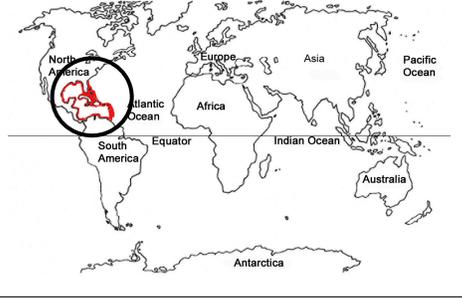


### Native Range Map



## Queen Angelfish

Kingdom: Animalia  
Phylum: Chordata  
Subphylum: Vertebrata  
Class: Actinopterygii  
Order: Perciformes  
Family: Pomacanthidae  
Genus: *Holocanthus*  
Species: *ciliaris*



Photo courtesy of Janet Wisneski

### Habitat

- **In the Wild:** The queen angelfish is found in the western Atlantic, ranging from Bermuda to Brazil and from Panama to the Windward Islands. They are most abundant throughout the Caribbean. They can be found from near-shore shallows down to the deepest portion of the reef (approximately 230 feet).
- **Exhibit Location:** USS Antiquities

### Characteristics

- The adult *Holocanthus ciliaris* has a length of between 8-18 inches and can weigh up to 56 ounces.
- The queen angelfish is one of the most beautiful reef fish in the ocean. The body is highly compressed and the head is blunt and rounded with a small protractile (protruding) mouth that contains slender brush-like teeth in a narrow band. One dorsal fin runs along the top of the body. Pectoral (chest), ventral (abdomen), and caudal (tail) fins are yellow. They are brilliantly colored in iridescent blue and yellow. It is very similar to the blue angelfish (*Holocanthus bermudensis*). The primary difference between the two is the dark ringed spot on the forehead of the queen angelfish that resembles a crown, hence the name. Although hybridizing between species of reef dwelling fishes is extremely rare, these two species have been known to occasionally interbreed creating a hybrid that shares color characteristics of both species. These hybrids are known as Townsend's angelfish.
- The appearance of the juvenile angelfish is quite different from the adult. They are dark blue with a yellow tail, a yellow area around the pectoral fin, and brilliant blue vertical bars on the body. They are similar in appearance to the blue angelfish; the only way to tell them apart is to note the curvature of the bars on the body. The queen juvenile has curved bars while the blue juvenile has straighter bars. As the queen juvenile grows larger, the color gradually changes from the dark blue of youth to the iridescent blues and yellows of adults.
- **Lifespan: In the Wild** 15 years; **In Captivity** Unknown

### Behaviors

- The queen angelfish is very shy, is sometimes curious, and is usually found in pairs. Males are very territorial. *Holocanthus ciliaris* are very thin; they can turn quickly and can maneuver down into narrow cracks between the corals to hunt their prey. They swim by rowing with their pectoral fins.
- The juveniles are solitary and vigorously territorial. They set up cleaning stations along the reef within their territory. These are areas where larger fishes allow a smaller creature to remove any parasites from its body. A sort of truce among predators and prey prevails at the stations. The large fish remains motionless and allows the smaller angelfish access to sensitive areas such as the gills. The juvenile angelfish, in turn, trusts the larger fish not to eat it.
- **Enrichments at the Zoo:** Various foods are offered.

### Reproduction

- Since the adults are found in pairs all year round, it is likely that this species shares a long-term monogamous bond. The pairs reproduce by rising up in the water, bringing their bellies close together, and releasing clouds of sperm and eggs. The female can release anywhere from 25-75 thousand eggs each time she mates and up to 10 million eggs during each spawning cycle. Fertilized eggs are transparent and float until they hatch 15 or 20 hours later into larvae. At this stage, the queen angelfish lacks eyes,

fins, and digestive organs. A large yolk sac is attached which is fully absorbed in 48 hours, while the larvae develop the physical characteristics that allow them to swim. After the yolk sac is absorbed, the larvae feed on plankton, growing rapidly for about a month until they reach about 20mm (0.76 inches) in length. At this stage they settle on the bottom of the reef near finger sponges and coral.

### **Diet**

- **In the Wild:** The adult queen angelfish feeds on a variety of marine invertebrates including sponges, tunicates, jellyfish and corals, as well as plankton and algae.
- **At the Zoo:** smelt, squid, vitamin gel, algae, various vegetables

### **Conservation Status**

- *Holocanthus ciliaris* are common and are not endangered.
- They are harvested commercially for the aquarium hobby rather than as a food source. Their value seems to stem directly from the beauty that they add to their surroundings.
- Predators: larger fish

### **Did You Know?/Fun Facts**

- The queen angelfish has never been bred in captivity.
- Cases of toxic poisoning have been reported from people eating this fish. The illness is serious and symptoms (gastrointestinal discomfort, general arm and leg weakness, and a reversal in being able to determine the difference between hot and cold) may last for several weeks.

### **Sources:**

- Florida Museum of Natural History, (n.d.). Ichthyology at the Florida Museum of Natural History. Retrieved Jul. 11, 2005, from Education-Biological Profiles Web site: <http://www.flmnh.ufl.edu/fish/Gallery/Descript/AngelQueen/AngelQueen.htm>.
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