

## *Cheilopogon melanurus* (Atlantic Flyingfish)

Family: Exocoetidae (Flyingfish)

Order: Beloniformes (Flyingfish and Halfbeaks)

Class: Actinopterygii (Ray-finned Fish)



**Fig. 1.** Atlantic flyingfish, *Cheilopogon melanurus*.

[[http://www.discover-tt.net/marinas/marine\\_wildlife\\_tobago/cheilopogon\\_melanurus](http://www.discover-tt.net/marinas/marine_wildlife_tobago/cheilopogon_melanurus), downloaded 23 March 2015]

**TRAITS.** The Atlantic flyingfish has an elongated, torpedo shaped cylindrical body. They grow approximately 25cm in length with a maximum length being 32cm. Its head is 3.9-4.6cm long. The lower jaw is slightly longer than the upper jaw and these contain conical teeth and not palatine teeth. It has extremely large long pectoral fins which are used to glide above waters, pelvic fins which provides stability in the air, dorsal fins, anal fins and caudal fins which the lower lobe is longer than the top. The pectoral fin is 14cm-16cm long, the pelvic fin is 2.5cm-3.5cm long, reaching past the origin of the anal fin. The dorsal fin is low with the anal fin behind. The Atlantic flyingfish is fully scaled and has a low lateral line. It is iridescent blue dorsally and silver or white ventrally (Whiteman, 2000). The pectoral fin is transparent with pale triangular cross band, the pelvic fin is transparent, the dorsal fin is grey the caudal fin is grey and the anal fin is transparent. Juveniles are 15-10 cm in length and have six bands on their body and dark spots on their fins. They project paired barbels outwards from their chin, which is 50-150 mm long. As the fish matures the barbels are lost when it is 11-17cm long.

**DISTRIBUTION.** The Atlantic flyingfish has a widespread distribution in the pelagic zone (open seas) to the neritic zone (coastal areas). They can be found in the Caribbean Sea, the Antilles, the coast of Canada and the western Atlantic from the Gulf Stream of Massachusetts to Brazil (Wikipedia, 2014).

**HABITAT AND ACTIVITY.** The Atlantic flyingfish is found in subtropical water as they prefer medium temperature waters. These fishes are found in the waters close to the shores, and like ocean water in which they are found in the Gulf Stream. Juvenile fishes are mostly found in harbour or bays. This flyingfish developed a defence mechanism by containing the ability to jump above waters and glide in the air. This is a way of survival from being eaten by other organisms such as dolphins, tuna and swordfish.

**FOOD AND FEEDING.** Atlantic flyingfishes are carnivores in which they usually consume on small crustaceans, smaller fishes and zooplankton. It acquires its food at the surface of the water and mostly at night.

**POPULATION ECOLOGY.** *Cheilopogon melanurus* are not solitary; these fish are found in schools in which they hunt for their food and when they are spawning. They are sometimes found in pairs while spawning. Fishermen appreciate that these fish are not solitary because they can capture a lot for the market and make a bigger income. Migration occurs between oceans during spawning and feeding areas. These fish have a lifespan approximately 5 years.

**REPRODUCTION.** Spawning behaviour was observed in large schools and this occurred when the currents of the water is low. The time period is thought to be between in June and July. It was observed that there was a unique colour in the male and female fishes. The male fish circled the female fish coming into contact with the female fish every two seconds as seen in Fig. 2. The female flying fish lays eggs in the same area where the adults occupy. The eggs are demersal (sink), spherical with the diameter being between 0.30-2.2 mm. They lay their eggs in a bed of seaweed in the water which is called sargassum clumps. The eggs contain many white tiny string-like materials on the surface which catches and wraps itself around the sargassum. The eggs are held in this position and often sink until they are ready to hatch due to the increased weight of the egg. The female does not tend her eggs – the young flyingfish are on their own (Casazza et al., 2003).

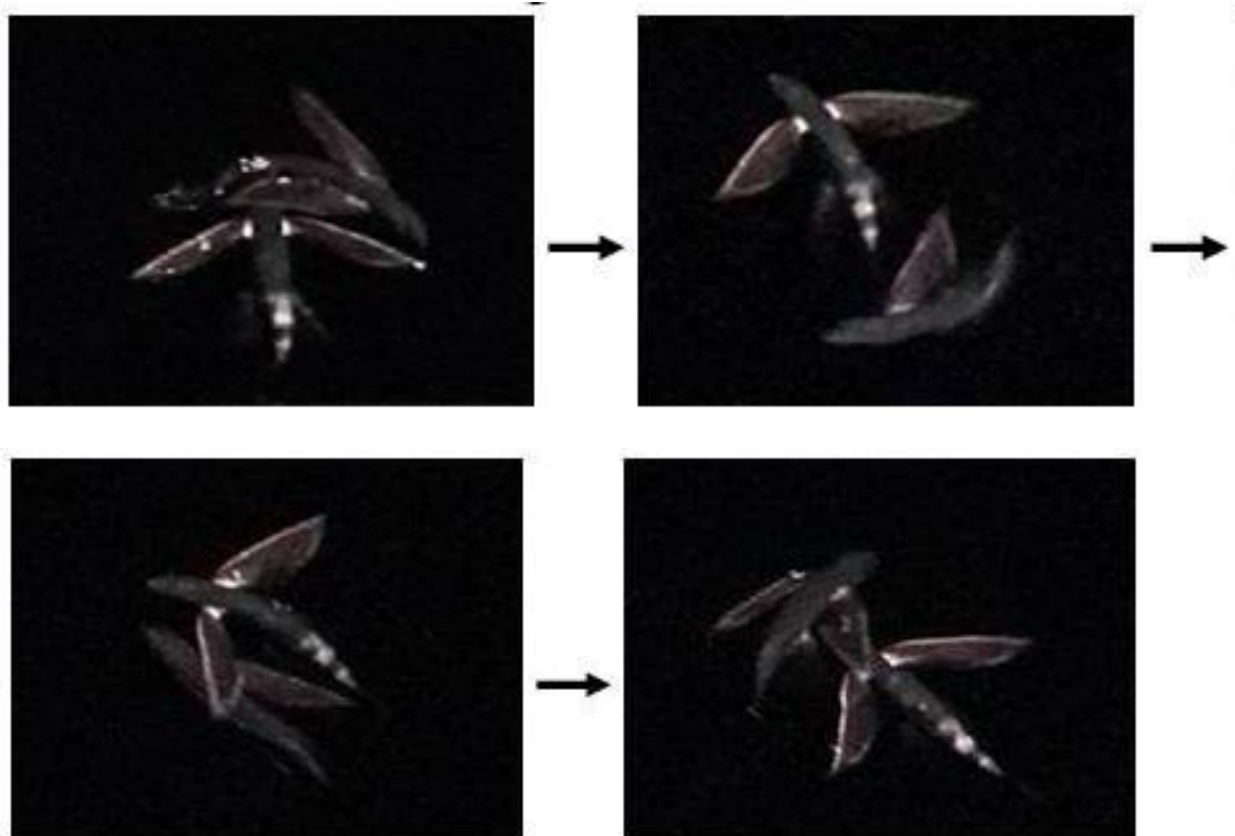
**BEHAVIOUR.** They contain an anti-predator behaviour. When *Cheilopogon melanurus* is under threat such as predators, they use a defence mechanism to escape. They swim at top speed about 30km/h, jumps above the water in which they extend and stiffens their pectoral fins to accumulate air currents for gliding. They remain airborne approximately 30 seconds and can glide as short as 3m to far as 12m. They can have successive flights one after the other by departing back into the water with the tail first as seen in Fig. 3. This allows the fish to launch back into the air as the caudal fin vibrates rapidly approximately 50 times per second to gain speed for flight. At the end of flight, they close their pectoral fin and drop back into the waters (Thomas, 2010). This mechanism is a way to escape predators but there is a risk of being consumed by airborne predators such as birds.

**REFERENCES**

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Author: Faood Rahaman

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**Fig. 2.** Spawning behaviour of Atlantic flyingfish (male circling female).

[[http://fl.biology.usgs.gov/posters/Coastal\\_Ecology/Cheilopogon\\_melanurus/cheilopogon\\_melanurus.html](http://fl.biology.usgs.gov/posters/Coastal_Ecology/Cheilopogon_melanurus/cheilopogon_melanurus.html), downloaded 28 March]



**Fig. 3.** Atlantic flyingfish relaunching.

[[http://en.wikipedia.org/wiki/File:Cheilopogon\\_melanurus](http://en.wikipedia.org/wiki/File:Cheilopogon_melanurus), downloaded 28 March]

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