

## *Myrichthys ocellatus* (Goldspotted Snake Eel)

Family: Ophichthidae (Snake Eels)

Order: Anguilliformes (True Eels and Morays)

Class: Actinopterygii (Ray-finned Fish)



**Fig.1.** Goldspotted snake eel, *Myrichthys ocellatus*.

[<http://www.fishbase.org/summary/2651>, downloaded 17 October 2016]

**TRAITS.** These tropical marine eels, commonly referred to as goldspotted snake eels or *Myrichthys ocellatus*, are characterized by a cylindrical shape with a pointed, finless tail. Their pointed, firm tail is adapted for burrowing. *Myrichthys ocellatus* grows to 100-120cm. It possesses a light brown colour with intense yellow (gold) spots with dark edges (Fig. 1), and its abdomen is a pale yellow colour.

**DISTRIBUTION.** *Myrichthys ocellatus* is found in the western Atlantic Ocean from Bermuda to the coast of Brazil (Fig. 2). This species is therefore native to the Caribbean, including in Trinidad and Tobago.

**HABITAT AND ECOLOGY.** This fish is known as a demersal species, living close to the sea floor. It resides on shallow coral reefs, seagrass beds, in sandy and rocky bottoms in algal clumps or between rock crevices. These snake eels can move around freely in sand, they are also seen in lagoons. *Myrichthys ocellatus* is nocturnal, their feeding occurs at night when they feed primarily on crustaceans, stomatopods and echinoderms. They bury themselves in the substrate in the day time. These snake eels dig prey from the substrate using both their head and tail (Fig. 3). First, they locate prey and make a small hole in the substrate above the prey with the head. Next they

bring the tail close to the head and place it in the hole. They then remove the head and make vigorous movements of the body, digging a deeper hole with the tail. Finally, the head returns to the hole to ingest the prey.

**BEHAVIOUR.** An interspecific relationship was observed between a goldspotted snake eel and a small grouper, *Epinephelus* sp., in a stony reef shoreline at 4-5m depth (Fig. 4). The following behaviour of the grouper and the eel was quite intriguing. The grouper (follower) was trailing closely behind the goldspotted snake eel when a scuba diver stumbled upon the pair. When the eel scoured the ocean floor, stealthily prowling and sticking its head in corners and nooks, the grouper positioned itself near the head of the eel. When the eel destroyed the home of the prey, the grouper fed on food items that were displaced from the substrate.

**APPLIED BIOLOGY.** According to the IUCN Red List (2016), the goldspotted snake eel is of Least Concern, indicating that this species is not endangered nor at risk of extinction.

#### REFERENCES

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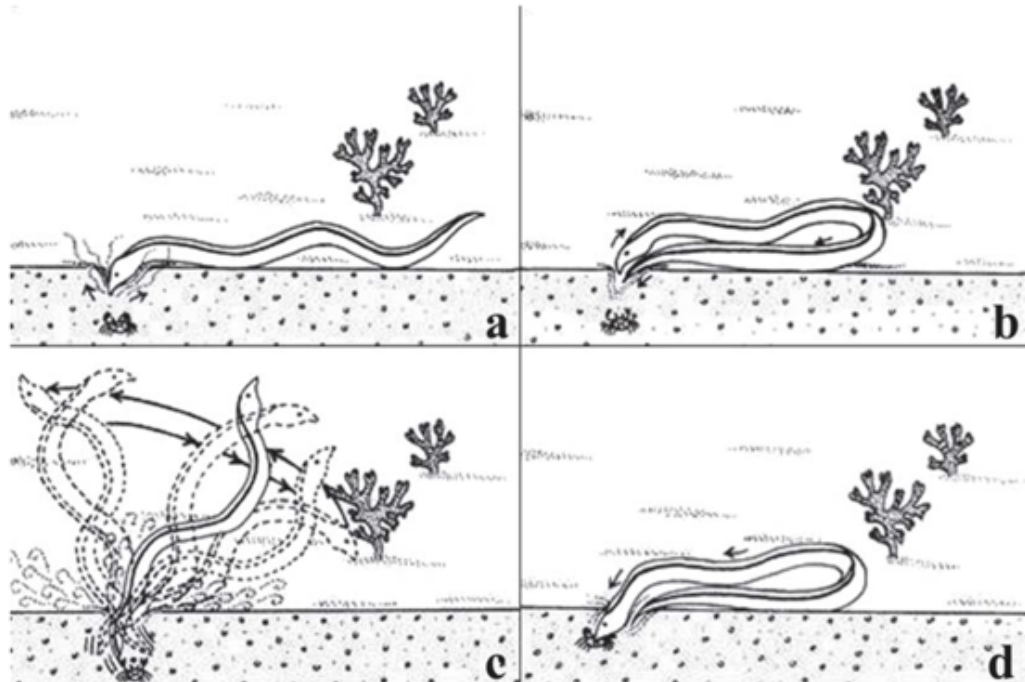
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**Fig. 2.** Distribution map of *Myrichthys ocellatus*.

[[http://www.aquamaps.org/receive.php?type\\_of\\_map=regular](http://www.aquamaps.org/receive.php?type_of_map=regular), downloaded 17 October 2016]



**Fig. 1.** Capture sequence of *Myrichthys ocellatus* involving head and tail: (a) initial scattering movements with the head; (b) tail taking over the position of the head; (c) widening hole with the tail; (d) moment of prey capture. Illustrated by Francisco Costa.

**Fig. 3.** Feeding mechanism of *Myrichthys ocellatus*.

[[http://www.scielo.br/scielo.php?pid=S1679-62252009000300019&script=sci\\_arttext](http://www.scielo.br/scielo.php?pid=S1679-62252009000300019&script=sci_arttext), downloaded 17 October 2016]



**Fig. 4.** Association of *Myrichthys ocellatus* with a grouper.

[[http://www.scielo.br/scielo.php?pid=S1679-62252009000300019&script=sci\\_arttext](http://www.scielo.br/scielo.php?pid=S1679-62252009000300019&script=sci_arttext), downloaded 17 October 2016]

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