

Nomeus gronovii (Man-of-war Fish)

Family: Nomeidae (Drift fish)

Order: Perciformes (Perch and Allied Fish)

Class: Actinopterygii (Ray-finned Fish)



Fig. 1. Man-of-war fish, *Nomeus gronovii*.

[<http://www.fishesofaustralia.net.au/home/species/2927>, downloaded 9 March 2016]

TRAITS. The elongate body of *Nomeus gronovii* or man-of-war fish can grow up to 39cm in adults, with juveniles mostly observed between 5-15cm. They possess large eyes and small teeth on the jaw, centre and sides of mouth as well as on the gill arches, but not on the tongue. The first of two dorsal fins is membranous and composed of thin spines. It is relatively tall and angular with a hind margin that is curved or rounded, and located above the pectoral fin bases (Fig. 1). The second dorsal fin is elongated and low. The caudal fin is deeply forked, creating pointed scissor-like fin tips when the upper and lower lobes intersect. The pelvic fins are rounded and fan-shaped. They possess a mottled and spotted bright blue coloration on their backs with silver sides. The first dorsal fin is dark blue and the second dorsal fin and the anal, caudal and pectoral fins have large dark blue spots. The pelvic fins are for the most part black. Adults are mostly brown (Australian Museum, 2014).

DISTRIBUTION. *Nomeus gronovii* is distributed with a wide range of latitudes in temperate and tropical waters, and found in all oceans (Fig. 2). It is widespread in the Pacific and Indian Oceans and common in the Caribbean Sea, but less common in the eastern Atlantic. It is native to Trinidad and Tobago (IUCN, 2015).

HABITAT AND ACTIVITY. The habitats of *Nomeus gronovii* are located offshore in warm pelagic zones of oceanic water, that is, water that is neither close to the bottom of the sea or close to the shore. They are surface-dwellers but reach a lower limit of approximately 1000m depth. They are most frequently associated with the Portuguese man-of-war, *Physalia physalis*. Juveniles are also found at the surface among *Sargassum* seaweed. They are diurnal or most active during the day (Australian Museum, 2014).

FOOD AND FEEDING. *Nomeus gronovii* are carnivore/planktivores. Their diet consists of the tentacles and gonads of *Physalia physalis* and may include other soft-bodied jellyfish in addition to zooplankton. They manoeuvre their way in between the tentacles of *Physalia physalis* as they feed. Their ability to feed on the tentacles with minimal effect from stings is due to them simply being extremely agile swimmers. The high number of flexible vertebrae possessed may contribute to their agility. They also practise selective plankton feeding (Australian Museum, 2014).

POPULATION ECOLOGY. *Nomeus gronovii* are rarely found by themselves but instead occur in large groups of the same species. They can be found in especially large numbers in the presence of *Physalia physalis* blooms, and may live to as much as 5 years (FishLore, 2015). Each *Physalia physalis* may be surrounded by 5-10 adult fish with numerous juveniles swimming about their tentacles (YouTube, 2014).

REPRODUCTION. These fish are oviparous, meaning eggs are released from the female and fertilized after release. The eggs as well as the larvae are pelagic. This means that the eggs and larvae can be distributed across long distances, colonize new territory, and migrate from an overcrowded habitat that is unsuitable. Spawning or fertilization of eggs occurs in deeper water during seasons of low winds. This protects the adults from predation and allows larvae a higher chances of recruiting to their original population when placed in circulating currents. The number of offspring produced can range from 100-1000, and fertilized eggs hatch within 4-5 days. The juveniles are found mainly in the protection of *Physalia physalis* tentacles, often feeding on the tentacles and gonads (Rodha, 2008).

BEHAVIOUR. Juveniles tend to stay within the shelter of the jellyfish bell or at the surface near sargassum weed, while adults may be found swimming around the tentacles of the jellyfish or anywhere within the 1000m deep water column. Both adults and juveniles practice crypsis, which is the avoidance of detection by camouflaging to resemble the surroundings. Note the colouration of the juvenile fish in Fig. 1. This is done specifically through countershading where the dorsal surface is dark in colour and ventral surface is lightly coloured. The blue and silver coloration helps these fish to blend in with the tentacles of the jellyfish and make them inconspicuous from most angles. The stinging tentacles of the jellyfish also protect them by warning off any predators (Keenleyside, 2012).

APPLIED ECOLOGY. This species of fish is listed with the IUCN. There are no known treats to this species and no specific conservations measures in place. This species does not pose any known threats to humans or the environment and are not utilized in trade, harvesting, hunting, or as pets. There are no known problems of pest control or contributions to human disease.

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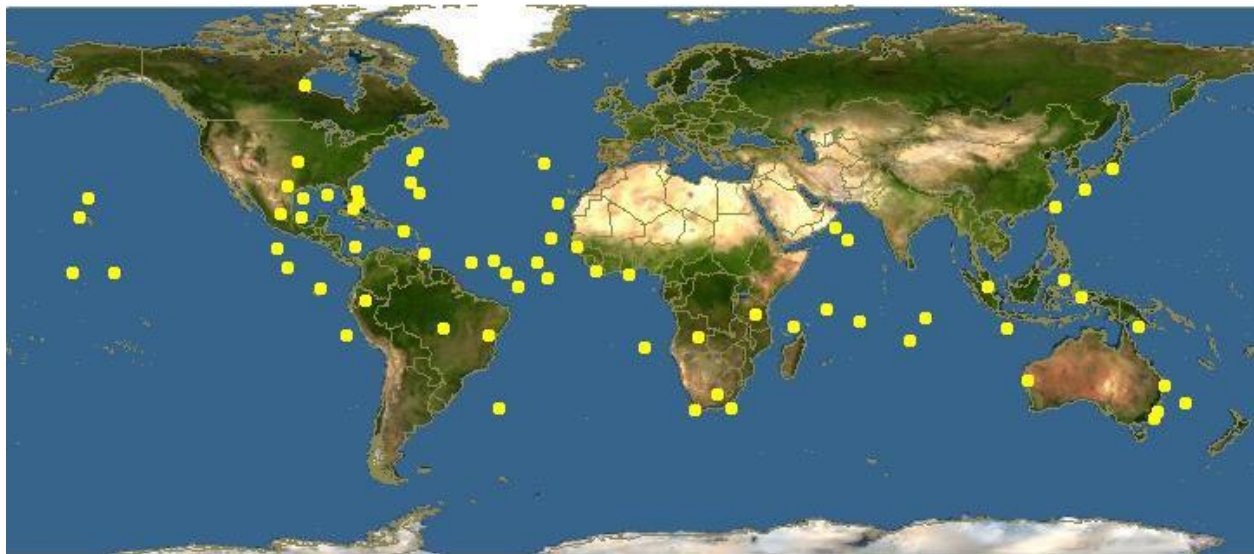


Fig. 2. Map of the distribution of *Nomeus gronovii*.

[http://eol.org/data_objects/21345538, downloaded 10 March 2016]

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