

Blue Crab

Callinectes sapidus

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Pathway

• Ballast water

Impacts



Biodiversity

Native crab populations have been impacted through competing with the blue crab for space and resources.



Human Health

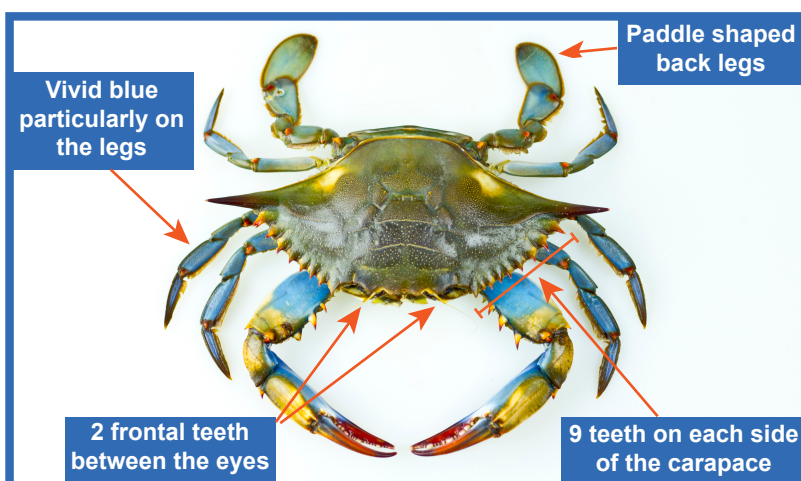
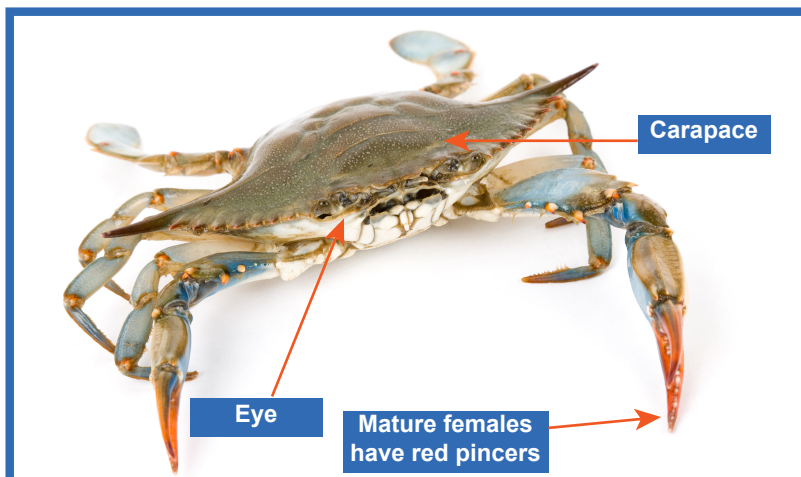
None known.



Economy

Reported to mutilate fish caught in traps and to tear nets. They have also been known to damage shellfisheries looking for their preferred food of clams, mussel and oysters. This has an impact on fisheries operations.

Key ID Features



Description

The back legs are paddle-shaped to facilitate swimming. Both males and females have “aprons”, the part of their undersides that holds the reproductive organs, the female apron is broad and rounded with a “V” shape at the end, the male’s is thinner and shaped like an inverted “T”. The carapace width is approximately twice its length and has 9 sharp ridges known as teeth running along its front edge behind its eye on each side. There are 2 further teeth on the front of the carapace, between the eyes.

Size

Up to 9 cm in length and 22.5 cm in breadth, although individuals up to 27 cm have been known.

Colour

The front is bright blue, particularly along its pincer appendages, the rest of the body is an olive green to brown colour. Mature females have red highlights on the tip of their pincers.

*Note: Images not to scale



Distribution

Native range: Western Atlantic Ocean from Nova Scotia to Argentina, including Bermuda and the Antilles.

Non-native range: Asia, Europe and Hawaii.



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Habitat and Ecology

Habitat: Adults often burrow in muddy sandy bottoms and juveniles can be found in seagrass meadows. They can be found at depths of 0 – 90 m.

Environmental preferences: Tolerates a range of salinities from very salty water through to almost fresh water, however it is particularly common in estuaries. Females are usually found in areas of higher salinity, particularly for egg laying.

Diet: Feeds on clams, mussels, oysters and most other plant or animal matter, including young crabs.

Reproduction: Sexual maturity is reached when their carapace is 10 cm wide, at 12 – 18 months of age. Unlike males, females mate only once in their lifetime, after their final molt. The females attract the males by releasing pheromones into the water. The males will mate with, and then protect the female until their new shell hardens. The females will brood up to 8 million eggs 2 – 9 months after mating. When the female is ready to spawn, she will move to the mouth of the estuary to release her eggs into the saline water, as blue crab eggs cannot tolerate low salinities. The larvae go through 8 stages of molting over 2 months whilst in the water column, before they become adult crabs and settle on the seafloor. Lifespan of up to 3 years but many are harvested by humans before they would naturally die.

Confusion with similar species

Can be confused with other *Callinectes* species occurring in the same area. The primary difference is that other *Callinectes* species, such as *Callinectes danae* (pictured below) have more teeth lining the front of their carapaces: typically 4, whereas the blue crab is the only one to have 2 frontal teeth.



If you think you have seen this species, please contact the person below who will confirm its identity.

Please also refer to the mitigation strategies guidance document, provided as part of the Marine Biosecurity Toolkit.

Further Information

- https://animaldiversity.org/accounts/Callinectes_sapidus/
- <https://www.cabi.org/isc/datasheet/90126>
- <https://www.sealifebase.ca/summary/Callinectes-sapidus.html>

Images

Front: Top © Devonyu / Bottom © DP Fish Co
Reverse: © Wayne Fidler