters of estuaries.

HARRIS MUD CRAB *Rhithropanopeus harrisii*



Szymon Bzoma



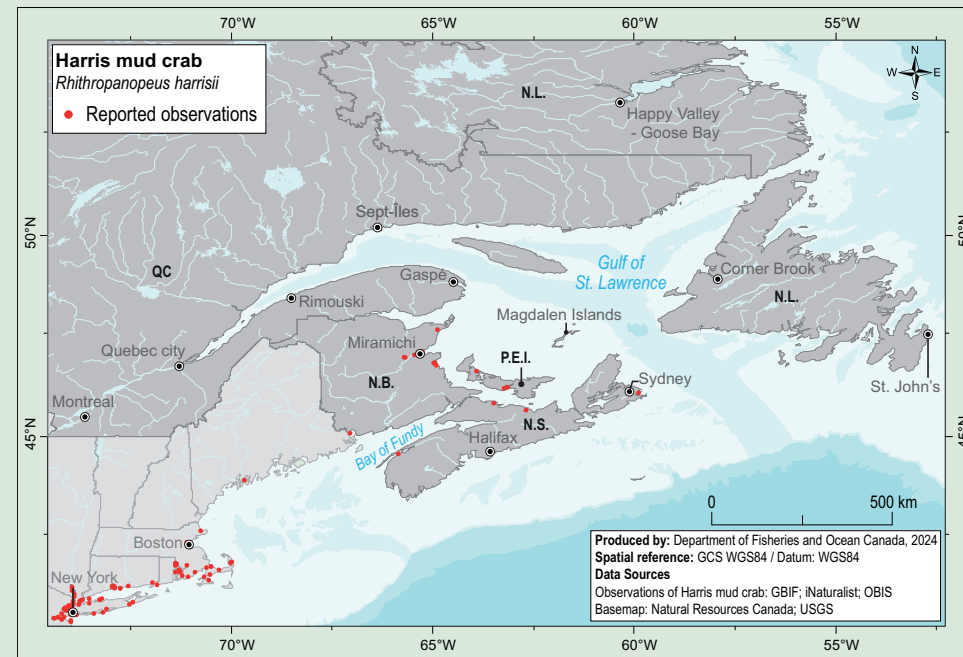
AWITPr.

Characteristics

Carapace: fan-shaped

Colour: brown, sometimes with reddish to black spots

HARRIS MUD CRAB *Rhithropanopeus harrisii*

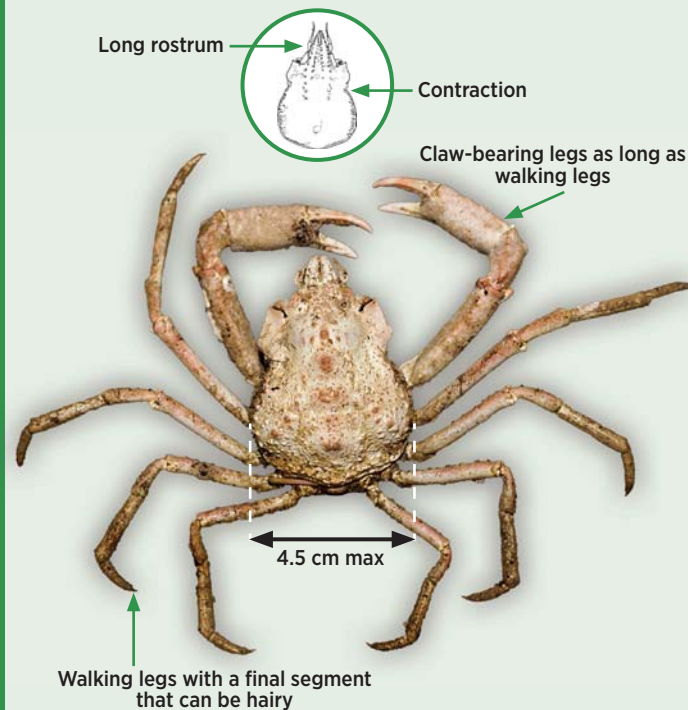


Accustomed to brackish waters, it can also be present in freshwater and marine environments.

Lives at depths between 0 and 10 m.

Often found on rocky bottoms or oyster beds, or in muddier places that provide shelter under debris.

CONTRACTED CRAB *Hyas coarctatus*



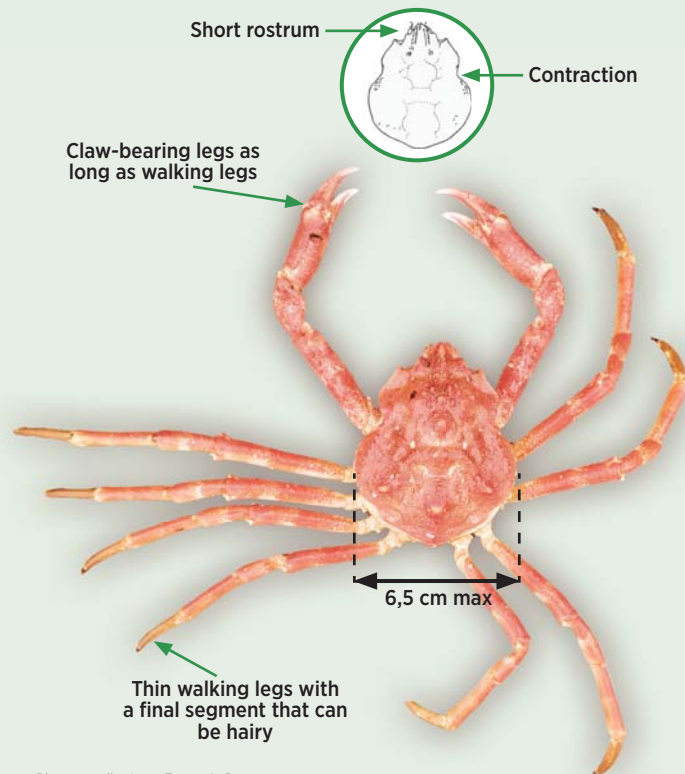
Characteristics

- Carapace:** contracted first third, giving it a violin shape
- Colour:** brownish-grey, sometimes reddish, with a white belly



Photo credit: bathyporeia
Illustration: Pohle 1990, A guide to decapod Crustacea from the Canadian Atlantic: Anomura and Brachyura. Can. Tech. Rep. Fish. Aquat. Sci. 1771

ARCTIC CONTRACTED CRAB *Hyas alutaceus*



Characteristics

- Carapace:** contracted first third, giving it a violin shape
- Colour:** brownish-grey, sometimes reddish, with a white belly

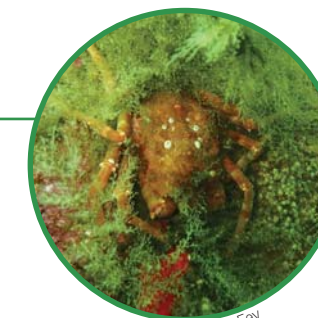


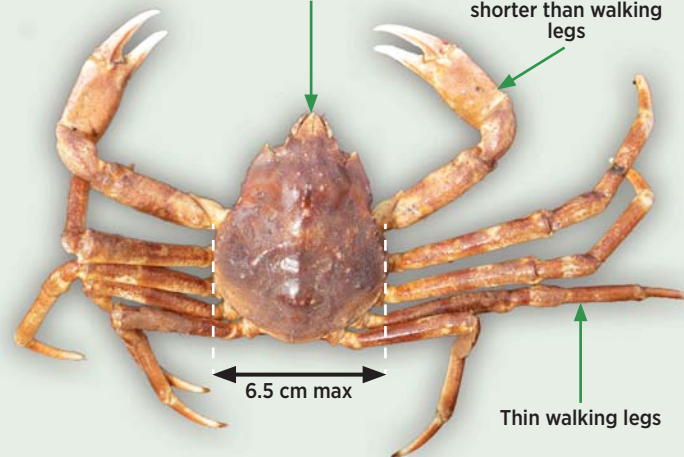
Photo credit: Jean-François Rousseau
Illustration: Pohle 1990, A guide to decapod Crustacea from the Canadian Atlantic: Anomura and Brachyura. Can. Tech. Rep. Fish. Aquat. Sci. 1771

TOAD CRAB *Hyas araneus*



Prominent rostrum tapered with a slit in the middle that meets at the tip

Claw-bearing legs shorter than walking legs



Thin walking legs



Laurent Fey

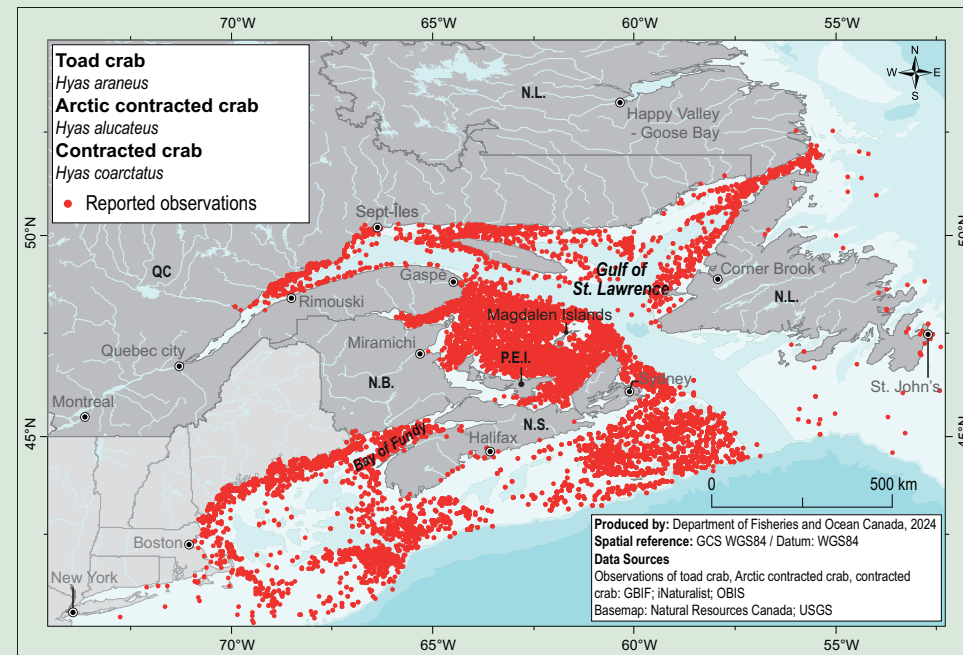
Characteristics

Carapace: attaches debris and invertebrates to its carapace (algae, anemone, etc.)

Colour: reddish-brown to olive green with reddish-orange legs

Photo credit: Claude Nozères
Illustration: Pohle 1990, A guide to decapod Crustacea from the Canadian Atlantic: Anomura and Brachyura. Can. Tech. Rep. Fish. Aquat. Sci. 1771

CRAB OF GENUS *HYAS* (P. 20 TO 22)

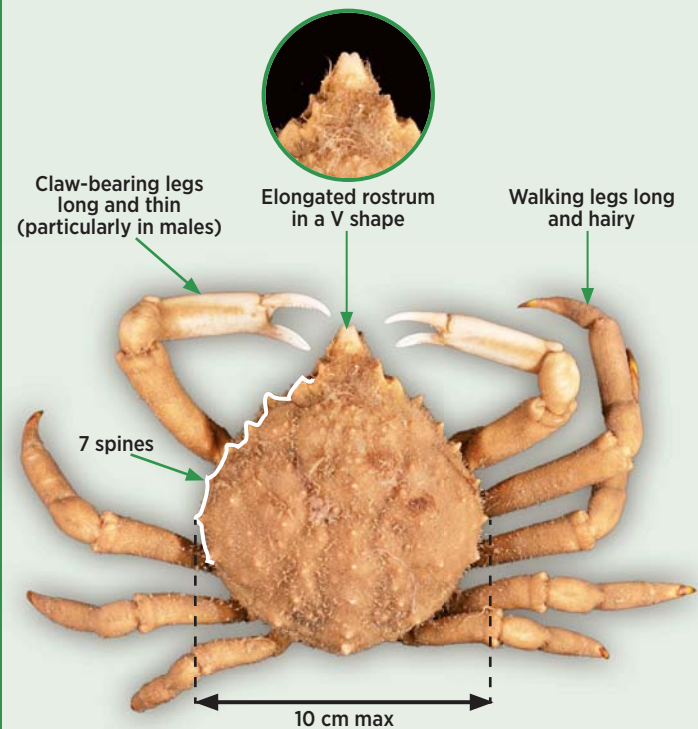


The three species of crabs in the genus *Hyas* are often confused. This map shows the combined observations recorded for all three species. The toad crab is found throughout eastern Canada. The contracted crab is in the Bay of Fundy and western Nova Scotia, while the Arctic contracted crab lives in the Gulf of St. Lawrence up to the coast of Newfoundland and Labrador.

Live below the tide line, generally between 10 and 50 m deep.

Can be found on rocky bottoms, but also on sandy bottoms or soft sea beds.

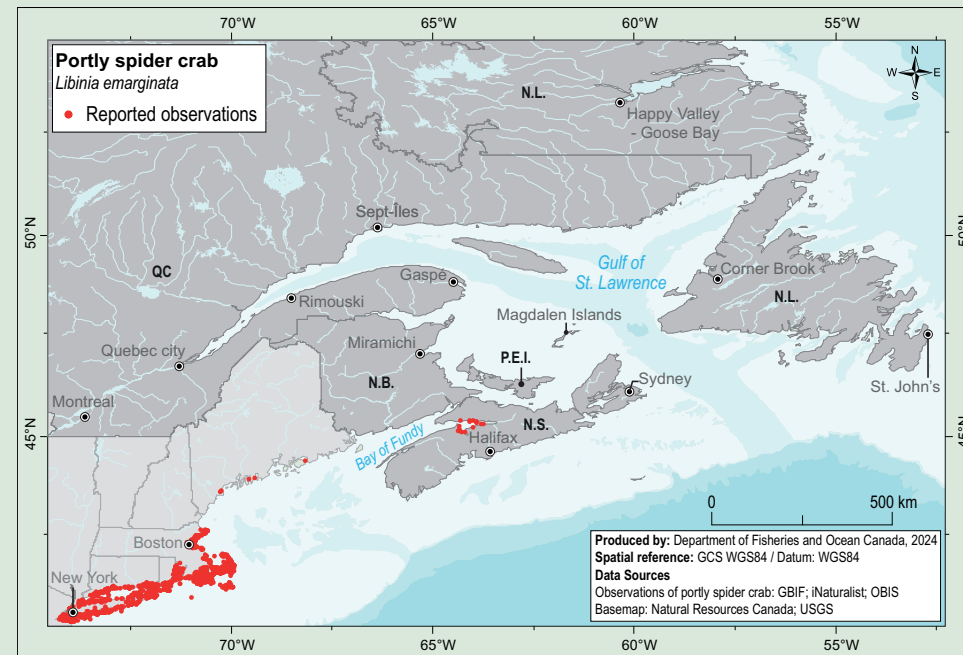
PORTLY SPIDER CRAB *Libinia emarginata*



Characteristics

- Carapace:** round, covered with many spines:
- seven on each side of the carapace
 - nine along the central margin of the body
 - two in a direct line behind the eyes
- Colour:** varies from brown to yellowish-grey
- can cover itself with debris and small invertebrates for camouflage

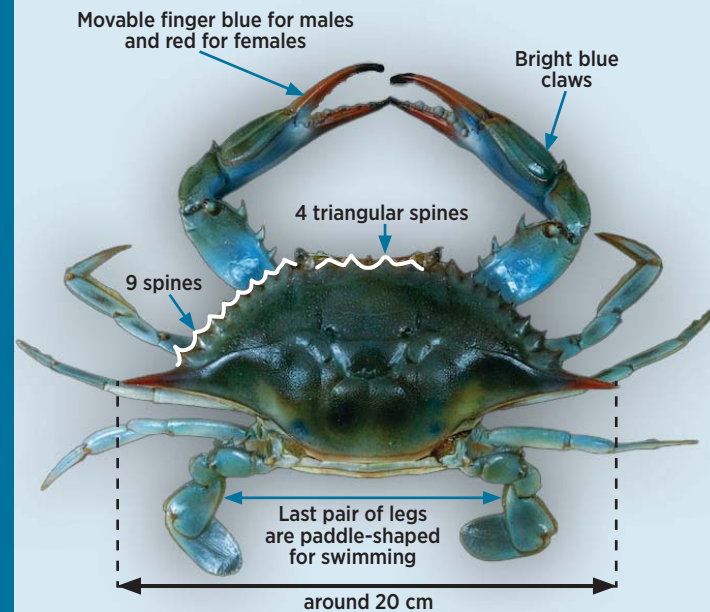
PORTLY SPIDER CRAB *Libinia emarginata*



Lives in saltwater on a wide variety of seabed types.

Generally found at depths between 0 and 50 m but can be found down to 120 m.

BLUE CRAB *Callinectes sapidus*

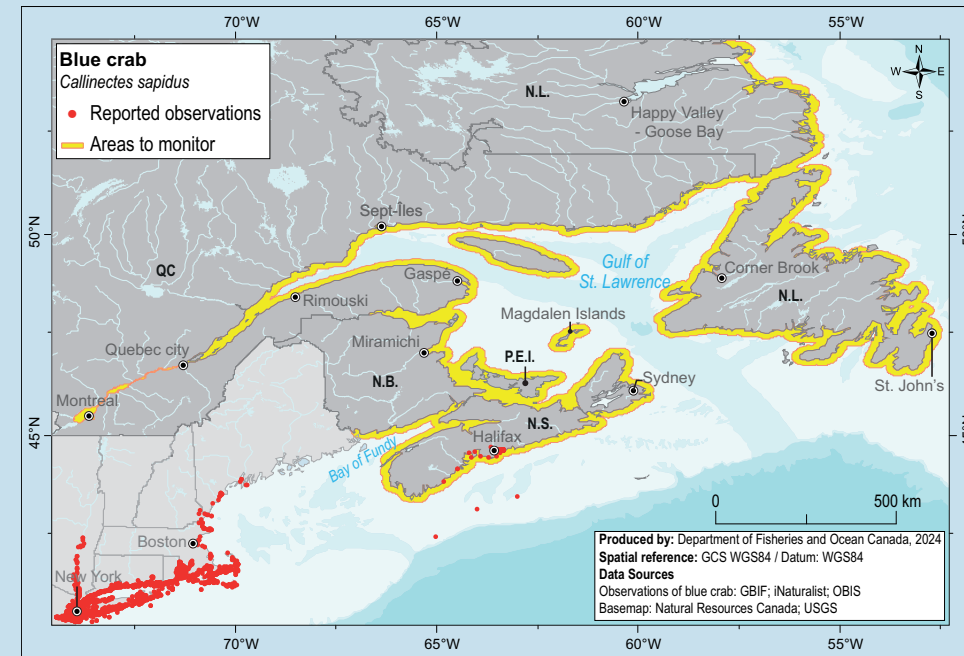


Characteristics

Carapace: last spine is very pointed and twice as large as the others

Colour: olive green, bluish, with a bit of grey

BLUE CRAB *Callinectes sapidus*



Generally found in marine environments but also tolerates brackish waters of estuaries as well as freshwater. Prefers sheltered coastal waters and lagoons.

Generally occurs at depths less than 35 m.

Lives both on the seabed and in the water column.

**Report sightings
in the areas to monitor**

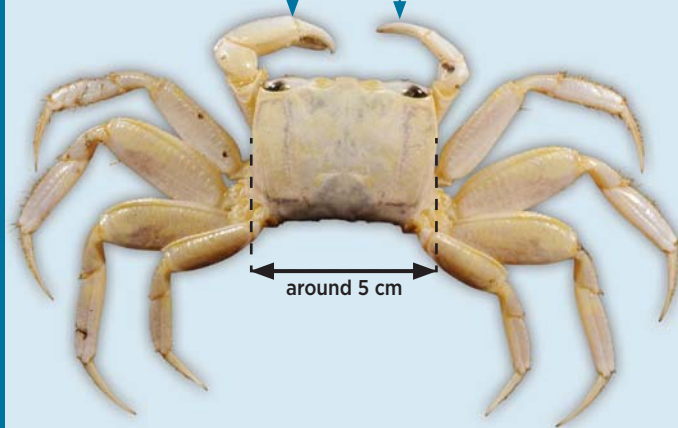
ATLANTIC GHOST CRAB *Ocypode quadrata*

Eyes sticking out of the carapace



Hans Hilgert

Claws of different sizes



around 5 cm

Characteristics

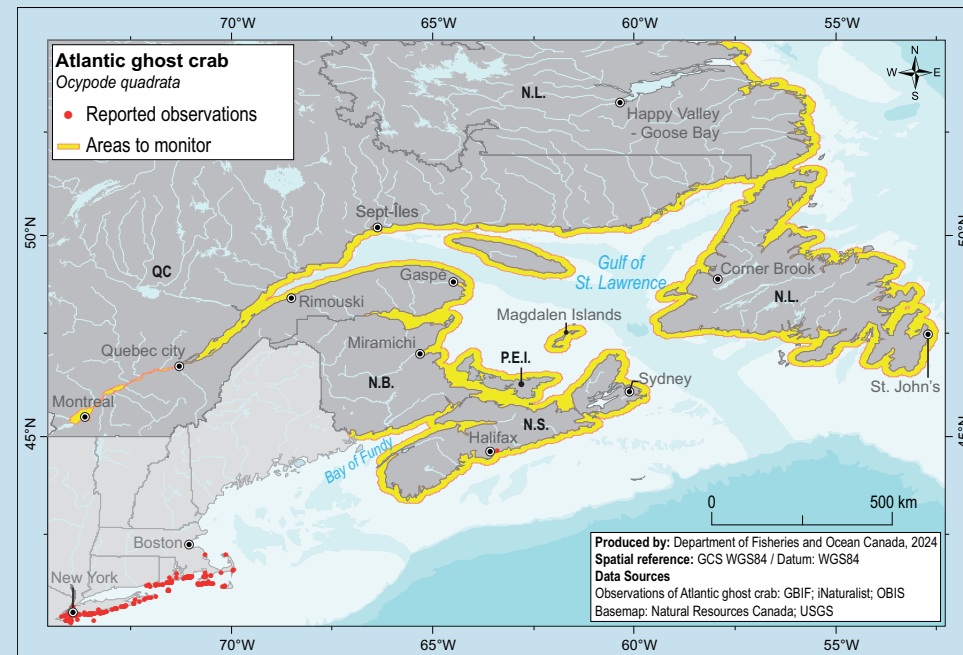
Carapace: square-shaped

Colour: very pale, even white or sand-coloured with yellow legs



Marina Campos Vinhal

ATLANTIC GHOST CRAB *Ocypode quadrata*

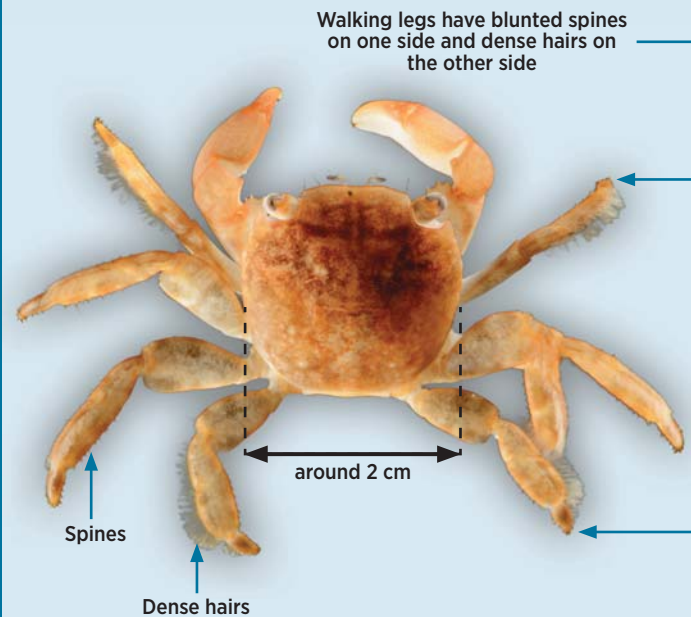


Found in tropical and subtropical regions as well as on sandy beaches.

Occurs in the supralittoral zone, which is the area that is almost always above the waterline but remains wet due to wave action.

Report sightings in the areas to monitor

GULFWEED CRAB *Planus minutus*



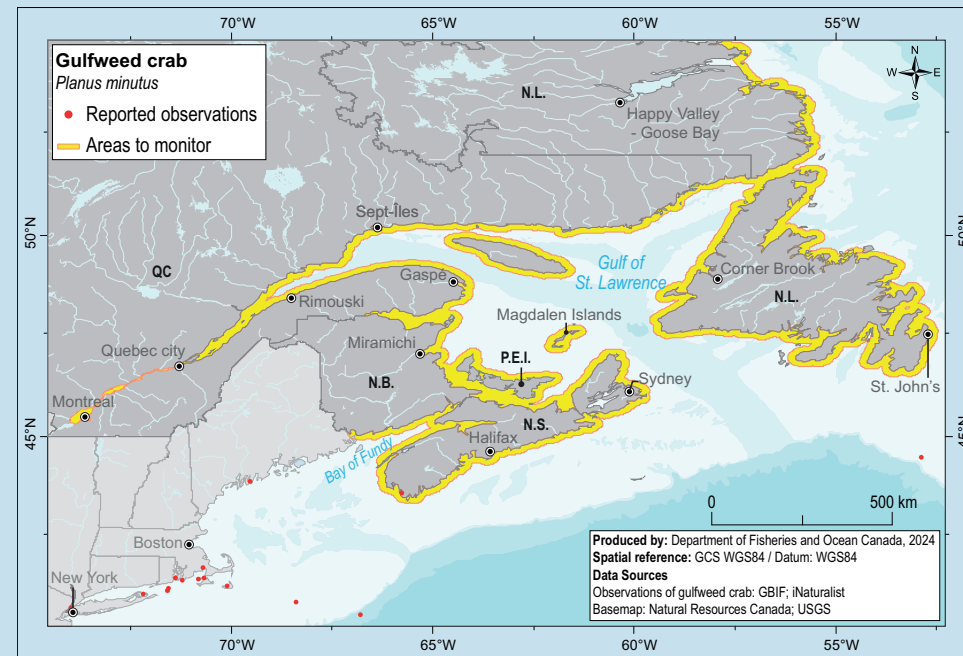
Paul Tavares

Characteristics

Carapace: square-shaped

Colour: variable, enabling camouflage
white spots on the sides or front of the carapace

GULFWEED CRAB *Planus minutus*



Lives floating on Sargassum algae, far from the seabed and shores.

Rarely found on the Atlantic coast of Canada.

**Report sightings
in the areas to monitor**

WHAT TO DO IF YOU FIND AQUATIC INVASIVE SPECIES?

- 1. Try to identify them;**
- 2. Take pictures, note the location (GPS coordinates), number of individuals (if possible), and observation date;**
- 3. Report any aquatic invasive species sightings to Fisheries and Oceans Canada:**



dfo.queais-eaeque.mpo@dfo-mpo.gc.ca
1-877-722-4828