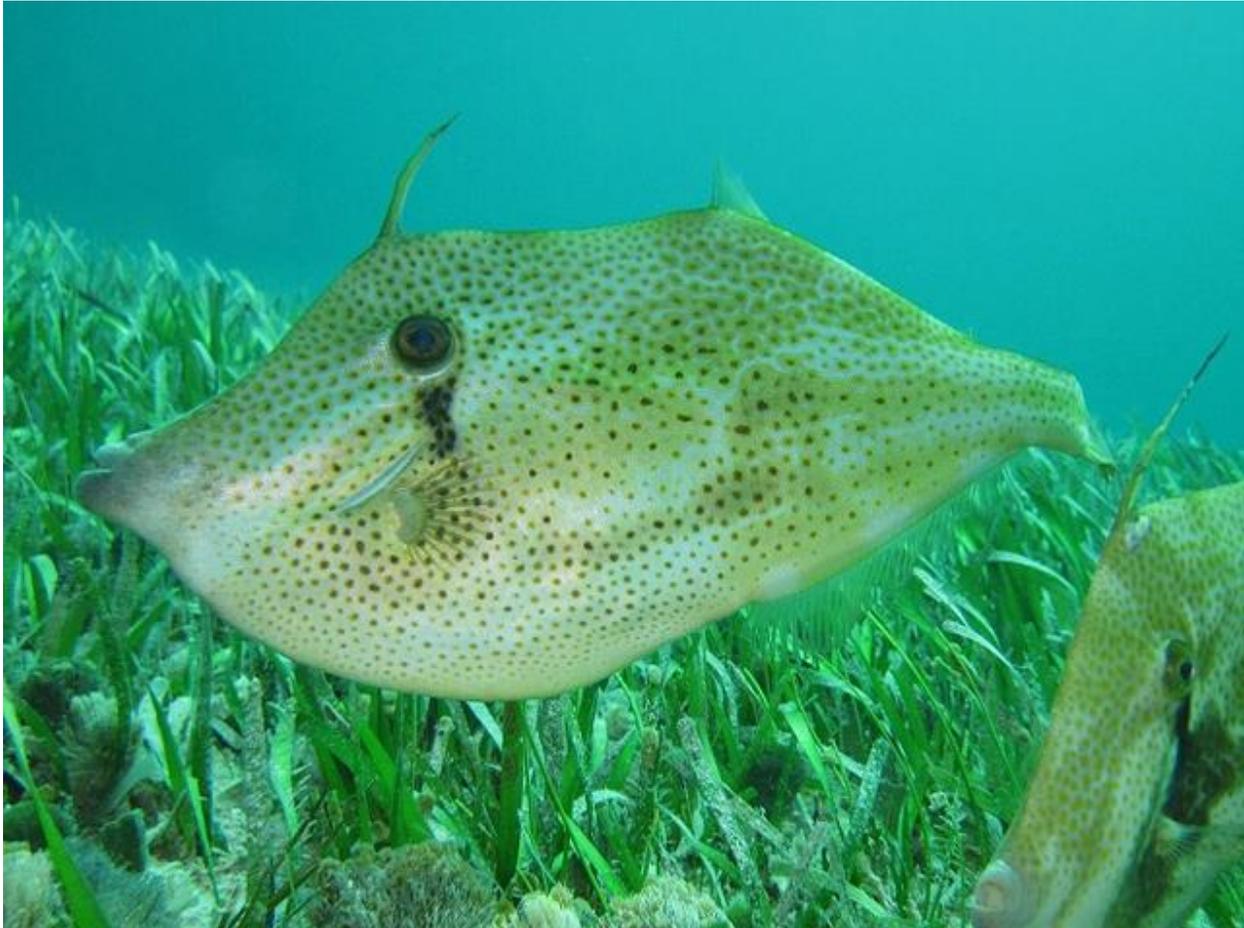


## *Aluterus schoepfii* (Orange Filefish)

Family: Monacanthidae (Filefish)

Order: Tetraodontiformes (Pufferfish, Triggerfish and Boxfish)

Class: Actinopterygii (Ray-finned Fish)



**Fig. 1.** Orange filefish, *Aluterus schoepfii*.

[<http://www.fishbase.org/Photos/PicturesSummary.php?ID=1081&what=species>, downloaded 29 September 2016]

**TRAITS.** *Aluterus schoepfii* is also known as the orange filefish or tobaccofish in the Caribbean. Generally a large species of filefish (Fig. 1), its maximum reported length for both males and females is 61cm, and its more commonly witnessed length is 40cm (IUCN, 2016). *Aluterus schoepfii* displays an array of colours ranging from olive grey, to pearl white to rich orange, with shiny gold-orange freckles or large irregular blotches (Fig. 2) (Florida Museum of Natural History, 2016). The skin is rough, with sandpaper-like texture. *Aluterus schoepfii* has a generally oval shaped flat body and a small, projecting mouth outlined in black. Two dorsal spines, 32-39 dorsal soft rays; no anal spines, 35-41 anal soft rays. Pelvic bone prolonged but does not project externally. The eyes of *Aluterus schoepfii* are found lower down the sides of the head and it has longer gill openings than other members of the genus *Monocanthus* (Fishbase,

2016; Florida Museum of Natural History, 2016). Juveniles are pelagic, snout shorter than adults, and associate with floating sargassum (Richards, 2005).

**DISTRIBUTION.** Extremely common and widely distributed across the Atlantic Ocean where there are shallow, soft bottoms with seagrass. In the western Atlantic Ocean it is known from Canada, to the United States, the Gulf of Mexico, and Caribbean Sea and to Brazil. In the eastern Atlantic Ocean it ranges from Cape Blanc and Mauritania to Angola (Fig. 3) (IUCN, 2016). The Orange filefish is native to Trinidad and Tobago.

**HABITAT AND ECOLOGY.** *Aluterus schoepfii* inhabits a marine habitat and can also be part of a marine reef biome. Most commonly observed over seagrass, mud and sand bottoms to a depth range of about 900m but is usually found over the continental shelf. Adults can be either solitary or in pairs, drifting with their head pointing downwards and floating among the seagrass to camouflage from both predators and prey. *Aluterus schoepfii* feeds on a variety of marine vegetation including the algae *Acanthophora spicifera*, *Caulerpa racemosa* and *Asterocytis ramosa* (Florida Museum of Natural History, 2016; Encyclopedia of Life, 2016). The adults are usually more active in the day and less at night and are classified as diurnal. Most of the time spent at bottom sites are camouflaging from predators and feeding on marine vegetation.

**REPRODUCTION.** *Aluterus schoepfii* breed in groups usually consisting of one male and two to five females. Spawn sites are prepared by the male, located in safe areas away from sight from predators, such as a depression in the sand (Florida Museum of Natural History, 2016). The females lay eggs in these safe spawn sites which are fertilized by the male and guarded by either the male or the female. The eggs are bright green and adhesive; they stick together at a bottom and brood usually consists of about 300 eggs (Richards, 2005). The juvenile filefish are pelagic, and seek out floating sargassum for protection from predators such as tuna and dolphinfish (Florida Museum of Natural History, 2016). Male and female show no external signs of sexual differences, they display no sexual dimorphism.

**BEHAVIOUR.** *Aluterus schoepfii* is diurnal and either solitary or in pairs. Due to the small pectoral fins, *Aluterus schoepfii* are poor swimmers and generally sluggish, drifting with ocean currents with their head downwards facing the seagrass to camouflage from predators. However, adult males and females can be hostile when other fish or organisms that approach too closely to their offspring at their spawn points and will attack any intruders (Florida Museum of Natural History, 2016).

Antipredator behaviour (Fig. 4): Like most other species of filefish, when threatened *Aluterus schoepfii* seek protection of crevices. Unlike some other species of filefish, their pelvic bone is not projectable externally; therefore they rely strictly on hiding. *Aluterus schoepfii* utilizes the two dorsal spines and its pelvic bone to lock itself into a crevice for protection. The large spine is locked into place by the smaller spine located behind it and the pelvic bone is also extended internally to further lock the fish into place in the crevice (Florida Museum of Natural History, 2016).

**APPLIED BIOLOGY.** *Aluterus schoepfii* is generally considered as a trash fish and is rarely consumed. Consumes marine and reef vegetation (algae) and may be unsafe to coral reefs in large populations. Caution should be taken if the flesh of the fish is to be eaten as there have

been cases of ciguatera poisoning. The species is often displayed in aquariums and traded as an aquarium fish in Ceará, Brazil (IUCN, 2016). Classified as Least Concern on the IUCN Red List as it is not endangered, and no known major threats are likely to affect global population.

#### REFERENCES

- IUCN (2016). *Aluterus schoepfii*. IUCN Red List. <http://www.iucnredlist.org/details/summary/16404974/0>, downloaded 28 October 2016.
- Florida Museum of Natural History (2016). *Aluterus schoepfii*. <https://www.flmnh.ufl.edu/fish/discover/species-profiles/aluterus-schoepfii/>, downloaded 28 October 2016.
- Encyclopedia of Life. (2016). *Aluterus schoepfii*. <http://www.eol.org/pages/204076/overview>, downloaded 28 October 2016.
- Richards, William J. (2005). Early Stages of Atlantic Fishes. Florida: Taylor and Francis Group.

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**Fig. 2.** Variation in colour of orange filefish.

[<https://www.flmnh.ufl.edu/files/2714/0924/8135/Aluterus-schoepfii-03.JPG>, downloaded 28 October 2016]



**Fig. 3.** Orange filefish geographic distribution.

[<https://www.flmnh.ufl.edu/files/3714/0924/8135/Aluterus-schoepfii-map.JPG>, downloaded 28 October 2016]



**Fig. 4.** Inshore lizardfish consuming orange filefish.

[<https://www.flmnh.ufl.edu/files/4714/0924/8136/Aluterus-schoepfii-pred.JPG>, downloaded 28 October 2016]