

Lutjanus analis (Mutton Snapper)

Family: Lutjanidae (Snappers)

Order: Perciformes (Perch and Allied Fish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Mutton snapper, *Lutjanus analis*.

[<http://www.arkive.org/mutton-snapper/lutjanus-analis/image-G65499.html>, downloaded 27 October 2016]

TRAITS. The largest mutton snapper or mutton fish recorded is 94cm in length while the average length of males and females is 50cm. They can weigh up to 7kg. They are deep-bodied, laterally compressed fish that have 10-11 dorsal spines, 3 anal spines, 8 anal soft rays. *Lutjanus analis* is the only snapper species that is known to have 13-14 dorsal soft rays (FishBase, 2016). The pectoral fins are long, reaching past the anus. The head is step and straight to the snout. The mouth is large and contains villiform (brush-like) teeth and six canine teeth in the upper jaw, four of which are large. The eye is small and there is a pair of blue stripes running from the snout to behind the eye (Fig. 1). The dorsal side is olive green, that fades laterally and ventrally; adults also have a red tinge on their ventral side. Juveniles have eight yellow bands on their body (Murray and Bester, 2016).

DISTRIBUTION. They can be found in the Atlantic Ocean from Massachusetts to Brazil inclusive of the Caribbean Sea and the Gulf of Mexico (Fig. 2). They are most abundant in the Bahamas and off the coast of southern Florida (Allen, 1985).

HABITAT AND ECOLOGY. *Lutjanus analis* can be generally be found in shallow seas and marine brackish water at depths between 25-95m (FishBase, 2016). Larvae and juveniles can be

found in estuaries close to the shoreline among seagrass. Adults on the other hand can found in the open ocean among rock and corals; they tend to stay in an area once they become resident. They feed both day and night. Larvae feed on plankton while adults and juveniles feed on molluscs, crustaceans and crabs. They have a life span up to 29 years (Allen, 1985).

REPRODUCTION. They become sexually mature at 40-50cm in length (FishBase, 2016). They spawn in February in the Caribbean, May to August further north, and breeding aggregations peak during the full moon (Burton et al., 2005). During this time, males and females swim inshore to form spawning aggregations (Fig. 3). Pelagic eggs and sperm are released into the sea and the adults swim back offshore. Eggs hatch 20 hours after the fertilization, the larvae initially using their yolk sac for food. Within 48 hours of hatching 10mm feeding larvae are formed, and move inshore into a habitat that would protect them from their predators. In this habitat, they feed and grow into juveniles (Murray and Bester, 2016).

BEHAVIOUR. The mutton snapper is a quite unsocial species as they only come together to spawn (Burton et al., 2005; Murray and Bester, 2016). They are preyed on by sharks and large fish including other snappers. Juveniles protect themselves by hiding among sandy seagrass areas. They are further aided by their colour i.e. lateral bands which help camouflage themselves in their habitat (Fig. 4) (Murray and Bester, 2016).

APPLIED BIOLOGY. The high site fidelity of the snapper makes it very vulnerable to being overfished and exploited by many commercial fishermen during spawning season. The adults are not only exploited but also the juveniles. The IUCN list the species as Near Threatened and thus many conservation methods have been employed by management councils. For example, the South Atlantic Fishery Management Council requires recreational fishermen to have a permit to catch the fish (IUCN, 2016).

REFERENCES

- Allen, G. R. 1985. Snappers of The World. Rome: Food and Agriculture Organization of the United Nations.
- Burton, M. L., Brennan, K.J., Muñoz, R.C. and Parker, R.O. Jr. 2005. Preliminary Evidence of Increased Spawning Aggregations Of Mutton Snapper (*Lutjanus analis*) At Riley'S Hump Two Years After Establishment Of The Tortugas South Ecological Reserve. North Carolina: Center for Coastal Fisheries and Habitat Research National Marine Fisheries Service National Oceanic and Atmospheric Administration.
<http://fishbull.noaa.gov/1032/burton.pdf>.
- IUCN. 2016. *Lutjanus analis* (Mutton Snapper). <http://www.iucnredlist.org/details/12416/0>.
- Fishbase. 2016. *Lutjanus analis* Summary Page.
<http://www.fishbase.org/Summary/SpeciesSummary.php?ID=1403&AT=mutton+snapper>.
- Murray, R. and Bester, C. 2016. *Lutjanus analis*. Florida Museum of Natural History.
<http://www.flmnh.ufl.edu/fish/discover/species-profiles/lutjanus-analis>.

Author: Rondell K. Jeffrey

Posted online: 2016

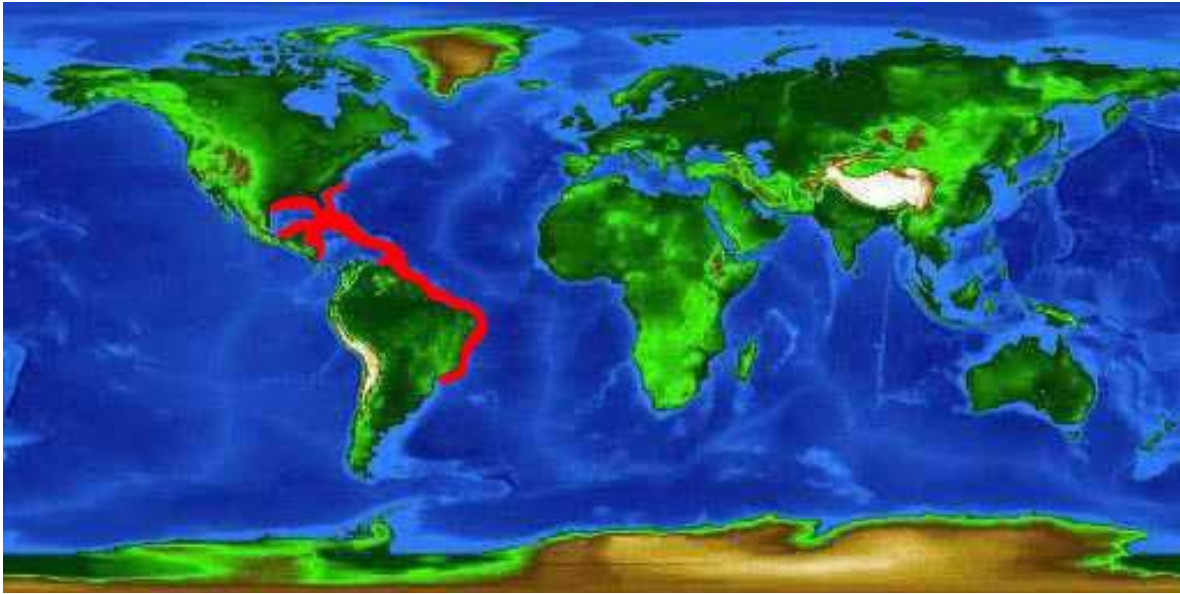


Fig. 2. Distribution of *Lutjanus analis*.

[<https://www.flmnh.ufl.edu/fish/discover/species-profiles/lutjanus-analis>, downloaded 27 October 2016]



Fig. 3. Mutton snapper spawning aggregation (with shark preparing for a meal).

[<http://www.arkive.org/mutton-snapper/lutjanus-analis/image-G65997.html>, downloaded 27 October 2016]



Fig. 4. Juvenile *Lutjanus analis*.

[<http://www.coralreeffish.com/lutjanidae.html>, downloaded 27 October 2016]

For educational use only - copyright of images remains with original source