

Enchelycore carychroa (Caribbean Chestnut Moray)

Family: Muraenidae (Morays)

Order: Anguilliformes (True Eels and Morays)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Caribbean chestnut moray, *Enchelycore carychroa*.

[http://www.fishbase.org/images/HiRes_Pics/hr_Encar_u3.jpg, downloaded 28 February 2017]

TRAITS. *Enchelycore carychroa*, commonly referred to as the Caribbean chestnut moray or just chestnut moray, is the smallest member of the genus *Enchelycore*, reaching a maximum recorded length of 34cm (Robins and Ray, 1986) and is one of the smallest moray eels within its family Muraenidae. It is recognised by its uniform brown colour and its yellow iris. Its dorsal fin begins a little behind the gill opening, and its distinguishing feature is the white pores along its lower and upper jaws (Fig. 1) (Smithsonian Tropical Research Institute, 2015). *Enchelycore* species have arched jaws, and most of their sharply pointed teeth remain exposed while the mouth is closed (Böhlke and Böhlke, 1975). There is no sexual dimorphism in this species, and it is difficult to tell apart male and female chestnut morays.

DISTRIBUTION. Chestnut morays are widely distributed within the inshore of the western Atlantic, from Bermuda, Bahamas, southern Florida, and the Gulf of Mexico, throughout the Caribbean Sea and along South America to Brazil. It is considered a native species in Trinidad and Tobago. The species is also noted to have appeared on Ascension Island (Fig. 2) (Vega-Cendejas et al., 2015). In the eastern Atlantic there is one uncertain record from the Gulf of Guinea (Smith and Böhlke, 1990).

HABITAT AND ACTIVITY. Chestnut morays inhabit inshore rocky bottoms and can be found in and around coral reefs. They are considered a demersal species, and make their dens within the cracks and crevices (Fig. 3) at depths from 1-50m (Smithsonian Tropical Research Institute, 2015). No specific information on the activity of chestnut morays was found, but based on the wider moray family, it can be assumed that they are opportunistic nocturnal hunters with poor eyesight and good olfactory system, that wait for prey close to their dens and only leave their crevices to look for food at night (Randall, 1967).

FOOD AND FEEDING. Chestnut morays are a strictly carnivorous species and time spent not in their crevices is spent hunting for food, which includes bony fish, crustaceans like shrimps and crabs, and cephalopods like cuttlefish and squids (Smithsonian Tropical Research Institute, 2015). No specific feeding behaviour has been noted of this species but in the wider moray family, prey not consumed whole is eaten by a unique feeding behaviour called knotting (Fig. 4). This is where the moray strikes and holds on to the prey and makes a series of rotations. In the process of these movements it ties its body into a knot with the prey still in its mouth, and one final shake leaves the prey shredded or decapitated and the moray then consumes the carcass (Miller, 1989).

POPULATION ECOLOGY. The lifespan of the chestnut moray is currently unknown but some morays are known to live up to 30 years whilst in captivity. This species is considered common and very abundant in areas where they are known to dwell (Vega-Cendejas et al., 2015).

REPRODUCTION. Morays are oviparous, where fertilization takes place outside the body, resulting in a clutch of pelagic eggs (UnderwaterAsia, 2008) which float in the water with no protection by the parents. The eggs hatch into pelagic larvae (Smithsonian Tropical Research Institute, 2015) which stay in the upper layers of the ocean. They sink to the demersal (bottom) layer once they become juveniles.

APPLIED ECOLOGY. This species is classified as a species of Least Concern on the IUCN Red List of Threatened Species, due to there being no known major threats to the species and it is not utilized in any trade (Vega-Cendejas et al., 2015) As such, there are no specific conservation efforts.

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Fig. 2. Caribbean chestnut moray geographic distribution.

[<http://eol.org/pages/207204/maps>, downloaded 24 February 2017]



Fig. 3. Chestnut moray poking its head out of a crevice.

[<http://www.nhptv.org/wild/Muraenidae.asp#CaribbeanChestnutmoray>, downloaded 28 February 2017]

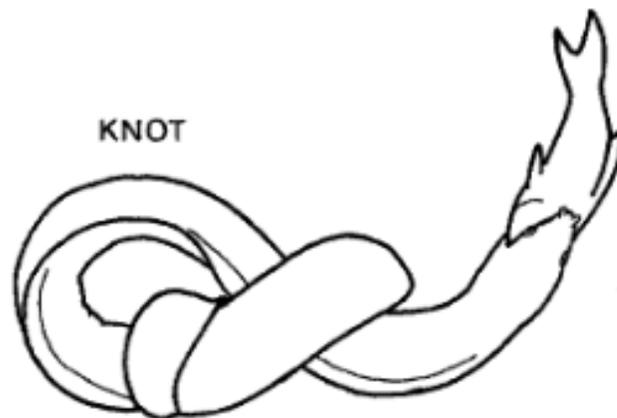


Fig. 4. Moray eel going into a knot whilst feeding.

[From Miller, 1989]