

Atherinomorus stipes (Hardhead Silverside)

Family: Atherinidae (Silversides)

Order: Atheriniformes (Silversides)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Hardhead silverside, *Atherinomorus stipes*.

[<http://www.marinelifephotography.com/fishes/mullets/atherinomorus-stipes.htm>, downloaded 8 October 2016]

TRAITS. *Atherinomorus stipes* is a small slender fish with cycloid (rounded) scales, measuring 10cm in length for both males and females. The dorsal surface is a translucent green, with a prominent silver stripe along the lateral line (Fig. 1). The mouth is oblique, with small teeth which are present on both jaws. The eyes are very large and the head is wider than the body. There are two dorsal fins (Fig. 2), the first having 4-5 spines and the second a single anterior spine; a pelvic fin with a single spine with 5 soft rays; an anal fin which has a single anterior spine; and a forked caudal fin. In adults, the tip of the caudal fin is black. Some common names for *Atherinomorus stipes* are hardhead silverside, broadhead silverside, and bristle herring.

DISTRIBUTION. *Atherinomorus stipes* is normally seen swimming in shallow areas of the western Atlantic Ocean (Fig. 3), mainly in the waters from Bermuda and the southern portion of Florida to Brazil (IUCN, 2016).

HABITAT AND ECOLOGY. Found in areas of equatorial climate. They remain in shallow areas, mainly waters which are under 10m deep, and they are mainly seen swimming in large schools ranging in the thousands (Fig.4). Found in seagrass meadows, patch reefs and fringing reefs, they tend to remain close to the surface. *Atherinomorus stipes* is referred to as being omnivorous as they feed on zooplankton, pelagic fish larvae and pelagic fish eggs and they do so during the day.

REPRODUCTION. It is oviparous and the eggs released by the female are sticky. This stickiness allows the eggs to attach to seaweed found in shallow areas, which are then fertilized by the males.

Eggs are released by the female many times throughout the year. *Atherinomorus stipes* has a pelagic larva, which is very mobile. The adult fish do not take care of their young, therefore the larvae are left to fend for themselves. Eggs are usually released at night, between midnight and daybreak.

BEHAVIOUR. During the day, *Atherinomorus stipes* can be found in large schools consisting of thousands whilst at night, they become more isolated with their nocturnal abundance being reduced significantly. These large schools can also comprise of some other species of fish such as anchovies and dwarf herrings. Feeds mainly during the day. Although they are found in large numbers, *Atherinomorus stipes* has no known defence mechanism against predators or human threats. Many species that are found in shallow-water environments feed on *Atherinomorus stipes*, including needlefish, barracudas, snappers, jacks and snooks.

APPLIED BIOLOGY. *Atherinomorus stipes* can be beneficial to humans because they are used as bait by fishermen, however there is no economic importance that is associated with this species. It is not considered an endangered species since it is listed as of Least Concern on the IUCN Red List (IUCN, 2016). This species' habitat (coral reefs), however are threatened in many ways such as coral bleaching, coral disease, overfishing and water pollution. If no preventative measures are taken to protect the coral reefs and they continually disintegrate, this species can be seriously affected.

REFERENCES

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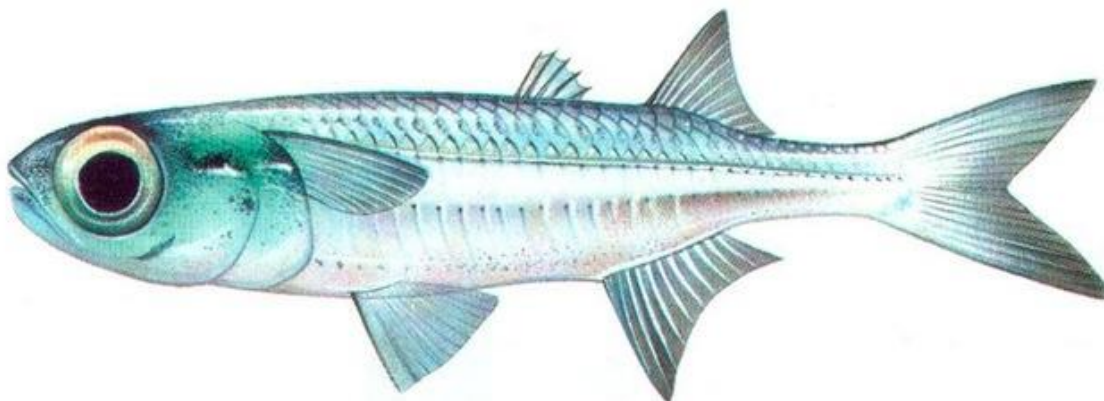


Fig. 2. Showing colours and dorsal, anal, pelvic and caudal fins.

[<http://what-when-how.com/fishes-images/atheriniform-fishes-3/>, downloaded 8 October 2016]



Fig. 3. *Atherinomorus stipes* geographic distribution.

[<http://maps.iucnredlist.org/map.html?id=155310>, downloaded 8 October 2016]



Fig. 4. School of thousands of hardhead silversides.

[<http://www.shutterstock.com/video/clip-14286880-stock-footage-school-of-fish-atherina.html>, downloaded 17 November 2016]