

# **Photographic Guide to the Freshwater and Terrestrial Crabs of Dominica**

Kristy Venable

Dominica Study Abroad 2004

Dr. James Woolley  
Dr. Tom Lacher

## Abstract

Dominica has been referenced to be home to 19 species of freshwater and terrestrial crabs (Chace, 1969). However, a concise, comprehensive field guide to Dominican crabs is not readily available to interested students. The purpose of this project is to generate a photo field guide to freshwater and terrestrial crabs of Dominica. The guide compiles information from various sources on each species' general characteristics, habitat, location on Dominica, and worldwide distribution.

After arriving on Dominica attempts were made to capture and/or observe as many species as possible and document the exact location, general habitat characteristics, method of capture, and observed behavior. One individual of each species found was captured and Dr. Jim Woolley took color photographs in the lab using a Nikon 1DX digital camera. Images were saved as RAW files and converted to jpg files for insertion into Microsoft Word. A total of nine species were captured and photographed.

## Introduction

The terrestrial and freshwater crabs of Dominica are a diverse and fascinating assemblage. The most recent comprehensive guide to the freshwater and terrestrial crabs of Dominica was compiled by Fenner A. Chace and Horton H. Hobbs in 1969. This guide is very complete, but is quite technical and difficult for students to use. It includes drawings of the crabs but no photographs. Another brief description of the crab fauna of Dominica was presented in Dominica Wildlife Checklists by Evans and James (1997), but the information provided was insufficient to identify crabs in the field. Color photographs and recent observations are included for the nine crabs discovered in this study.

## Materials and Methods

Crabs were sought after at every location the group visited: Rodney's Rock, Champagne Beach, Scotts Head, Saint David's Bay, Batali Beach, Cabrits, and Springfield Station. Crabs were generally caught by hand, although a few of the larger ones required a net for personal safety. All but one collection was performed in the day, although after dark

would be preferred due to the nocturnal habits of most of the crabs. The crabs were then transported in cardboard boxes with wet cloths to the lab at Springfield Station.

The crabs were identified using the key and description of crabs by Chace and Hobbs (1969). Dr. Woolley took professional quality photographs of the crabs using a Nikon 1DX digital camera. The photographs were saved as RAW files and later converted to jpg files, for insertion into Microsoft Word documents. The crabs were placed in a “studio” constructed from four 10 inch by 12 inch plexiglass squares. The squares were secured together at the corners using clear tape. Dr. Woolley took the majority of the photographs on gray cards to accurately portray the crabs coloration. The crabs were fed mangos, bananas, and bread and kept moist until their release to the same location or a similar habitat. There were few casualties.

## Results

| <i>Species</i>              | <i>Common Name</i> | <i>Location</i>  |
|-----------------------------|--------------------|--|
| <i>Cardisoma guanhumi</i>   | White Crab         | Batali Beach, Cabrits  |
| <i>Coenobita clypeatus</i>  | Hermit Crab        | Rodney’s Rock, Batali Beach, Cabrits, Saint David’s Bay                |
| <i>Gecarcinus lateralis</i> | Touloulou          | Rodney’s Rock, Champagne Beach, Batali Beach                           |
| <i>Gecarcinus ruricola</i>  | Black Crab         | Rodney’s Rock, Champagne Beach, Batali Beach                           |
| <i>Geograpsus lividus</i>   |                    | Batali Beach, Scotts Head  |
| <i>Grapsus grapsus</i>      |                    | Rodney’s Rock, Champagne Beach, Batali Beach, Staircase of the Serpent |
| <i>Guinotia dentata</i>     | Cyrique            | Springfield Station, Emerald Pool                                      |
| <i>Ocypode quadrata</i>     |                    | Saint Davids Bay   |
| <i>Sesarma roberti</i>      |                    | Batali River   |

Species collected on Dominica.

## Conclusions

Nine of nineteen species of crabs were observed that have been documented on Dominica. This number may have been increased by collecting after dark when most of the crabs would be active and by visiting several other important crab habitats. A few of the places that the remaining species may have been found are most importantly the mudflat south of the Indian River at Portsmouth where 7 of the species not personally observed were documented previously, and the Mero, Salisbury, and Layou Rivers.

Future projects would be recommended on several species, including Guinotia dentata, Grapsus grapsus, and Cardisoma guanhumi. Guinotia dentata would be very easy to study because it is abundant at Springfield Station and is very easy to catch. A behavioral study of this crab species would be very interesting. Grapsus grapsus is extremely common at Rodney's Rock, and its escape behavior is quite fascinating. Cardisoma guanhumi, the White Crab, is large, conspicuous, easy to catch, and apparently lives quite a long time. The juveniles are extremely abundant at the swamp at Cabrits. However, this species only wanders from its burrow at night.

# Crab Species of Dominica

## Phylum Arthropoda

### Class Crustacea

### Order Decapoda

### Suborder Reptantia

### Section Anomura

### Family Porcellanidae

*Petrolisthes quadratus*

### Family Coenobitidae

*Coenobita clypeatus*. Hermit Crab

### Section Brachyura

### Family Portunidae

### Subfamily Portuninae

*Callinectes bocourti*

*Callinectes sapidus*

### Family Pseudothelphusidae

### Subfamily Pseudothelphusinae

*Guinotia dentata*. Ciriques

### Family Grapsidae

### Subfamily Grapsinae

*Geograpsus lividus*

*Goniopsis cruentata*

*Grapsus grapsus*. Zagaya

### Subfamily Sesarminae

*Cyclograpsus integer*

*Sesarma miersii*

*Sesarma roberti*

*Plagusia depressa*

### Family Gecarcinidae

*Gecarcinus ruricola*. Black Crab

*Gecarcinus lateralis*. Touloulou

*Cardisoma guanhumi*. White Crab

### Family Ocypodidae

### Subfamily Ocypodinae

*Ocypode quadrata*

*Uca burgersi*. Fiddler Crab

*Uca vocator*. Fiddler Crab

*Ucides cordatus*

## **Phylum Arthropoda**

Arthropods are classified as invertebrates having jointed appendages. Arthropods are generally considered to be bilaterally symmetrical. Arthropods consist of a longitudinal series of segments, on all or some of which is a pair of appendages, and have an exoskeleton that is flexible at intervals to provide movable joints (Headstrom). There are more species of arthropods, than all other species of animals put together (Sefton). Includes crustaceans, insects, spiders, mites, scorpions, centipedes, and millipedes.

### **Class Crustacea**

Crustaceans are Arthropods having a hard but flexible covering (rather than brittle such as a clam). They are generally aquatic, breathing by gills or the body surface; they have two pairs of pre-oral antennae, at least 3 pair of post-oral appendages that act as jaws, and compound eyes (Headstrom). However, there have been modifications to these structures as well as adaptations to allow terrestrial and freshwater species. With approximately 30,000 species crustaceans have been called the “insects of the sea” (Colin). Includes crabs, shrimps, lobsters, barnacles, crayfishes, fairy shrimps, sow bugs, and beach fleas.

### **Order Decapoda**

The head and thorax of Decapods are fused to form the cephalothorax or carapace (Colin). They have stalked eyes, one pair of mandibles, two pair of maxillae, three pair of maxillipedes, and five pair of thoracic legs. The first pair of thoracic legs is usually larger with pinching claws (Headstrom). This is the largest order of crustaceans, with over 8,000 species (Colin). Includes lobsters, crabs, shrimp, and crayfish.

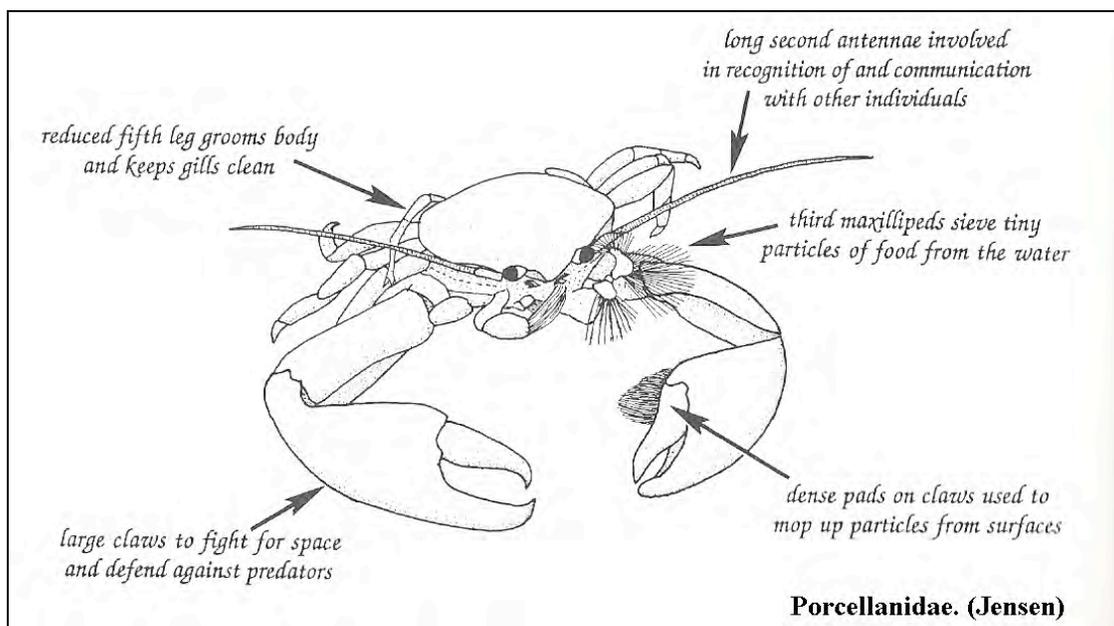
### **Suborder Reptantia**

The order Decapoda is divided into two suborders, Natantia (shrimp and prawns) and Reptantia (lobsters and crabs). The Reptantia are modified for crawling or swimming, and the abdomen may be reduced (Colin).

## Section Anomura

Anomuran crabs can be distinguished from crabs belonging to the section Brachyura by having the second pair of antennae outside the eyes and appearing to have only three pairs of walking legs (Jensen). They have evolved a wide variety of feeding structures, and may be carnivores, omnivores, filter and deposit feeders, and some species use all of these methods (Jensen). Anomura means “irregular-tailed” but applies only to hermit crabs and stone crabs (Ingle). Approximately 1,600 species (Ingle). Includes hermit crabs, squat lobsters, and porcelain crabs.

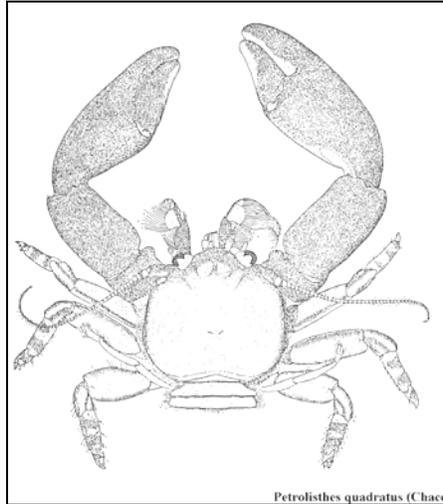
### *Family Porcellanidae*



Porcelain crabs are filter feeders with small rather flattened bodies with large, broad, and flattened claws. The first three pair of walking legs are well developed, and the last pair is small and directed forward along the carapace (Headstrom). The third pair of maxillipads is large and fan-like and is used to strain small particles from the water (Jensen). They actively sweep water when it is calm and feed passively when a current is present. They may have a tuft of hair on the inside of their claws that may be used to sweep material from the surface of rocks for feeding. They are often found beneath rocks. Some species can swim backwards by flapping their broad abdomens. They often have bright coloring on their mouthparts that serve as a recognition signal during breeding (Jensen). Porcelain crabs are generally tropical, but a few species occur along the Southern Atlantic Coast.

## **Petrolisthes quadratus**

### Porcelain Crab



#### ***Description***

Carapace broader than long. Front broadly triangular. Carapace tan with greenish-brown anterior and lateral areas. Small species, maximum carapace length about 8 mm.

#### ***Habitat***

Cobble beach in the splash zone near sand level.

#### ***Location***

Chace and Hobbs (1969) observed *Petrolisthes quadratus* only on the South side of the isthmus that connects Scotts Head to the mainland.

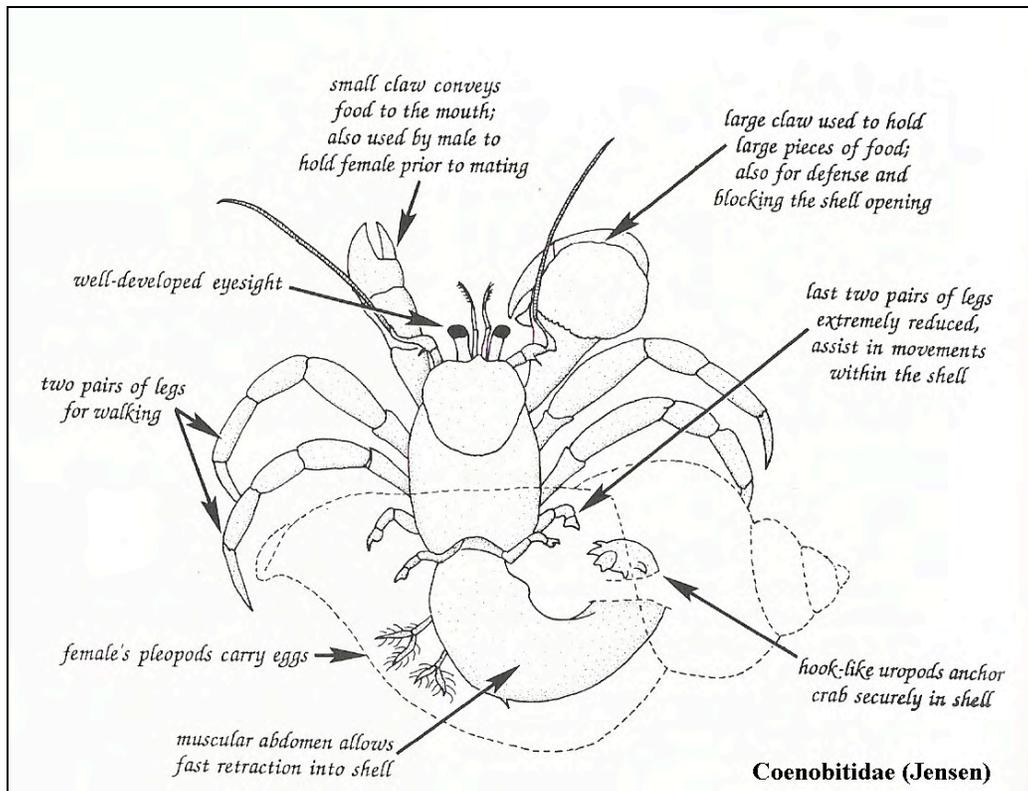
#### ***Personal Observations***

I visited the south side of the isthmus of Scotts Head at 10:00 am and spent about an hour searching for the species in the cobble. I only found *Grapsus grapsus* and *Gepgrapsus lividus*. I saw one of each of these species.

#### ***Distribution***

Puerto Rico, Dominica, Isla Cubagua, Curacao, Aruba, Panama.

## Family Coenobitidae



The family Coenobitidae includes hermit crabs, which have a soft abdomen and seek protection in hollow objects, such as gastropod mollusk shells and occasionally plant stems and sponges. Each species has special adaptations for the particular object that it occupies, and prefers a distinct size and shape shell. Some species have lost the appendages on the right side of their abdomen so that they fit snugly against the inner column of the shell (Jensen). The first pair of thoracic legs is much longer than the rest and has claws. Generally the right claw is larger than the left and can function as a lid to close the shell opening when the crab withdraws fully (Headstrom). The second and third pair of thoracic legs have hooks for walking or dragging their shell, while the fourth and fifth pair are reduced, and the sixth pair is modified to hold the crab in its shell (Headstrom). Hermit crabs have a wide variety of feeding adaptations, including sorting organic material from sediments, filter feeding using the maxillipeds, scavenging, or predation (Jensen). Hermit crabs are distributed throughout the world and are mainly marine dwellers, although some tropical species live on land including *Coenobita clypeatus*.

## Coenobita clypeatus

### Hermit Crab



#### ***Description***

Usually occupies gastropod shells. Carapace mauve dorsally. Has a large claw with a purple patch. Eystalks reddish orange, cornea brick red. Large to medium sized species, maximum carapace 50 mm.

#### ***Habitat***

May be found on sandy or rocky beaches or riversides, on the forest floor among the leaf litter, in or on tree stumps, and a variety of other places.

#### ***Location***

Throughout all coastal areas of Dominica, even on cliffs 100 feet above the ocean.

According to Chace and Hobbs (1969) the largest number of individuals observed at one time was immediately south of the mouth of the Rosalie River. Hundreds of individuals were observed here.

#### ***Personal Observations***

Very small individuals were found on the cobble beach at Rodney's Rock. They are abundant here although not quickly apparent. If you sit quietly you can see them emerge from the rocks. Many small individuals as well as a few very large ones were found at Batali Beach. The large individuals were found in hollows of trees or logs, while the small ones could be seen crawling on the forest floor. Small individuals were also abundant at Cabrits and Saint David's Bay.

#### ***Distribution***

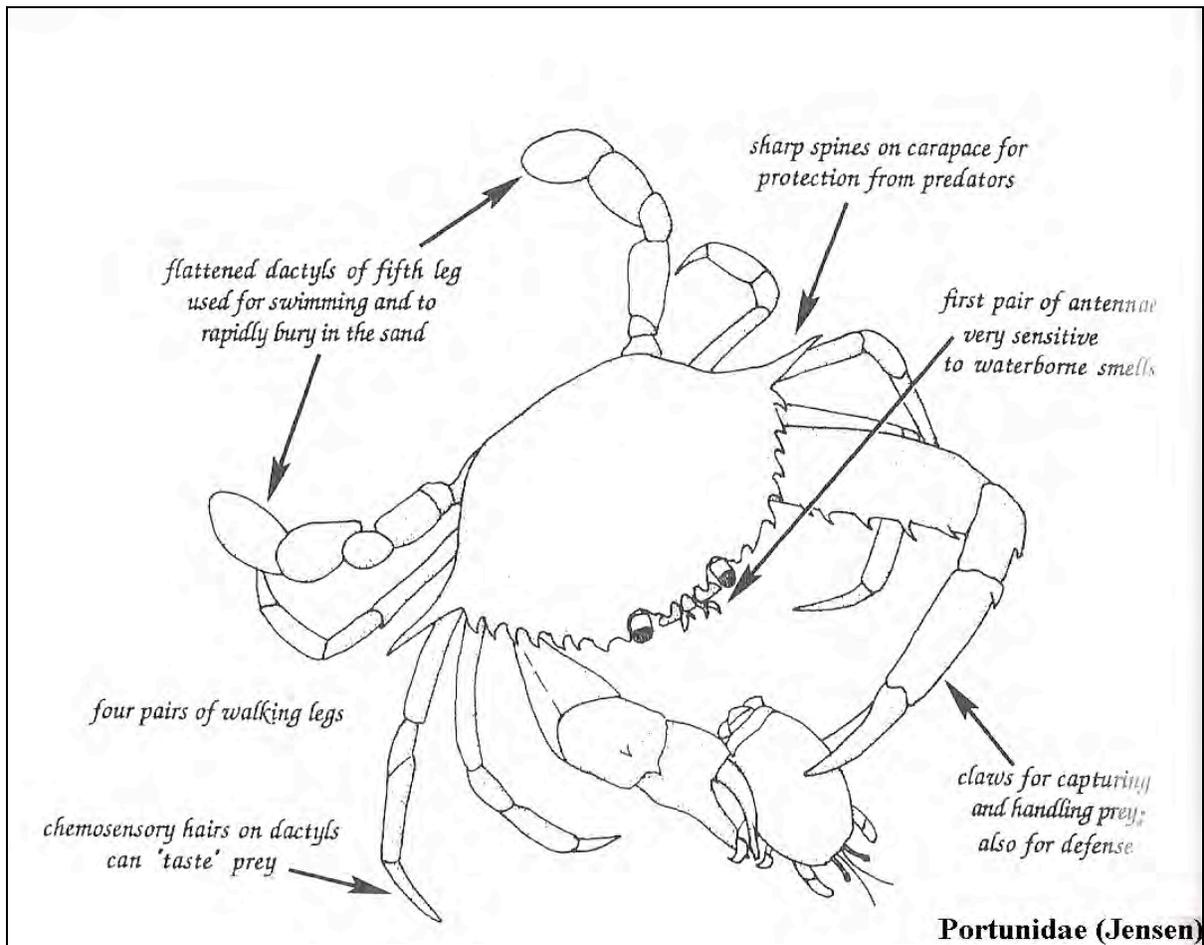
Southern Florida to Venezuela

## Section Brachyura

True Crabs have a flat and broad body and a short abdomen that is bent sharply under the thorax. The eyestalks are long and fit into sockets on the carapace. The second antennae are placed to the inside of the eyes, and the fifth pair of pereiopods is always visible (Ingle). The third pair of maxillipeds is broad and flat and covers the mouthparts like a lid (Headstrom). The life history of true crabs is complex with several stages before adulthood. The early larvae look so unlike the adults that many were once classified in distinct genera. True crabs typically have internal fertilization and the females may store the sperm for a fairly long time before using it to fertilize their eggs (Jensen).

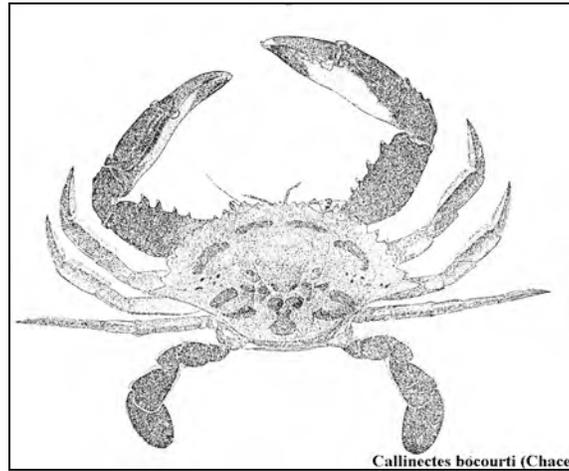
There are approximately 1,000 species of true crabs, ranging from the size of a wheat grain to 15 inches across the carapace (Headstrom). Most live in the sea on or near the bottom. Some have adaptations for swimming and may be seen at the surface. However, there are some that live at or near the high water mark and have become essentially terrestrial. In these species the shell covering of the gills is considerably inflated and lined with a thick membrane richly supplied with blood vessels (Headstrom). This membrane allows them to use atmospheric oxygen in a way similar to the lungs of mammals. Those that dig deep burrows have modified gills that absorb and retain moisture from damp sand (Headstrom). Terrestrial forms are found in tropical and subtropical regions and must return to the sea to reproduce and allow larval crabs to develop. These species may damage crops during their nocturnal wanderings. True crabs are generally scavengers, but terrestrial forms may include plants in their diet. Approximately 4,500 species (Ingle). Includes swimming crabs, mud crabs, fiddler crabs, walking crabs, ghost (sand) crabs, spider crabs, box crabs, grapsid crabs, land crabs, and sponge crabs.

## Family Portunidae



The swimming crabs are an important and diverse group in the tropics. They are usually lightly built, quick, and superb swimmers, with a transversely oval body (Headstrom). The dactyls on the last (fifth) pair of legs are flattened for propelling themselves through the water (Jensen). They prey on a variety of smaller organisms and are quick enough to catch small fish and shrimp.

## Callinectes bocourti



### ***Description***

Carapace olive to forest green with purplish red markings. Eystalks green basally, yellowish tan more distally, with reddish black cornea. Antennules reddish brown. Large species, maximum carapace length in midline about 55 mm.

### ***Habitat***

Requires an estuarine habitat with few riffles. Rare on Dominica except in a few streams such as the Mero and Salisbury Rivers, both of which lack any noticeable current during much of the drier seasons of the year.

### ***Location***

Observed by Chace and Hobbs (1969) only at the mouth of the Mero and Salisbury Rivers, and a single specimen was found in the mud flat adjacent to the mouth of the Indian River at Portsmouth. It was abundant only at the mouth of the Mero River.

### ***Distribution***

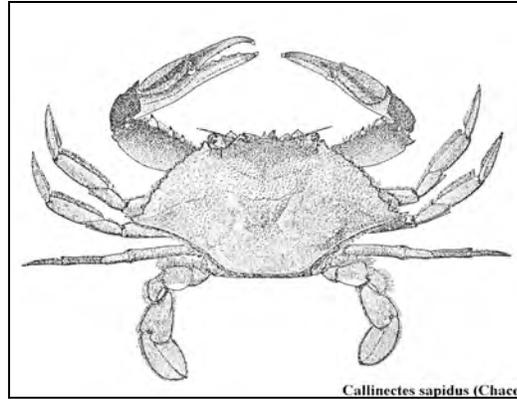
West Indies and British Honduras to Estado de Santa Catarina, Brazil

# Callinectes sapidus

## *Blue Crab*



Callinectes sapidus (Jensen)



Callinectes sapidus (Chace)

### ***Description***

The carapace is about twice as wide as it is long with a long sharp spine on each side (Headstrom). The carapace of the Blue Crab is primarily gray or bluish-green with red on the spines. The tips of the chelae (claws) are blue in males and red in females (Ingle). This is an estuarine species that can tolerate freshwater (Jensen). It can swim rapidly near or at the surface of the water, and burrows quickly in the mud when concealment is necessary. It generally eats decaying animal matter and vegetation. This is the most important crab species commercially fished in the U.S. (Ingle). A very large species, maximum carapace length in midline about 94 mm.

### **Habitat**

Streams and rivers with few riffles.

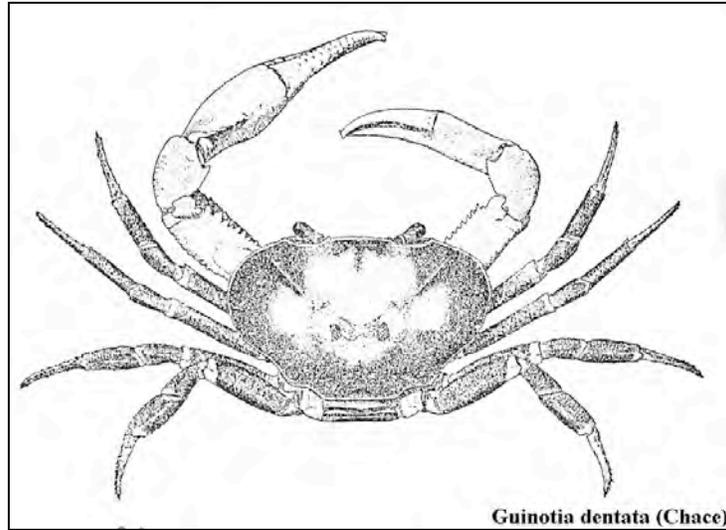
### **Location**

Has only been observed by Chace and Hobbs (1969) in three streams on Dominica, the Layou and Salisbury Rivers, and a single large individual in the Lamoins River south of Portsmouth. It is not abundant at any of these locations. Less tolerant of high pollution and muddy water than *Callinectes bocourti*.

### ***Distribution***

Nova Scotia to Uruguay, introduced into coastal waters of Denmark, Netherlands, France, Italy, Greece, Turkey, and Israel.

## Family Pseudothelphusidae



## **Guinotia dentata**

Cyrique



### ***Description***

Carapace rather broad, about 3/5 as long as wide. Carapace chocolate brown and yellow, with a pair of chocolate brown spots toward the posterior of the carapace. In some almost the entire dorsal surface of the carapace is yellow, in these the brown spots may be smaller and lighter. Eyestalks are yellow to yellowish tan, cornea are black. A large species, maximum carapace length is 60 mm.

### ***Habitat***

Found anywhere that freshwater is available such as streams, ditches, ponds, lakes, seepage areas or burrows.

### ***Location***

According to Chace and Hobbs (1969), in the Layou River drainage it occurs from just above the lowermost bridge well onto the slopes of Morne Trois Pitons and one individual was seen in Boeri Lake at an altitude of 2,850 feet. It is found in streams on most parts of the island.

### ***Personal Observations***

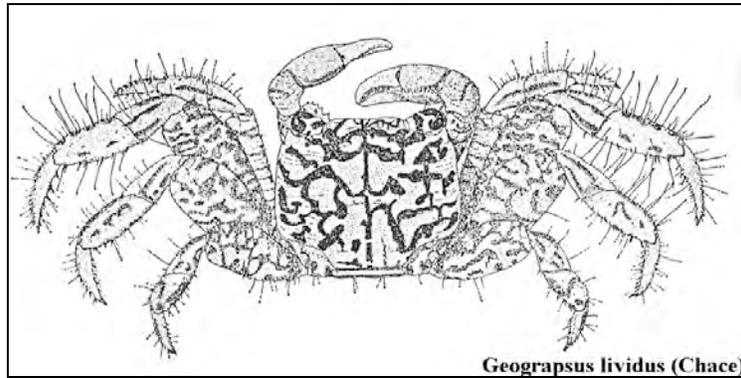
Abundant at Springfield Station, especially near the Check Hall River. They dig burrows on the sides of banks and under large rocks. The larger crabs may be found high on the hill adjacent to the station under the roots of large trees where it stays damp. One very large crab was caught while climbing a vertical portion of a large tree. They are easy to capture by hand if found away from their burrow and the waters edge. They are active both day and night, although they seem to venture further from their burrows at night, especially if it is a rainy night. The temperament varies from aggressive to docile, with the larger crabs being more aggressive. I observed them mostly on land, although one was seen in the Check Hall River. They can be found under leaf litter or around and under rocks or other structures. There are a number of burrows near the stairs of the Spring House and four crabs were observed in the Spring House. Two were seen at Emerald Pool.

### ***Distribution***

Guadeloupe, Dominica, Martinique, Saint Lucia I.



## Family Grapsidae



Grapsid crabs generally have a squarish carapace, fairly large eyes, and are very fast and agile out of water. They prey on smaller animals, scavenge, or use the spoon-like tips of their claws to scrape diatoms and algae off the surface of objects (Jensen).

## Geograpsus lividus



Adult *G. lividus*



Juvenile *G. lividus*

### **Description**

Carapace subrectangular about 4/5 as long as wide. Cornea slightly wider than eyestalk. Walking legs broad and flattened. Color pattern characterized by large dark irregular patches on a light background. Ground color light yellowish or bluish green with highly variable bold maroon pattern. Eyestalks greenish with maroon markings.

### **Habitat**

Found along rocky and cobble beaches where it ventures among the rocks above the high-tide line and often seeks shelter among litter and debris wedged between and under the rocks.

### **Location**

According to Chace and Hobbs (1969) Geograpsus lividus is abundant below Tarou Cliffs at the base of a retaining wall where plant debris are wedged against it. Here it lives no more than 12 to 15 feet from the surf.

### **Personal Observations**

Found at Batali Beach near the shoreline. Several juveniles were found in the tidal zone. The juveniles coloration is quite different from the adults, the markings are much fainter with more of a bluish tone (see above). One adult was found under the edge of a large rock near the shoreline. This was the only adult seen. All were found after dark.

### **Distribution**

Bermudas and the Florida Keys to Estado de Sao Paulo, Brazil; Eastern Atlantic from Senegal to Northern Angola; Eastern Pacific from Southern Baja California to Northern Chile; Hawaii

## **Goniopsis cruentata**



Brachyura Gallery ([www.nhm.org](http://www.nhm.org))

### ***Description***

Carapace subrectangular, more than 4/5 as long as broad. Cornea about as wide as eyestalk. Color pattern characterized by fine dark marbling on light background on most of carapace and large, often ocellated spots on lateral portions of carapace. Carapace yellowish tan to golden with purple markings consisting of horizontal and oblique lines. Eyestalks purplish with black cornea. A fairly large species, maximum carapace length in midline nearly 50 mm.

### ***Habitat***

Found in marshes where it digs burrows.

### ***Location***

Observed by Chace and Hobbs (1969) at two locations;

- Low, somewhat muddy area near the mouth of the Mero River. Only one observed
- A marsh adjacent to the Indian River at Portsmouth, a number of individuals were seen along its margin.

### ***Distribution***

Bermudas to Estado de Sao Paulo, Brazil; eastern Atlantic from Senegal to northern Angola.

# Grapsus grapsus

## Zagaya



### *Description*

Carapace subcircular. Cornea slightly wider than eyestalk. Walking legs moderately broad and flattened. Color pattern of numerous irregular light spots and splotches on a darker background. Ground color of carapace maroon brown to black with blue-gray markings. Eyestalks bluish cream below with maroon lines and spots above. Cornea green to black. Large species, maximum carapace length 77 mm.

### *Habitat*

Abundant on the leeward and windward sides of the island. Can be seen perched on exposed rocks being washed by the surf or among the stones along rocky beaches within splash distance of the waves.

### *Location*

As recorded by Chace and Hobbs (1969) large numbers can be found clinging to the seawall at the mouth of the Indian River at Portsmouth, where they may crawl 6 to 10 feet above the water surface.

### *Personal Observations*

Abundant at Rodney's Rock, Champagne Beach and Batali Beach. Six dried carapaces seen at the Staircase of the Serpent. Found perched on top of rocks partially submerged in the water. When pursued they scuttle to the other side of the rock and if pursued further drop quickly into the water. Very small juveniles may hide in a crack where they can be approached, spooked out of the crack and caught by hand. Larger individuals are best caught with the cooperation of two people. Large crabs generally drop into the water when you are within 10 feet of them. With large rocks it's possible to sneak up on the opposite side of the rock and catch the crab as a team. These crabs lose claws and legs easily and require special care.

### *Distribution*

Rocky shores from the Bermudas and Southern Florida to Estado de Pernambuco, Brazil; Eastern Atlantic from Southern Portugal to Northern Angola; Eastern Pacific from Central Baja California to Central Chile.



## Cyclograpsus integer



Brachyura Gallery ([www.nhm.org](http://www.nhm.org))

### *Description*

Carapace subrectangular, broad, less than  $4/5$  as long as wide. Eyes rather small, cornea narrower than basal portion of eyestalk. Entire crab orange to tan with some areas slightly darker than others. Anterior half of carapace dark with pale orbital margins. Lower surfaces also orange tan but slightly lighter in color than upper. Some individuals with greenish suffusion underlying tan, thus greenish tan rather than orange tan. A small species, maximum carapace length in midline about 13 mm.

### *Habitat*

Found on cobble and rocky beaches along the high tide and intertidal zones.

### *Location*

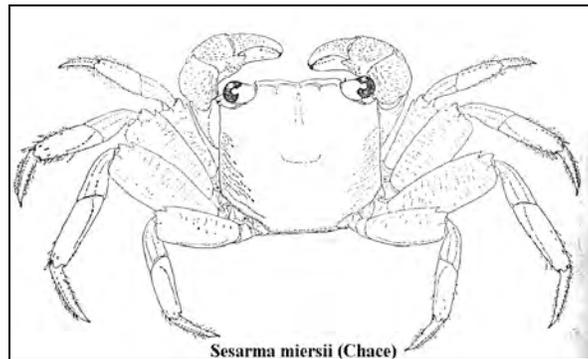
Chace and Hobbs (1969) observed this crab at two locations:

- Tarou Cliffs, in the splash area along a rocky beach
- Windward (south) side of the isthmus at Scotts Head, on a cobble beach.

### *Distribution*

Bermudas and southern Florida to Brazil; eastern Atlantic from Senegal to the Congo.

## Sesarma miersii



### *Description*

Carapace subquadrate, about 9/10 as long in midline as wide. Cornea slightly wider than eyestalk. Walking legs flat and moderately broad. Carapace of immature male pigmented in shades of brown, tan, and cream. Eyestalks brown with cream dorsal longitudinal stripe; cornea black.

### *Habitat*

Only one found in a mudflat at the base of a tree buttress.

### *Location*

A single specimen was collected by Chace and Hobbs (1969) from the low bank on the west side of the large mudflat just south of the Indian River at Portsmouth.

### *Distribution*

Bahamas to Uruguay

## Sesarma roberti



### ***Description***

Carapace subquadrate, nearly as long as wide. Walking legs long and flattened. Ground color of carapace tan to dark brown with cream to straw markings. Eyestalks dark red. Cornea chartreuse (green). Medium-sized species, maximum carapace length 27 mm.

### ***Habitat***

Common semiterrestrial crab. Occurs in seepage areas along streams to an elevation of about 1,000 feet, but is more common at lower elevations. It is found on and around exposed rocks.

### ***Location***

According to Chace and Hobbs (1969) large numbers of this crab occur between the upper bridge across the Layou River and the warm spring, about 100 yards upstream, along the foot of the adjacent cliff. Observed at 34 other locations.

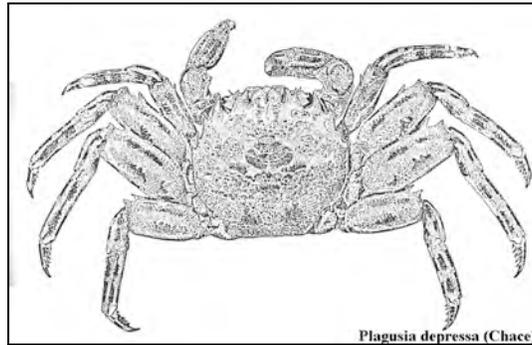
### ***Personal Observations***

Found under rocks lining the edge of the Batali River. Found at least 100 feet upstream from the mouth of the river between the ocean and a bridge that crosses the river. It attempts to wedge itself under rocks when pursued, and can be removed by gently working the rocks away and grabbing it when it runs for the next rock. Not one attempted to run into the water when pursued. They can be found anywhere there is a small pool of water, such as a hole in a rock or a hollow in a tree. I observed crabs in both of these places.

### ***Distribution***

West Indies, Veracruz, Mexico to San Juan del Norte, Nicaragua; Venezuela

## Plagusia depressa



### ***Description***

Carapace subcircular, about 9/10 as long in midline as wide. Eyes comparatively small, cornea slightly narrower than eyestalk. Carapace olive tan with brown to black tubercles and dark brown or black areas dorsally. Eyestalks pale olive with dark brown to black cornea. A rather large species, maximum carapace length in midline nearly 60 mm.

### ***Habitat***

*Plagusia depressa* is a marine crab that is frequently found clinging to rocks at tide level.

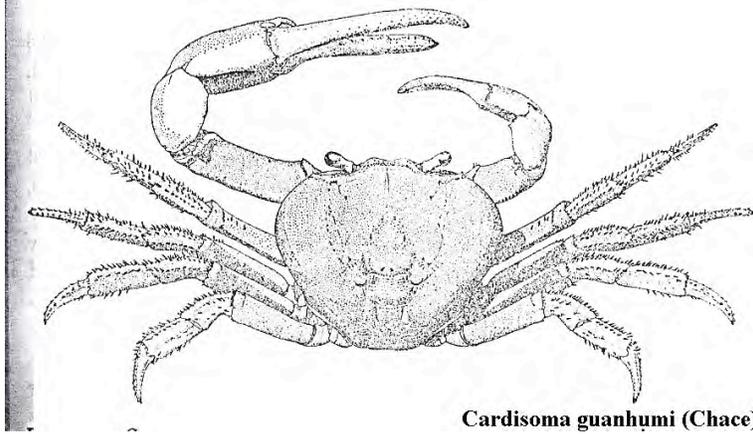
### ***Location***

Observed by Chace and Hobbs (1969) only at the mouth of the Indian River at Portsmouth on a concrete retaining wall. Only three specimens collected and return trips have allowed no further observations.

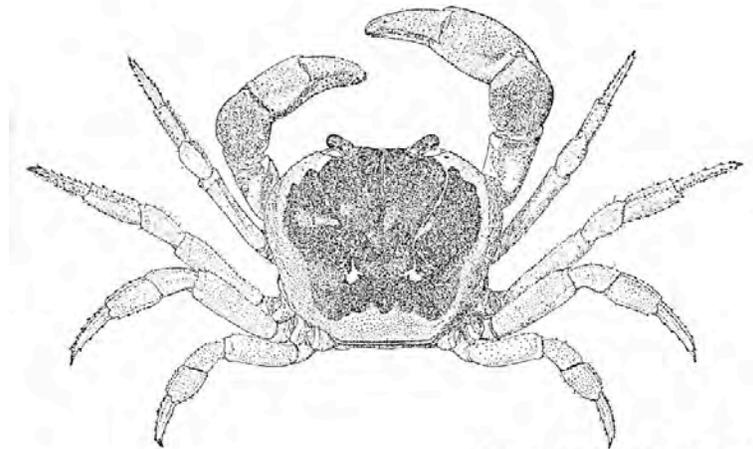
### ***Distribution***

North Carolina to Estado de Pernambuco, Brazil; eastern Atlantic from Mauritania to northern Angola.

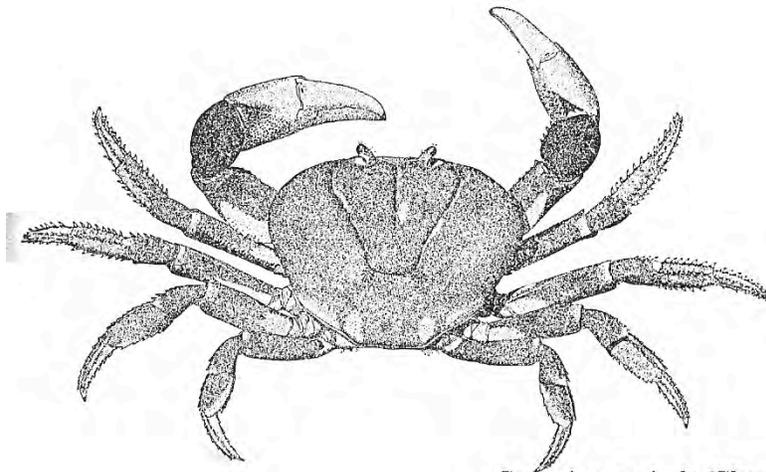
*Family Gecarcinidae*



***Cardisoma guanhumi* (Chace)**



***Gecarcinus lateralis* (Chace)**



***Gecarcinus ruricola* (Chace)**

## **Gecarcinus ruricola** *Black Crab*



### ***Description***

Dorsal surface of carapace rich purple with reddish overtones. Pair of pale bluish gray spots at the posterior end of the carapace. Bright red to orange spot beneath each eye. Eyestalks purple, cornea black. Large species, maximum carapace length 70 mm.

### ***Habitat***

*Gecarcinus ruricola* is a land crab that digs burrows one to two feet deep. It is caught by native Dominicans for food while wandering the roads at night.

### ***Location***

See under *Gecarcinus lateralis*.

### ***Personal Observations***

Two individuals were captured while visiting Batali Beach after dark. Both were found near the shoreline. The smaller individual was kept for photographing, while the larger one was released because she was carrying eggs. Many individuals were seen on the road after dark on the drive from Batali Beach to Springfield Station. The carapace's of dead crabs were seen in large numbers at both Rodney's Rock and Champagne Beach, but I was not able to visit there at night when the crabs are active.

### ***Distribution***

Southern Florida, West Indies, Nicaragua

## Gecarcinus lateralis

Touloulou



### *Description*

Carapace with a large central area of black with a pair of small cream or white spots at the posterior end. Outside of which is a fade of scarlet to orange. Eyestalks reddish purple with a black cornea. A medium sized crab, maximum carapace length at midline about 45 mm.

### *Habitat*

Gecarcinus lateralis is a land crab that constructs burrows one to two feet deep. It is used for food by native Dominicans.

### *Location*

Chace and Hobbs (1969) note that these crabs occur high up on the Cabrits and at elevations of approximately 1,000 feet south of Clark Hall. They get well up into Antrim Valley and occur in the area around Scotts Head. They also occur along the foot of the northern slope of Tarou Cliffs, immediately south of the mouth of the Layou River, the young crabs construct shallow burrows. Observed at five other locations on the island.

### *Personal Observations*

Found on the rock and cobble beach near Rodney's Rock. Numerous Gecarcinus lateralis dried carapace's were seen on the beach, but only one live crab was collected. This is probably due to the fact that collections were made during the day. The female crab was found hiding under the edge of rock. She was holding a large number of eggs (see above). She was docile and easily removed. They are also abundant at Champagne Beach. More active crabs were observed here, and they were more accessible than at Rodney's Rock. They will retreat to burrows if nearby, but may be trapped between large rocks. Also abundant at Batali Beach.

### *Distribution*

Bermudas and Southern Florida to French Guiana

# Cardisoma guanhumí

White Crab



## ***Description***

Larger representatives are nearly concolorous except stiff black hairs on the legs. May be pale blue, lavender, or gray. Very young crabs are uniformly tan, but soon develop a highly intricate pattern of tan, pink and blue spots on the carapace and bands and spots of white and tan on the pereopods (legs). Crabs of intermediate size may be pink or orange. A very large species, maximum carapace length 90 mm.

## ***Habitat***

Seldom wander more than a few feet from their burrows during the day. Wander further at night especially during the rainy season. Found in low-lying coastal areas.

## ***Location***

According to Chace and Hobbs (1969) hundreds of the pink or orange juveniles may be seen in the day in almost any low-lying coastal area near the mouths of their burrows. The adults are less frequently seen during the day but wander away from their burrows at night.

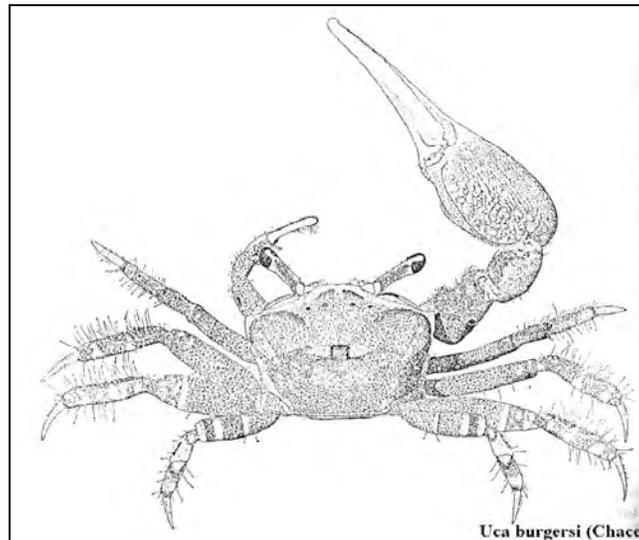
## ***Personal Observations***

Found at Batali Beach near the river in a large colony of at least 50 burrows. They emerge after dark. A very large individual was seen near the coast at about 8:00 pm. Their temperament seems to vary. I caught one that was very aggressive and one that was docile and easy to handle. The docile one was very large and appeared to be old. It was missing the typical hairs and part of a limb and was quite scarred.

## ***Distribution***

Bermudas, Southern Florida, and Texas to Estado de Sao Paulo, Brazil

## *Family Ocypodidae*



The Fiddler Crabs are so called because in the males one cheliped (usually the right) is much larger than the other. This large claw is carried horizontally, and is frequently waved, thus the comparison to a fiddle and a bow. The claws of the females are small and approximately equal in size. The carapace is more-or-less square, and the eyestalks are usually long (Headstrom). Fiddler crabs are light brown, mottled with purple and dark brown, which is a good camouflage in the dark sand of salt marshes and mud and sand flats (Headstrom). They congregate in large numbers and dig burrows above the tide line, usually far up estuaries and in the mouths of rivers. They may reside in brackish or freshwater. The burrows average one to two inches in diameter and one to two feet deep (Headstrom).

## Ocypode quadrata



### ***Description***

Carapace subrectangular, 9/10 as long as wide. Cornea markedly swollen. Has two color phases, on off white phase on light-colored sand, and a brown phase on black beaches. The light phase is almost concolorous and varies from bluish white to yellowish cream. The dark phase has a brown carapace with cream to pale tan stripes and spots.

### ***Habitat***

Confined to sandy beaches where they construct burrows.

### ***Location***

Observed by Chace and Hobbs (1969) at nine locations on the island. Including the Salisbury Rivers, Castle Bruce River at the mouth, Black Beach at the mouth of Mero River, and other more obscure locations.

### ***Personal Observations***

Caught on light-colored sand at Saint David's Bay about 10 feet from the shoreline. The individual was cream when caught but after spending the night in a brown cardboard box it changed to a dark brownish gray. To test the idea that it actually changed colors I placed it in a cardboard box lined with white paper. After 2 hours and 15 minutes all but the center of the carapace had changed back to the cream color (see above). Unfortunately, the crab died and I was unable to see the full color change or get a photograph of the live crab.

### ***Distribution***

Rhode Island to Estado de Santa Catarina, Brazil

## **Uca burgersi**

Fiddler Crab



Brachyura Gallery ([www.nhm.org](http://www.nhm.org))

### ***Description***

Carapace very roughly trapezoidal, almost hexagonal, slightly more than  $2/3$  as long as wide. Cornea moderately swollen, occupying about  $2/5$  of extensor surface of distal segment of eyestalk. Chelipeds greatly dissimilar and unequal in males, small and subequal in females. Carapace with front anterolateral borders of carapace cream tan. Eyestalks with brown longitudinal stripe dorsally, cornea black. A rather small species, maximum carapace length in midline about 15 mm.

### ***Habitat***

Found in mudflats in burrows, males with chimneys females without.

### ***Location***

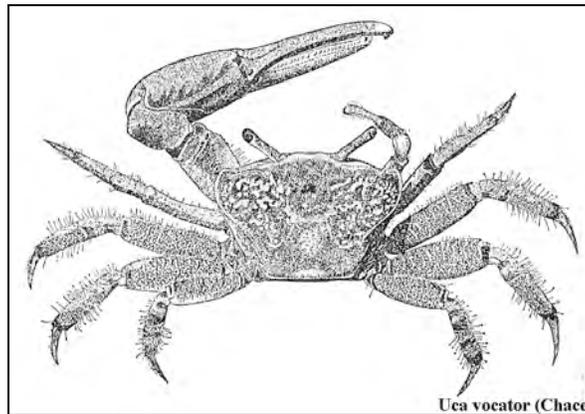
Found by Chace and Hobbs (1969) to be abundant in the large mudflat south of the Indian River at Portsmouth. This species along with *Uca vocator* can be numbered in the thousands.

### ***Distribution***

West Indies

## **Uca vocator**

Fiddler Crab



### ***Description***

Carapace subtrapezoidal, nearly 2/3 as long as wide. Cornea moderately swollen, occupying slightly less than 1/3 of the extensor surface of the distal segment of the eyestalk. Chelipeds greatly dissimilar and unequal in males, small and subequal in females. Carapace with anterior and upper lateral borders lavender cream; remainder mauve with pale lavender and darker purplish-brown areas. Eyestalks tan, cornea dark brown. A medium sized species, maximum carapace length in midline about 22 mm.

### ***Habitat***

Found in mudflats where it digs burrows.

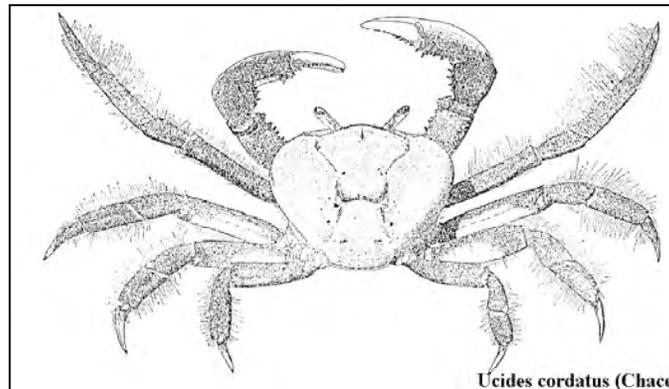
### ***Location***

Observed by Chace and Hobbs (1969) only at the large mudflat south of the Indian River at Portsmouth. Along with *Uca burgersi* can be numbered in the thousands at this location.

### ***Distribution***

British Honduras to Surinam

## Ucides cordatus



### ***Description***

Carapace transversely subelliptical, slightly less than  $\frac{4}{5}$  as long as wide. Cornea slightly swollen, occupying slightly less than half of extensor surface of the eyestalk. Chelipeds usually somewhat dissimilar and distinctly unequal in both sexes. Carapace mostly grayish blue. Eyestalks pale blue basally merging with more distal purple band; distal portion white below, cream above, with reddish-brown irregular longitudinal stripe. A large species, maximum carapace length in midline about 70 mm.

### ***Habitat***

Found in mudflats where it digs burrows.

### ***Location***

Chace and Hobbs (1969) observed this crab at two locations:

- In a low poorly drained area near the mouth of the Layou River among coconut trees and bananas.
- In the large mudflat just south of Portsmouth it occurs in large numbers.

### ***Distribution***

Southern Florida to Rio de Janeiro, Brazil.

## Works Cited

Bliss, Dorothy E. Shrimps, Lobsters and Crabs. Piscataway, New Jersey: New Century Publishers, 1982.

Chace, Fenner A. and Horton H. Hobbs. The Freshwater and Terrestrial Decapod Crustaceans of the West Indies with Special Reference to Dominica. Washington, D.C.: Smithsonian Institution Press, 1969.

Colin, Patrick L. Caribbean Reef Invertebrates and Plants. Neptune City, New Jersey: T.F.H. Publications, Inc., 1978.

Headstrom, Richard. Lobsters, Crabs, Shrimps, and Their Relatives. New York: A.S. Barnes and Co., Inc., 1979.

Ingle, Ray. Crayfishes, Lobsters and Crabs of Europe. London: Chapman and Hall, 1997

Jensen, Gregory C. Pacific Coast Crabs and Shrimps. Monterey California: Sea Challengers, 1995.

Sefton, Nancy and Steven K. Webster. Caribbean Reef Invertebrates. Monterey, California: Sea Challengers, 1986.