

Seriola dumerili (Greater Amberjack)

Family: Carangidae (Jacks and Pompanos)

Order: Perciformes (Perch and Allied Fish)

Class: Actinopterygii (Ray-finned Fish)

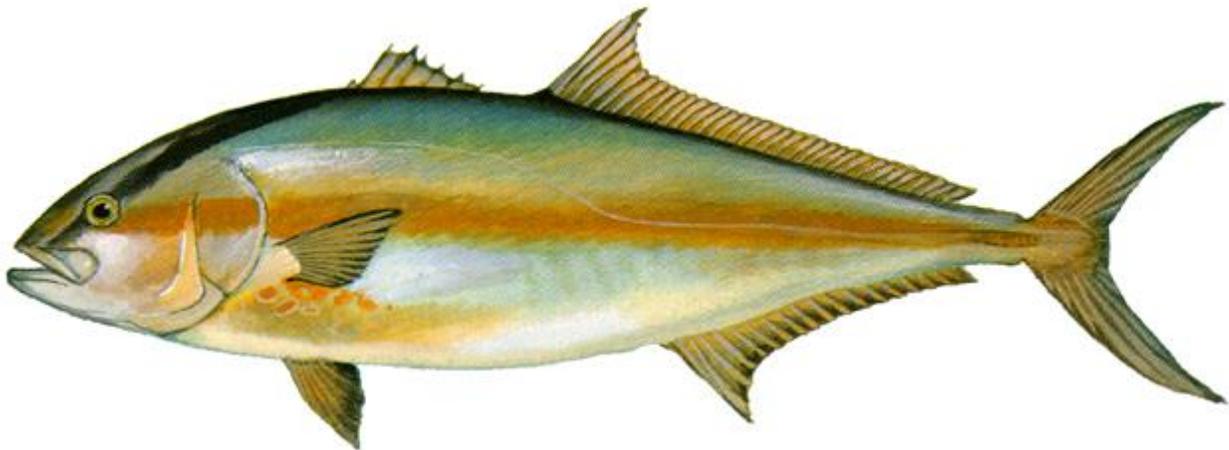


Fig. 1. Greater amberjack, *Seriola dumerili*.

[http://portal.ncdenr.org/web/mf/amberjack_greater downloaded 20 October 2016]

TRAITS. The species *Seriola dumerili* displays rapid growth during development as a juvenile progressing to an adult. It is the largest species of the family of jacks. At adulthood, *S. dumerili* would typically weigh about 80kg and reach a length of 1.8-1.9m. Sexual maturity is achieved between the age of 3-5 years, and females may live longer and grow larger than males (FAO, 2016). *S. dumerili* are rapid-moving predators as shown by their body form (Fig. 1) (FLMNH, 2016). The adult is silvery-bluish in colour, whereas the juvenile is yellow-green. It has a characteristic goldish side line, as well as a dark band near the eye, as seen in Figs 1 and 2 (FAO, 2016; MarineBio, 2016; NCDEQ, 2016).

DISTRIBUTION. *S. dumerili* is native to the waters of Trinidad and Tobago. Typically pelagic, found between depths of 10-360m, the species can be described as circumglobal. In other words, it is found worldwide, as seen in Fig. 3, though much more rarely in some areas, for example the eastern Pacific Ocean (IUCN, 2016). Due to this distribution, there is no threat to the population of the species, despite overfishing in certain locations. Migrations do occur, which are thought to be linked to reproductive cycles. This migration usually occurs around spring, coinciding with a large spike of juveniles in the summer (FLMNH, 2016; FAO, 2016).

HABITAT AND ECOLOGY. *S. dumerili* is a diurnal feeder (WOL, 2007). They may have a life span ranging from 10-17 years. Pelagic, the greater amberjack can also be characteristically found in the vicinity of floating debris as well as rocky reefs (FLMNH, 2016; MarineBio, 2016; NCDEQ, 2016). Feeding habits change during progression from a juvenile to an adult. Juveniles may consume plankton as well as other small invertebrates. On the other hand, the adult consumes

crustaceans, squid and even other pelagic fish. Typically favoured prey includes sardines, as well as the bigeye scad (MarineBio, 2016; FLMNH, 2016).

REPRODUCTION. The smallest young of *S. dumerili*, referred to as larvae, undergo significant morphological changes during development into an adult. *S. dumerili* is a fecund egg laying species, spawning occurring in general in March to July, most notably during May and June. It is estimated that there may be 15-59 million eggs produced by a female in a season (IUCN, 2016; FLMNH, 2016; FAO, 2016).

BEHAVIOUR. The larger young, or juveniles, of *S. dumerili* may be found in schools. However, as they become older, they tend to favour a more solitary life. Aggressive behaviour has been displayed by juveniles. In an experiment, it was seen that the smaller individuals of a school were subject to aggressive behaviour (ScienceDirect, 2016). In another experiment, it was seen that *S. dumerili* subject to a limited food supply and little space became aggressive and even displayed cannibalism. As expected, this is characteristically displayed against the smaller individuals (WOL, 2011). The reclusive behaviour shown by the adult suggests that the belligerence is not tamed over time, therefore, individuals would prefer to keep to themselves rather than associate in groups. This is not uncommon in predatory animals.

APPLIED BIOLOGY. The species is categorized as Least Concern by IUCN. This is due to its fecundity and global reach. It is found in aquariums as pets or just on display, and is also consumed as food by humans. It hence has a commercial significance (IUCN, 2016). Those members of the species under 35cm in length are protected from May until September (FAO, 2016). The species is also subject to hunting for sport (IUCN, 2016). *S. dumerili* may be infected by parasites and microorganisms, such as tapeworms or marine dinoflagellates respectively. In some cases, the microorganisms may cause serious illness. On the other hand, tapeworms affecting the fish are usually harmless to humans, and can be easily removed (FLMNH, 2016; FAO, 2016).

REFERENCES

- ADW. (2016). Animal Diversity Web - *Seriola dumerili*, Greater Amberjack. http://animaldiversity.org/accounts/Seriola_dumerili/classification/.
- FAO. (2016). Fisheries and Aquaculture – *Seriola dumerili* http://www.fao.org/fishery/culturedspecies/Seriola_dumerili/en#tcNA002B.
- FLMNH. (2016). Florida Museum of Natural History – *Seriola dumerili* <https://www.flmnh.ufl.edu/fish/discover/species-profiles/seriola-dumerili/>.
- IUCN. (2016). *Seriola dumerili* <http://www.iucnredlist.org/details/198643/0>.
- MarineBio. (2016). Greater Amberjacks, *Seriola dumerili* <http://marinebio.org/species.asp?id=462>.
- NCDEQ. (2016). Greater Amberjack. http://portal.ncdenr.org/web/mf/amberjack_greater.
- ScienceDirect. (2005). First results of greater amberjack (*Seriola dumerili*) larval rearing in mesocosm <http://www.sciencedirect.com/science/article/pii/S0044848605001237>.
- WOL. (2007). Wiley Online Library – Circadian self-feeding rhythms in greater amberjack *Seriola dumerili* (Risso) <http://onlinelibrary.wiley.com/doi/10.1111/j.1095-8649.2007.01316.x/full>.
- WOL. (2011), Wiley Online Library – Aggressive behaviour and cannibalism in greater amberjack, *Seriola dumerili*: effects of stocking density, feeding conditions and size differences. <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2109.2010.02722.x/full>.

Author: Keston S. R. Paul

Posted online: 2016



Fig. 2. *Seriola dumerili* specimen.

[https://commons.wikimedia.org/wiki/File:Seriola_dumerili-_Greater_amberjack.png downloaded 22 October 2016]



Fig. 3. *Seriola dumerili* distribution.

[<https://www.flmnh.ufl.edu/files/2714/0423/6334/Seriola-dumerili-map.JPG> downloaded 22 October 2016]

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