

Lophogobius cyprinoides (Crested Goby)

Family: Gobiidae (Gobies)

Order: Perciformes (Perch and Allied Fish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Crested goby, *Lophogobius cyprinoides*.

[<http://biogeodb.stri.si.edu/sfstep/en/gallery/family/1987>, downloaded 24 January 2017]

TRAITS. *Lophogobius cyprinoides*, commonly known as the crested goby, is a small fish with stout body that appears somewhat compressed, with a crest extending back from the middle of the eyes (Figs 1 and 2). The oblique mouth is located in the front and usually does not reach the level of the front of the eye. They have six dorsal spines with the fourth spine being the longest, and 16-20 pectoral fin rays which reach beyond the anal fin origin in adults. The tail is round and about equal to the length of the head. Females appear pale with the upper head and body mottled with red-brown to olive-brown spots, the cheeks are covered with pale spots, also with several pale lines behind eye (Fig. 3). Males have more extensive darker mottling, with black and orange blotches on first dorsal fin and dark violet/black blotches when breeding (Fig. 2). Crested gobies grow to 11cm long.

DISTRUBUTION. *Lophogobius cyprinoides* is found in the western Atlantic Ocean, from Bermuda, south Florida in the U.S, the Bahamas and parts of Central and northern South America (Fig. 4). Sightings have also been recorded on the Pacific side of the Panama Canal.

HABITAT AND ACTIVITY. These fishes are known inhabit fresh to fully saline coastal waters. They reside mainly in shallow, quiet bays, in tidal creeks, estuaries mangroves and other calm parts of these waters. They inhabit water with salinity ranging from 0-39ppt. The major characteristic of their habitats are the mangrove, they are scarcely seen in tidal areas that are without mangroves. They utilize the mangrove and its roots as a hiding place and protection, they are known to dig small burrows usually around the sides of the mangrove or directly underneath the mangrove's roots.

FOOD AND FEEDING. *Lophogobius cyprinoides* are opportunistic feeders that have very diverse diets that consist of a variety of small marine plants and animals available in shallow waters near rocks. The largest part of their diet consists of algae found on the rocks and sea bed, with other parts including: crustaceans, amphipods, molluscs, barnacles, isopods, copepods, insects, ostracods and polychaetes.

REPRODUCTION. *Lophogobius cyprinoides* are protogynous hermaphrodites, meaning that these fish are born females and during their lifespan they change to males triggered by internal factors, with the exception of some that are born males and stay males, known as 'primary males'. When fertilization takes place their eggs are laid on the sea bed, secured on rocks to ensure they are not swept away by the currents. This type of practise is known as benthic spawning. They have low fecundity rates, meaning they do not lay a large amount of eggs each time they reproduce, but have a reproductive cycle that is not limited to a particular season, being active throughout the year. When eggs hatch the parental care of the larvae is minimal to non-existent, as the larvae are 'pelagic larvae', dispersed in the open sea.

APPLIED ECOLOGY. *Lophogobius cyprinoides* is listed on the IUCN red list as a species of Least Concern because no significant threats have been identified and the species is widespread in their respective mangrove environments. Some populations may be affected by the loss these mangrove environments but this is not seen as a threat to the entire population. This species is not utilised by humans and is characterised as harmless. No conservation measures have been established specific to the crested goby.

REFERENCES

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Fig. 2. Two male crested gobies hiding between rocks.

[<http://www.alamy.com/stock-photo-close-up-two-crested-goby-lophogobius-cyprinoides-riviera-maya-mayan-56085639.html>, downloaded 8 March 2017]



Fig. 3. A female crested goby.

[<http://www.alamy.com/stock-photo-a-rare-photo-of-a-female-crested-gobby-portrait-lophogobius-cyprinoides-54726828.html>, downloaded 8 March 2017]

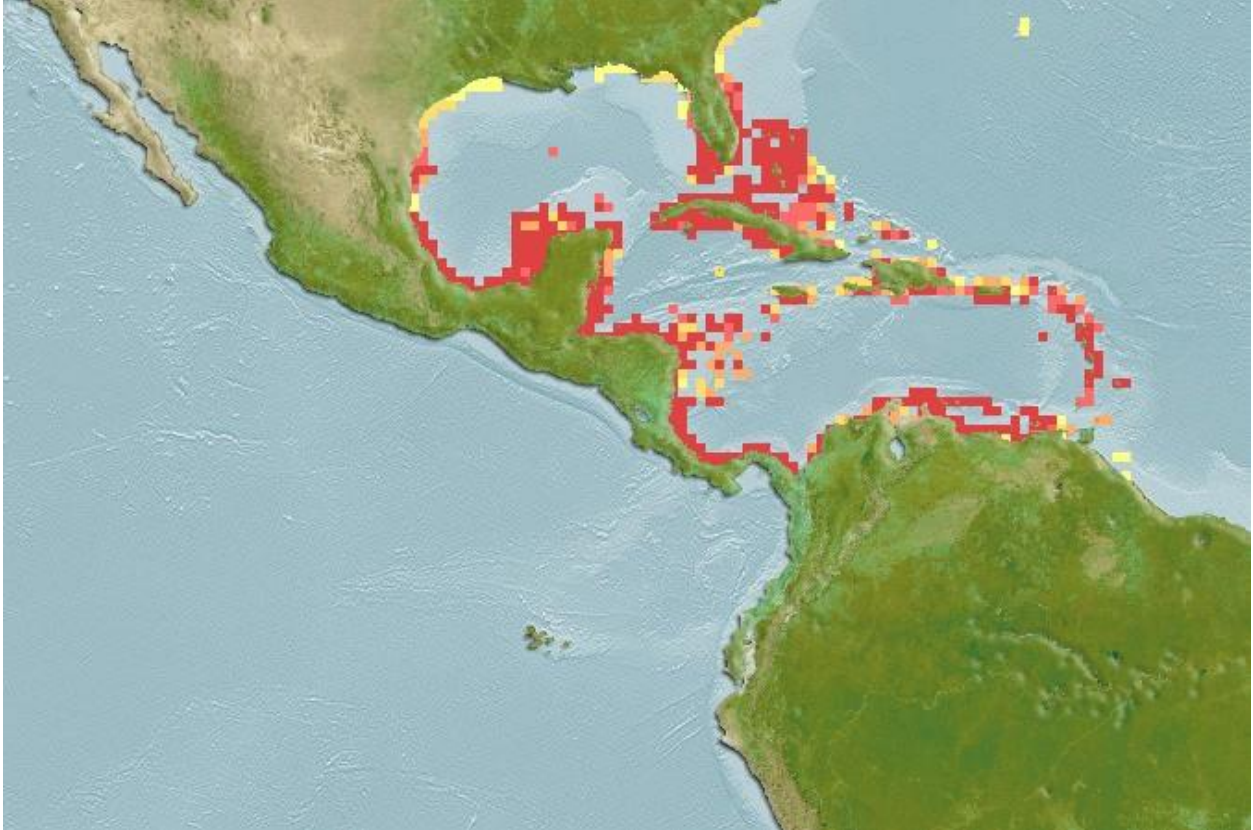


Fig. 4. Crested goby geographic distribution.

[http://www.aquamaps.org/receive.php?type_of_map=regular, downloaded 4 March 2017]

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