

Euthynnus alletteratus (Little Tunny)

Family: Scombridae (Mackerels, Tunas and Bonitos)

Order: Perciformes (Perch and Allied Fish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Little tunny, *Euthynnus alletteratus*.

[<http://www.laptewproductions.com/videos/?p=4009>, downloaded 9 March 2016]

TRAITS. *Euthynnus alletteratus* (little tunny or false albacore) are deep blue to black along the mid-dorsal line, silver over the entire ventral underbelly, with a pattern of longitudinal black bars running from the mid-section to the tail (Fig. 1) (Godsil, 1954). There is the formation of a corselet by the presence of large, thick scales encasing the body behind the head (Bester, 2016). The tail fin is crescent shaped and the pectoral fins are pointed and short. There are also 8 or 9 dorsal finlets and 6-7 anal finlets (Bester, 2016). A distinguishing feature of *E. alletteratus* is the absence of an additional row of teeth along the outer border of the upper jaw to prevent escaping of prey, which is normally seen in tuna species (Bester, 2016). The average weight of *E. alletteratus* is 2-7kg with a possible maximum weight of 18kg (Ristori, 2002).

DISTRIBUTION. *E. alletteratus* are highly migratory schooling fish that can be located in the tropical and subtropical waters of the Caribbean Sea, Black Sea, Gulf of Mexico and Mediterranean (Fig. 2) at depths ranging from 1-150m (Fisheries and Aquaculture Department, 1994).

HABITAT AND ACTIVITY. The little tunny habitat is near the shore around the warmer waters of thermal fronts and in areas with swift currents, at temperature from 24-30°C (El-Haweet et al., 2013). *E. alletteratus* is not as migratory as other members of its family Scombridae but moves to the south during the winter and fall and then north in the summer (Garcia and Posoda, 2012).

FOOD AND FEEDING. The little tunny is an opportunistic feeder and generally feeds on crustaceans, clupeid fishes (sardines and herrings), squids and tunicates at the surface of the water (Bester, 2016). When a school of *E. alletteratus* are feeding close to the surface on baitfish such as herring, a frenzy can be seen at the surface of the water, often with diving birds overhead (Collette, 1997). The little tunny is seen as a high trophic level predator in the range of 4.0 to 4.5 (Garcia and Posoda, 2012). Being an opportunistic predator, the diet of the little tunny is seasonal to prey which is available at a given time, and their time of feeding is diurnal with a marginal peak in the afternoon (Garcia and Posoda, 2012).

POPULATION ECOLOGY. *E. alletteratus* is a school species where these school are made up of individuals of similar age which do not persist through the year and are sometimes further scattered through their habitat (Bester, 2016). These schools are active at various depths ranging from 1-150m. (Bester, 2016). The general longevity of *E. alletteratus* is approximately 8-10 years, with first maturity generally being achieved in 2-3 years (Collette et al., 2011). This age of first maturity results in the estimated generation length of approximately 4 years (Collette et al., 2011).

REPRODUCTION. The little tunny spawning period starts from April and ends in November for the western and eastern parts of the Atlantic Ocean while in the Mediterranean Sea spawning takes place from May to August (Bester, 2016). This spawning period lasts 4-8 months and occurs in the northern and southern hemispheres corresponding to warm periods of the year (El Haweet et al., 2014). The little tunny is a dioecious species where the male can be distinguished from the female by size with the male being larger. The *E. alletteratus* spawning process is external and its frequency variable where the female only release eggs when the water is warmest. Fertilization begins with the female releasing eggs in batches of as many as 1.7 million eggs within the water column (Bester, 2016). Within this water column the male releases sperm which fertilizes the eggs. The fertilized eggs are pelagic, spherical and transparent, they are small with a diameter of 0.8-1.1mm and an overall colour of amber (Bester, 2016). The larvae hatch 24 hours after fertilization and only measure 3mm in size; later on juveniles transition to the form of adults (Fig. 3) (Bester, 2016).

BEHAVIOUR. Not much is known about the behaviour of *E. alletteratus*. It has been observed that juveniles form tight groups and are further offshore than the adults (Encyclopedia of Life, 2016).

APPLIED ECOLOGY. *E. alletteratus* is a commercial fish, sold fresh, canned, smoked, and frozen (Bester, 2016). It is also used in sport fishing and as bait for marlin fishing due to its good hook retention and high oil content (Collette et al., 2011). The conservation efforts established to protect the little tunny include the Convention on the Law of the Sea (Bester, 2016). The International Commission for the Conservation of Atlantic Tuna (ICCAT) Standing Committee on Research and Statistics has recommended that there be further studies carried out to determine the state of the stocks of the little tunny and possible management solutions (Collette et al., 2011).

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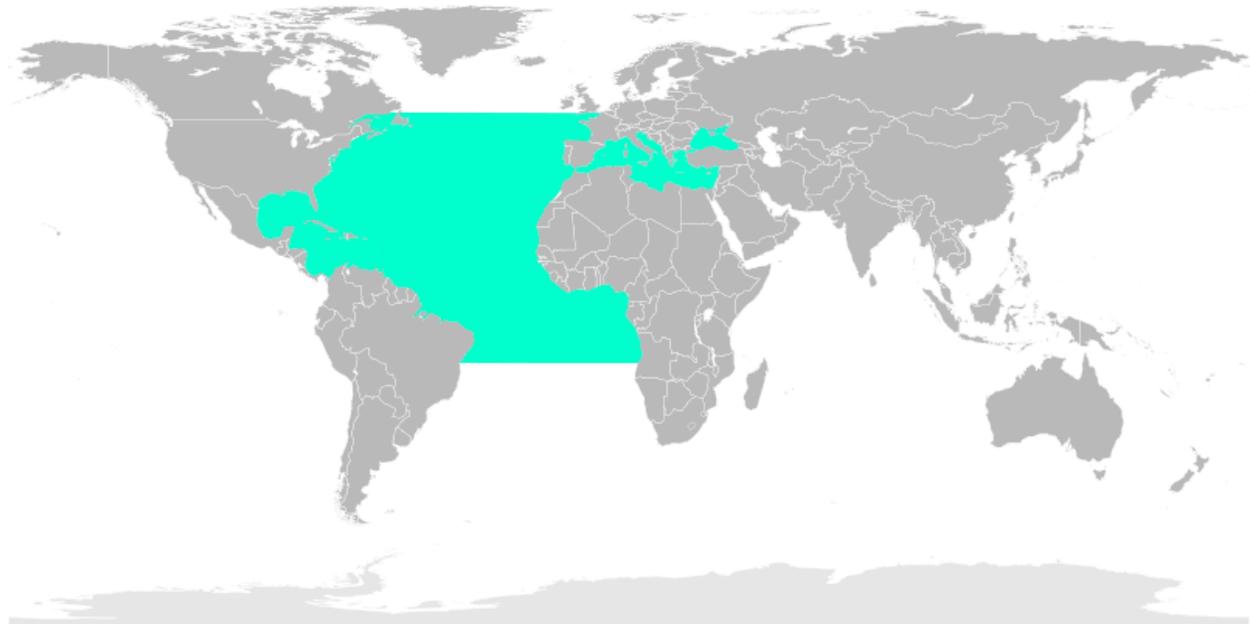


Fig. 2. Little tunny geographic distribution.

[https://en.wikipedia.org/wiki/File:LittleTunny_Range_Map.svg, downloaded 9 March 2016]



Fig. 3. Little tunny juveniles.

[http://www.iccat.org/Documents/CVSP/CV058_2005/no_2%5CCV058020630.pdf, downloaded 9 March 2016]

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