

## *Selene vomer* (Lookdown)

Family: Carangidae (Jacks and Pompanos)

Order: Perciformes (Perch and Allied Fish)

Class: Actinopterygii (Ray-finned Fish)



**Fig. 1.** Lookdown, *Selene vomer*.

[<https://www.google.com/search?tbm=isch&q=selene+vomer&hl=en&authuser=0> downloaded 10 November 2016]

**TRAITS.** *Selene vomer* is a marine species of fish which is commonly referred to as the lookdown. A fully grown *Selene vomer* appears to have tiny shimmery/metallic scales along its entire body (Fig. 1), which give it the shiny reflection as it moves through its environment. It has a laterally flat body with elongated dorsal and anal fins and a steep sloping head with a protruding mouth located at the bottom of its body (McEachran and Fechhelm, 2005). There is no visual differentiation between male and female from the species external features.

**DISTRIBUTION.** It can be found over a vast range of the north and north-west Atlantic Ocean, from Maine to Florida (USA) and along the coast of Central and South America to Uruguay, including Bermuda, Brazil, Jamaica, Suriname, Trinidad and Tobago and the Gulf of Mexico. All populations of this species make annual seasonal migrations of generally 200km or less to breeding sites, wintering grounds and hibernation sites (Smith-Vaniz et al., 2016).

**HABITAT AND ECOLOGY.** Occupies marine and brackish waters. This species is diurnal which means that it is mainly active during the day for feeding and movement as it feeds on crustaceans, worms and small fish (Klein-MacPhee et al., 2002). Its main morphological adaptation of the sloping forehead allows *Selene vomer* to be a bottom feeder (Fig. 2). In the wild the life span of this species is not known, but in aquariums there have been reports of it having a life expectancy of about 20 years, reaching lengths of 40cm and weighing as much as 2.0 kg (McEachran and Fechhelm, 2005). This species is abundant as it moves in both schools and shoals which provides safety in numbers.

**REPRODUCTION.** Little is known about this species spawning behaviour but it spawns in the summer months and produces an unknown number of pelagic eggs (McEachran and Fechhelm, 2005). Pelagic eggs are defined as eggs which are buoyant and float freely in aquatic environments. Spawning and development of eggs are believed to occur out at sea whilst the development and maturation of juveniles occur closer inshore. Juveniles are typically found at the mouth of a river which is known as an estuary. Being located in estuaries is beneficial as it's a good source of food as well as the roots of mangroves provide shelter/security for the young lookdown (Klein-MacPhee et al., 2002). Juveniles have a different appearance when compared to the shiny adults as they have a dusky, slightly oblique cross band and a band over their eyes (McEachran and Fechhelm, 2005).

**BEHAVIOUR.** This species is preyed upon by other fish and as a result it is typically part of a large school of other *Selene vomer* as they are more protected in numbers (Fig. 3). Its laterally flat body enables it to have a great deal of speed and agility to escape encounters with predators. When in a school, the metallic reflection of numerous fish darting around quickly tends to confuse the predator as it cannot single out an individual prey easily. *Selene vomer* has also adapted to manipulate light across its body to further improve its camouflaging capability (Cummings, 2013). If a lookdown is threatened or under stress it can use its swim bladder and teeth to produce grunting noises in an effort to deter its predator (Dallas World Aquarium, 2016). It is also very docile with human interactions and poses no threat to persons in the water.

**APPLIED BIOLOGY.** The IUCN Red List of Threatened Species states that *Selene vomer* is of Least Concern. This species is not typically harvested for food consumption. It is a part of many aquariums due to its calm demeanour and adaptability to harsh environments. It has also been known to be used as bait by fishermen and as a "good pull" by anglers due to its agility and speed.

## REFERENCES

- Cummings, M. 2013. Researchers Discover a New Way Fish Camouflage Themselves in the Ocean. *UT News*. N.p., 4 June 2013.
- Dallas World Aquarium. 2016. Lookdown Fish – *Selene vomer*.
- Klein-MacPhee, G., Collette, B. B., and Klein-MacPhee, G. (eds.) 2002. Jacks: Family Carangidae. Bigelow and Schroeder's Fishes of the Gulf of Maine, Third Edition. 411-427
- McEachran and Fechhelm. 2005. Lookdown - *Selene vomer*. Encyclopedia of Life.
- Smith-Vaniz, W.F., Williams, J.T., Pina Amargos, F., Curtis, M. and Brown, J. 2015. *Selene vomer*. The IUCN Red List of Threatened Species 2015

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**Fig. 2.** The sloping head of the lookdown.

[<https://s-media-cache-ak0.pinimg.com/236x/c2/f3/3e/c2f33e2b2f2b0c8585a125ea9faec037.jpg>, downloaded 10 November 2016]



**Fig. 3.** A small school of *Selene vomer*.

[<https://s-media-cache-ak0.pinimg.com/236x/ec/25/29/ec252948129d52f49ed04c63cbb0b5a4.jpg>, downloaded 10 November 2016]