

Lactophrys trigonus (Buffalo Trunkfish)

Family: Ostraciidae (Boxfish)

Order: Tetraodontiformes (Pufferfish, Triggerfish and Boxfish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Buffalo trunkfish, *Lactophrys trigonus*.

[<http://www.fishbase.org/photos/ThumbnailsSummary.php?ID=1107#>, downloaded 8 November 2016]

TRAITS. The trunkfish has a peculiar look compared to other fish. They are short and have triangular bodies protected by a carapace of hardened hexagonal bony plates. Due to this box-like body shape, its movement is also peculiar. The jaw, bases of fins and tail protrude from the carapace, making the movement different to that of most fish. The tail acts as a rudder whilst the dorsal and anal fins drive the fish with a rotatory motion (Columbia Encyclopaedia, 2016). The buffalo trunkfish can secrete a toxin if disturbed, fatal to other fish. It is usually green to brown with tiny white spots and two chain-like black markings, one located behind the pectoral fin and the other about midway along its body (Fig. 1) (Ibiologia, 2016). The maximum length recorded for this species was 50cm with the average length being around 30cm and a maximum recorded weight of 3.3kg (Marine Species Identification Portal, 2016). This fish has been known to change colour to blend into its background.

DISTRIBUTION. The buffalo trunkfish abounds in tropical waters, mainly distributed in the western Atlantic Ocean from the southern coasts of the U.S.A. to the southern coasts of Brazil. It exists in the Gulf of Mexico, Florida Keys Yucatan Peninsula, throughout the Caribbean Sea and along the South American coast to Brazil (Fig. 2) (IUCN, 2016).

HABITAT AND ECOLOGY. The buffalo trunkfish inhabits offshore reefs, seagrass beds and coral rubble reefs that are approximately 50m deep. Trunkfish are slow swimming diurnal predators that feed on a variety of small sessile (fixed) invertebrates, especially tunicates and sponges, and algae (IUCN, 2016).

BEHAVIOUR. The family is suspected to be protogynous hermaphrodites over its lifetime, changing sex from female to male. Sexual dichromatism, females and males having different colours, is common in the family. The species consists of harem-holding males defending a large territory with non-territorial females and subordinate males. These fish have been observed in groups as large as 23 (IUCN, 2016). Little is known about the offspring of the buffalo trunkfish (Fig. 3). Its general shape appears much flatter and circular than the elongated adult Fishbase, 2016). The only documented defence against predators for this species is the secretion of a toxin from the surface of their skins when they are stressed (Ibiologia, 2016).

APPLIED BIOLOGY. It is listed as of 'Least Concern' on the IUCN Red List and is not endangered (IUCN, 2016). This fish is a delicacy in some Caribbean islands, served baked in their shells. Due to its toxic surface, if not prepared right it can lead to food poisoning in humans. They can also hold ciguatoxins, accumulated from dinoflagellates (single-celled organisms) in the food chain, and toxic to humans (Wikipedia, 2016; Food Safety Watch, 2016). There are no known major threats to the buffalo trunkfish and therefore no specific conservation measures are currently applied (IUCN, 2016).

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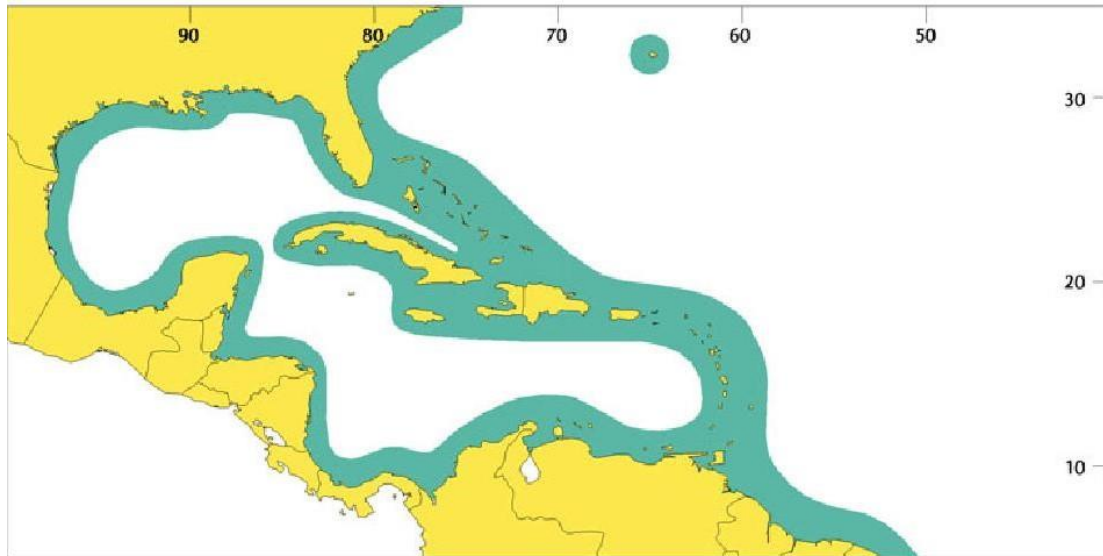


Fig. 2. Buffalo trunkfish geographic distribution.

[<http://www.ibiologia.unam.mx/links/peces/fao/WCAidSheets/Vol%203/y4162e69.pdf>, downloaded 25 October 2016]



Fig. 3. Juvenile buffalo trunkfish.

[<https://www.flickr.com/photos/mentalblock/7564310734>, downloaded 25 October 2016]