

Chilomycterus antillarum (Web Burrfish)

Family: Diodontidae (Porcupinefish)

Order: Tetraodontiformes (Pufferfish, Triggerfish and Boxfish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Web burrfish, *Chilomycterus antillarum*.

[<http://www.myconfinedspace.com/2011/04/27/awesome-fish/>, downloaded 11 February 2016]

TRAITS. The web burrfish is covered in short spines, some are located ventrally on its short body, with approximately 12 rigidly erect spines in rows from the dorsal fin to the front of the head (Fig. 1). A large black spot is present above the pectoral fin and a smaller black spot is present under the dorsal fin. The body pattern consists of a web or network of dark lines which separate pale, cell-like divisions. They can grow up to 30cm in size. They produce natural toxins and can expand their bodies two to three times its normal size as defensive measures. They have rubbery lips and teeth fused with the jaws to produce a beak capable of penetrating its prey shells (Lougher, 2006).

DISTRIBUTION. It is distributed in the western Atlantic Ocean from Florida along the coast of the United States, the Gulf of Mexico, the Bahamas, the entire Caribbean Sea and along the South American coast to Ceara in Brazil (Fig. 2). This fish is native to Trinidad and Tobago (Leis et al., 2002).

HABITAT AND ACTIVITY. Adults of this species are can be found to depths of approximately 25m. They are solitary and are found inhabiting sandy/soft bottoms. They also inhabit coral reefs which are in close proximity to rubble and seagrass areas (Fig. 3). They are nocturnal therefore most of their activity, which includes feeding, is done during the night.

FOOD AND FEEDING. Their diet mainly consists of molluscs along with other live prey. They can easily swallow small fish but for shellfish they crack open their shells using their beak. They are nocturnal such that their feeding patterns would take place during the night (Jordan and Rutter, 1896).

POPULATION ECOLOGY. Solitary and rarely found; near Turkey Point in Miami, Florida the total catch per unit effort (CPUE) is only 0.01. A French Guiana study stated that for this species there is an abundance index of 0.012-0.016 kg/h. Its current population trend is not known (Toller, 2007).

BEHAVIOUR. It swells up via the uptake of water which expands it two to three times its normal body size when threatened (Fig. 4). When this is done its spines are out and it becomes too large to be swallowed by most prey. It may not be safe from larger predators. In captivity, it is noticed that all puffer fish, including this species, have the ability to recognize their owners and a common behaviour pattern noticed is that they appear to beg for food in the presence of their owner. Web burrfish do not act aggressively toward other fish of the same species but fish of other species they will be aggressive towards them. This behaviour is well observed in captivity where, if placed with another fish, it will continuously attack it until the two are separated (Leis, 2007). There is a mutualistic relationship with bacteria living in the fish's intestinal tract. The bacteria get a home and produce a toxin known as tetrodotoxin which is found in various tissues and organs of the fish that assists it against predators (Yahyu, 1994).

APPLIED ECOLOGY. According to the IUCN this species of fish is listed as of least concern and is of no harm to humans (IUCN, 2015).

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Author: Ajay Maharaj

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Fig. 2. Web burrfish geographic distribution.

[http://www.aquamaps.org/receive.php?type_of_map=regular., downloaded 10 February 2016]



Fig. 3. Web burrfish in its habitat.

[http://homelygarden.com/en/fish_web_burrfish_760, downloaded 16 February 2016]



Fig. 4. Web burrfish defensive display.

[<http://www.coralreefphotos.com/web-burrfish-face-eden-beach-wannadive-bonaire/>, downloaded 16 February 2016]

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