

# Lady Crab

*Ovalipes ocellatus*

Class: Malacostraca  
Order: Decapoda  
Family: Portunidae  
Genus: Ovalipes

## Distribution

Crabs in the genus *ovalipes* are distributed worldwide. This specific species, *Ovalipes ocellatus*, known as the lady crab, occurs along the eastern seaboard of North America, from Canada south to Florida.

## Habitat

They live in shallow coastal waters and off shore areas with sandy bottoms.

## Food

It is both a predator and a scavenger.

## Reproduction

Courtship takes place between these crabs with the male following and then holding on to a female. When this is acceptable to her, mating occurs. During mating the male clasps the female from behind and they remain together for a period of time. This can be for several hours.



**Moulted shells are found at Burntcoat Head.**

In Canada there are disjunct populations in the Gulf of St. Lawrence and the Northumberland Strait. The Northumberland Strait is a tidal water body between Prince Edward Island and the coast of eastern New Brunswick and northern Nova Scotia. In Nova Scotia they occur in several other coastal areas including the Bay of Fundy and Minas Basin. Most populations occur south of Cape Cod, Massachusetts and continue south along the Atlantic coast. They converge with two other species of *Ovalipes*; *O. stephenson* and *O. floridanus*.

It is most often found in sandy substrates in quite shallow water, including mud banks sand bars. It may occur in surf zones where there is strong wave action and constantly shifting sands.

The lady crab feeds on live or decaying marine organisms such as fish, crabs, or clams. When fish or worms pass by, it comes out of the sand and grabs the animal with its claws.

The testes or ovaries are situated dorsally in the thorax. Testes open externally in the male near the basal segment of the last pair of legs while the ovaries in the female open externally on the ventral surface of thoracic segment 6 (covered by the folded abdomen) The sperm cells produced by the male are housed in cases called spermatophores. During copulation these are transferred to the female and stored in her sperm receptacle (spermatheca). Eggs released from her ovaries become fertilized. These are carried around in her abdomen for a period of time as they develop. They are tiny and number in the thousands. They form a gelatinous mass held in her abdominal flap.



### Development

The female releases her eggs from her abdominal flap into the water. She moves her abdomen rapidly from side to side. This movement causes the eggs to break open and the larvae emerge. These tiny "zoea" larvae now adapt to a new planktonic lifestyle.

### Characteristics

This is a very attractive crab with beautiful patterns on its shell (both male and female). These are reddish purple spots covering its body and claws. In the water and under direct sunlight, the colouring appears iridescent.

### Adaptations

The genus *Ovalipes* belongs to a group of crabs known as "the swimming crabs". The last pair of legs are modified into paddles and are adapted for swimming. The claws are sharp and powerful with jagged teeth. The disruptive colouration provides good camouflage when out in the open water.

### Status/Threats

They are preyed upon by a variety of animals as larvae, as juveniles and as adults.

### Sightings in Nova Scotia

They occur on many coastal areas including the Bay of Fundy and Minas Basin.

There are two main stages of larval development, first as zoea and later as megalops. Zoea are extremely small and are shrimp-like in appearance. They go through several moults, each time becoming slightly larger and adding more limb buds. They continue growing to the second stage - megalops. As they moult during this second larval stage all the basic parts of an adult crab become obvious. When larval development is complete further development leads to the immature and then mature adult form. New little crabs will continue to moult through life until a maximum size is reached of 10 centimetres.



Moulted shell

The carapace of this crab has projections known as frontal teeth between the eye sockets. There are 3 of these. There are 5 on each side behind the eyes known as marginal teeth. The number of these along the carapace help to distinguish this crab from other similar-looking crabs. It has compound eyes on the tips of stalks. The tail of this crab is tucked underneath the body and lies against the abdomen. The tail of the female lady crab is shaped like a rounded triangle, while the tail of the male is pointed and narrow.



They have adapted to strong wave action and constantly shifting sands by burrowing just beneath the sand surface. As waves toss the sand around, the crab quickly shifts position and digs back under the surface. The eyes, on stalks, can remain just above the surface allowing the crab to remain hidden from predators as well as being an effective hunter. The lady crab will dart out of its hiding place using its powerful paddles to swim after its prey, grabbing the animal with its claws. They are considered to be an aggressive crab.



Predators include fish, shore birds, and lobsters. They also include other crabs. Lady crabs prey on and are prey of a variety of molluscs and other crustaceans.

Empty shell moults or carapaces are often found along shorelines. Living adults are well camouflaged but can be observed.

