

Ablennes hians (Flat Needlefish)

Family: Belonidae (Needlefish)

Order: Beloniformes (Flyingfish and Needlefish)

Class: Actinopterygii (Ray-finned Fish)

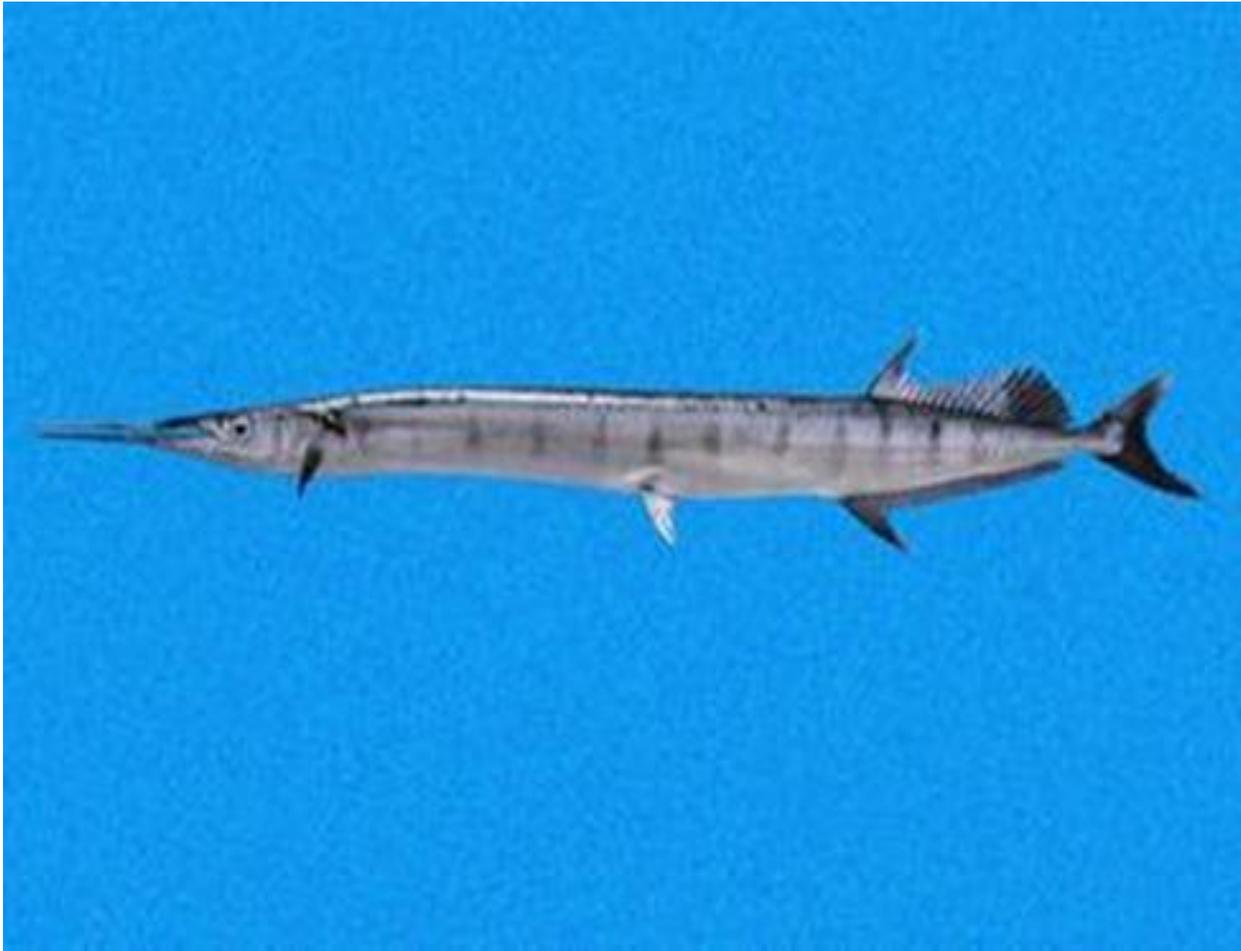


Fig. 1. Flat Needlefish, *Ablennes hians*.

[<http://www.discoverlife.org/mp/20q?search=Belonidae>, downloaded 16 February 2015]

TRAITS. The flat needlefish is also known as the barred needlefish and the giant needlefish, and is the only species in the genus *Ablennes*. Flat needlefish have elongated bodies, long upper and lower jaws forming a beak with small, sharp, needle like teeth, and yellow eyes. They have around 23-26 soft dorsal fin rays, 24-28 anal fin rays and a lower lobe that is longer than the upper one. They are blue-green in colour above, and silvery white below. Flat needlefish have a lateral line running from the pectoral fin to the end of the body, and dark blotches on the posterior part of their dorsal fins, with 12-14 vertical bars in the middle of the body (Allen, 2000). They have small, smooth scales, 86-93 vertebrae, and can reach approximately 5kg and 120cm in length. Needlefish have an arrow-like body and are named because of their elongate jaws and body (Fig. 1).

DISTRIBUTION. Flat needlefish are a type of marine fish and are distributed worldwide in tropical and warm temperate waters. They can be found ranging in the western Atlantic from the northern Gulf of Mexico to Brazil, in the eastern Atlantic from Dakar to Angola, the western Pacific from Japan to the East Indies and Australia, and the eastern Pacific from Mexico to Peru (DiscoverLife, 2015). They occur in tropical and subtropical areas from 38°N-37°S, including the entire Caribbean region (Fig. 2).

HABITAT AND ACTIVITY. Flat needlefish inhabit neritic (coastal) and oceanic waters and are found near islands, estuaries, and coastal rivers. They live in saline, brackish waters both inshore and offshore and can be on the water surface or in the water column only. Also at low tides they can be seen on some reef flats at night and during the day larger ones are seen at jetties. They prefer warm coastal waters and can thrive in a large range of salinities. Young needlefish around 5cm are found in summer in seagrass beds along marsh margins from the bay mouth to the river. Needlefish inhabit open sea around small islands and they are seen on the surface of bays and coves when warmer seasons arrive (Collette, 2002).

FOOD AND FEEDING. Flat needlefish are carnivorous (meaning that they eat meat) and feed on small fish which they can catch sideways in their beaks (Fig. 3) and then turn and swallow head first. They hunt small surface-dwelling fish and in turn are hunted by larger fish and dolphins (Murdy and Musick, 2002).

POPULATION ECOLOGY. They gather in large schools in which they travel so would have a better change at survival and younger fishes sometimes enter bays and inlets. The maximum age of needlefishes is unknown and lifespan and growth varies with food availability and environmental factors such as temperature, salinity and dissolved oxygen in water conditions. They live in social groups in the wild and migrate within oceans between spawning to find different feeding areas (DiscoverLife, 2015).

REPRODUCTION. Needlefish are oviparous meaning that they lay eggs which can be found attached to objects in the water or floating debris by filaments on the egg surface. Only the left gonad is developed in both sexes and in males, the right gonad is small or absent. Their eggs have entangling tendrils to cling on to objects and juveniles shelter in mangroves moving out to deeper water when they mature (Murdy and Musick, 2002). Jaws are shorter in younger needlefish as they develop with age. Spawning occurs in all seasons but mostly in summer and spring due to increased water temperature, and more than one batch of eggs is produced during the spawning season (Jeffery and William, 2003).

BEHAVIOUR. Needlefish are darker coloured from above and silvery from below to camouflage its self from predators above and below. They employ counter shading to lower predation with blue to green colouration to allow the fish to blend in with its surroundings. Needlefish are not aggressive but are greedy predators and gorge one day then hardly eat on the next day. The vertical bars and posterior, pigmented dorsal fin lobe are retained in juveniles (Murdy and Musick, 2002).

APPLIED ECOLOGY. This species of needlefish are not on any conservation status since it is not evaluated or listed under any IUCN or other protection. Needlefishes are considered game fish being caught using artificial lights, trammel nets, casting and trolling at the surface.

However, there is not a high standard market because of its green-coloured flesh but some people in other parts of the world find them popular food fish (Allen, 2000).

REFERENCES

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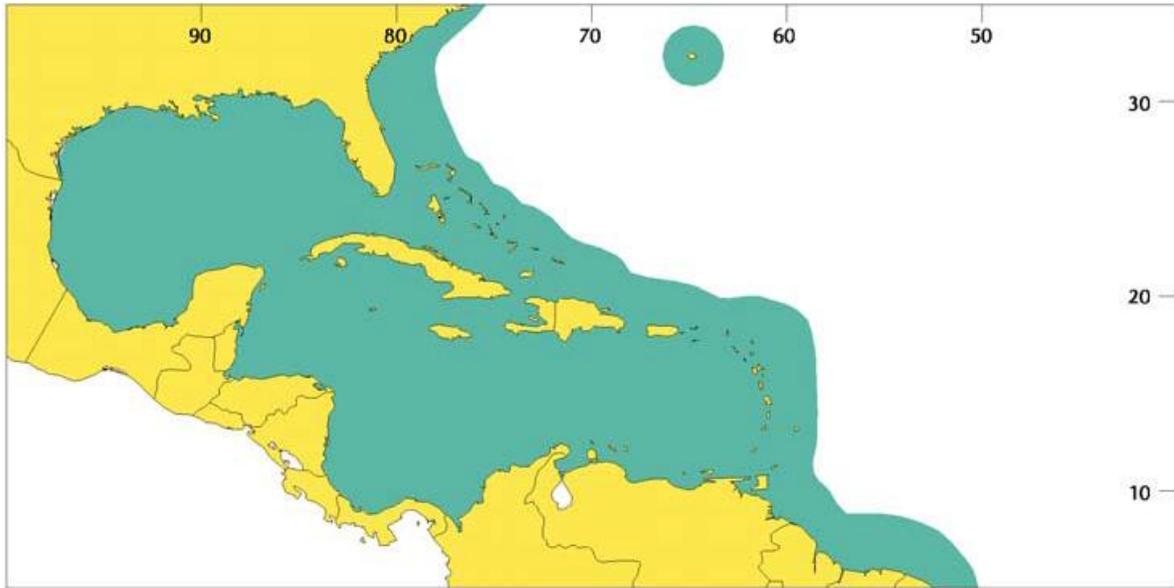


Fig. 2. The distribution of *Albennes hians* in the Caribbean.

[<https://www.google.tt/#q=what+are+albennes+hians>, downloaded 22 February 2015]



Fig. 3. The flat needlefish's beak and sharp teeth.

[<http://www.mexfish.com/mexico/flat-needlefish>, downloaded 10 March 2015]