

Aluterus scriptus (Scrawled Filefish)

Family: Monacanthidae (Filefish)

Order: Tetraodontiformes (Pufferfish, Triggerfish and Boxfish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Scrawled filefish, *Aluterus scriptus*.

[http://media.eol.org/content/2009/05/21/17/93683_orig.jpg, downloaded 21 February 2016]

TRAITS. This is a medium size fish (Wikipedia, 2015) that has a very compressed body which is elongated and oval (Fig. 1). The length of the scrawled fish is 55-110cm (Florida Museum of Natural History, 2016). The fish has no pelvic fin but contains two types of dorsal spines. The first dorsal spine is located just above the eyes and is long, slim and is found in an erect position. The second dorsal spine helps the first spine to maintain the erect position (Wikipedia, 2015). The pointed snout is shorter than the tail fin. The scales are tiny and numerous, and the skin texture is quite rough, like sand paper, but there are no scales by the genital area (Encyclopedia of Life, 2016). Colour: the adult is olive-brown to pale grey with blue spots and lines that are unevenly distributed throughout the body (Fig. 1). The juvenile *Aluterus scriptus* is yellow with unevenly distributed blue spots and lines (Fig. 2) (Answers in Genesis, 2016).

DISTRIBUTION. The distribution of *Aluterus scriptus* is worldwide in tropical and sub-tropical seas. In the western Atlantic it ranges from Nova Scotia (Canada) to the Gulf Mexico and south to

Brazil. It is also found in the eastern Atlantic in Ascension Islands, St. Paul's Rocks, São Tomé Island and South Africa. *Aluterus scriptus* is also located in the Pacific Ocean, from Japan to the Great Barrier Reef, and is widespread in the western Pacific (Fig. 3) (FishBase, 2016).

HABITAT AND ACTIVITY. Found in habitats that may include lagoons and reefs (Fig. 4). These fish can be located in tropical and sub-tropical waters with depths ranging from 3-120m but are usually seen at water depths that vary from 3-20m (Izzo et al., 2010). Juvenile fish may travel with seaweed in the open ocean. The juvenile fish swim in a vertical position with their heads facing downwards in a floating raft of seaweed, this is done to avoid becoming prey for predators. They also are found in the crevices of reefs mainly during night time, also to protect themselves from predators by jamming into the reef crevice and using the dorsal spine located on the head which is locked in place by another spine (Florida Museum of Natural History, 2016).

FOOD AND FEEDING. *Aluterus scriptus* feeds constantly with small meals, the juveniles' metabolic rate is higher than that of the adults therefore the younger fish require more food. *Aluterus scriptus* is an omnivore with a large variety of food such as seagrass, algae, anemones and hydrozoans (Florida Museum of Natural History, 2016).

POPULATION ECOLOGY. Solitary except during the mating season when a group of fish with 1 male and a maximum of 5 females will move around with each other, in a territory where they lay eggs (Florida Museum of Natural History, 2016).

REPRODUCTION. These fish breed in groups of 1 male and 2-5 females. The females lay their eggs which are demersal (on the bottom of the sea). These eggs can be found in relatively safe areas such as hollows in the sand. The eggs that are fertilized will be protected by the male or female whereby upon close approach the male and female fish will attack and when the eggs hatch the female fish will take care of the young (Florida Museum of Natural History, 2016).

BEHAVIOUR. Antipredator behaviour: *Aluterus scriptus* shows several behavioural patterns whereby they protect themselves from predators. When they swim around floating weeds their heads will be facing downward as a type of camouflage. Another type of antipredator behaviour is that when a predator comes close they may wedge themselves into the reef and allow their dorsal spine to be pointed in an upward position (Florida Museum of Natural History, 2016). *Aluterus scriptus* also shows diurnal activity whereby it performs most of its functions during the day and sleeps at night. They are also demersal which means that they live and feed near the sea floor (Wikipedia, 2015).

APPLIED ECOLOGY. *Aluterus scriptus* is not listed as being under any conservation threat.

REFERENCES

- Answers in Genesis. 2016. Scrawled Filefish. <https://answersingenesis.org/kids/fish/scrawled-filefish/> .Downloaded March 3, 2016.
- Encyclopaedia of Life.2016. Scrawled Filefish - *Aluterus scriptus* - <http://eol.org/pages/205063/overview>.
Downloaded March 7, 2016.
- Fish Base. 2016. *Aluterus scriptus* summary page. <http://fishbase.sinica.edu.tw/summary/Aluterus-scriptus.html> .
Downloaded March 5, 2016.

Florida Museum of Natural History. 2016. *Aluterus scriptus*. <https://www.flmnh.ufl.edu/fish/discover/species-profiles/aluterus-scriptus/> . Downloaded March 7, 2016.

Izzo P, Milessi A, Ortega L, Segura. 2010. A First record of *Aluterus scriptus* (Monacanthidae) in Mar del Plata, Argentina. *Mar Biodivers.* 1:1-3

Wikipedia. 2015. *Aluterus scriptus*. https://en.wikipedia.org/wiki/Aluterus_scriptus . Downloaded March 7, 2016.

Author: Lynn-Marie Ramai

Posted online: 2016



Fig. 2. A juvenile *Aluterus scriptus*.

[<https://answersingenesis.org/kids/fish/scrawled-filefish/>, downloaded 21 February 2016]



Fig. 3. Scrawled filefish geographic distribution.

[http://www.aquamaps.org/receive.php?type_of_map=regular downloaded 3 March 2016]



Fig. 4. *Aluterus scriptus* found in seaward reef habitat.

[[https://commons.wikimedia.org/wiki/File:Scribbled_Leatherjacket_Filefish_\(Aluterus_scriptus\)_6059277332.jpg](https://commons.wikimedia.org/wiki/File:Scribbled_Leatherjacket_Filefish_(Aluterus_scriptus)_6059277332.jpg) downloaded 3 March 2016]

For educational use only - copyright of images remains with original source