

Sphyraena barracuda (Great Barracuda)

Family: Sphyraenidae (Barracudas)
Order: Perciformes (Perch and Allied Fish)
Class: Actinopterygii (Ray-finned Fish)

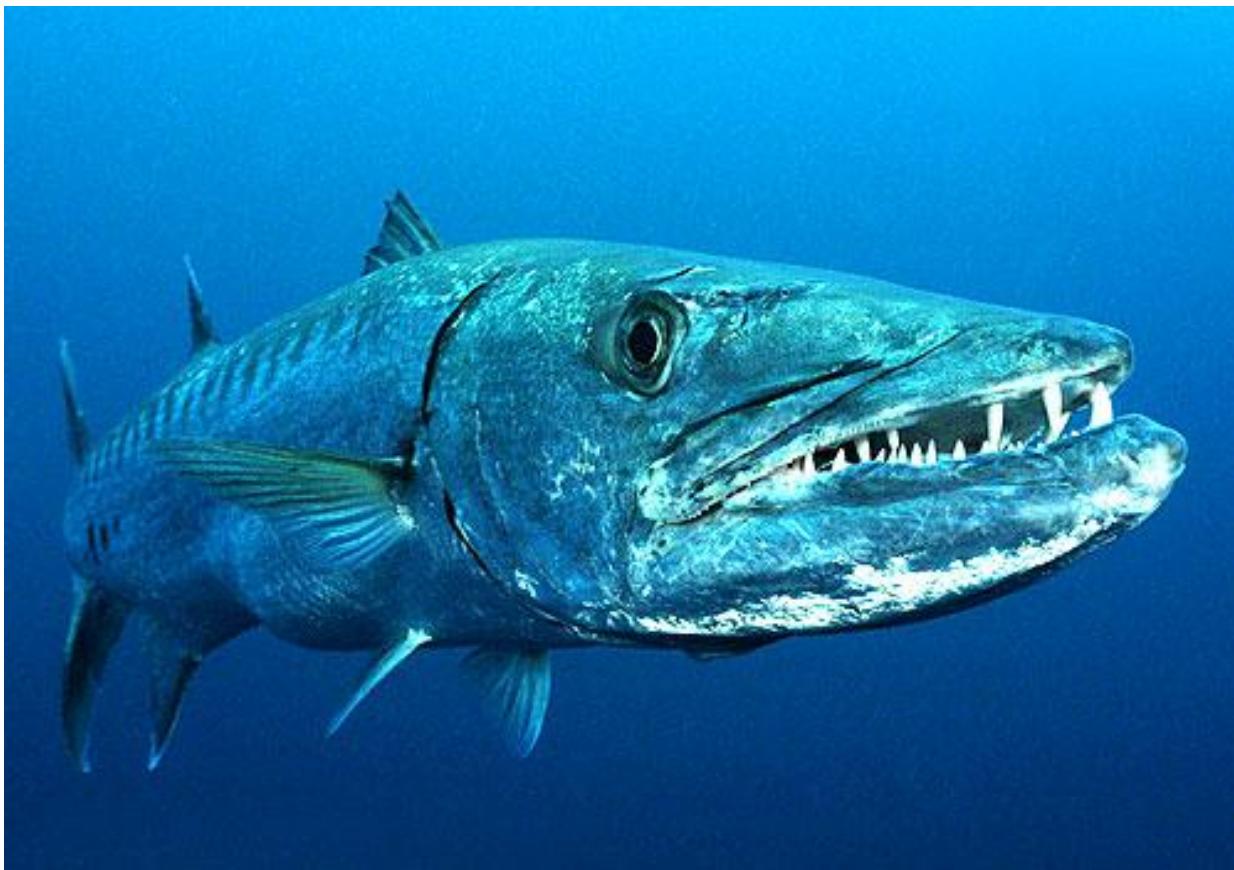


Fig. 1. Great barracuda, *Sphyraena barracuda*.

[<http://www.wildanimalfightclub.com/Portals/41405/images/Great-Barracuda500.jpg>, downloaded 7 March 2015]

TRAITS. Great barracudas can weigh 10-40kg (Dunaway, 2004) and can reach a maximum length of about 2m. The barracuda's body is elongated with a flattened head and a large mouth with protruding jaws containing pointed, jagged, sharp teeth (Fig. 1). They have a forked tail, tiny gill rakers, a large caudal (tail) fin, and the anal and posterior dorsal fins are located at the back of the body with five spines and one spine, respectively (Nelson, 2007). This alignment of the fins allows the fish to swim and launch at fast speeds towards its prey (Moyle and Cech, 2003). They have a lateral line which is sensitive to movement in the water. The colour of the barracuda is bluish grey on the dorsum (upper side) and it has a silvery appearance on the sides. There are dark spots on the lower sides of the great barracuda. According to the juveniles surroundings they can alter their colours to camouflage. The adults are more silvery and this makes them less seen by predators.

DISTRIBUTION. Great barracudas are native to Trinidad and Tobago. They can also be found in sub-tropical regions of the Atlantic, Pacific, and Indian Oceans, Caribbean Sea and the Red Sea (Fig. 2).

HABITAT AND ACTIVITY. Great barracudas and many of its other species can be found in brackish water or in reefs (Fig. 3). Juveniles can be found in sheltered reef areas, mangroves, estuaries and inshore seagrass beds. Adults can be found in open seas, murky harbours, inshore channels, lagoons, bays, inlets, mangroves, reefs, piers, sandy flats and grassy flats. They prefer to live in shallow areas. Many barracudas are found to be close to the surface in open seas and some species are known to swim to 100m. Great barracudas are diurnal meaning that they are very active during the day. At sunrise, they feed two hours after and two hours before sunset.

FOOD AND FEEDING. Barracudas are carnivores. Great barracudas are predators and are found at the top of the food chain as adults but at juvenile stage they can fall prey to sharks, groupers and killer whales which can also eat adult barracudas. They feed on octopus, crustaceans, snapper, small tuna, shrimp, squid, jacks, grunts, groupers, mullets, herrings, anchovies and needlefish. Barracudas are known to be scavengers as well as hunters. As scavengers, they tend to follow larger fishes such as sharks and eat the remaining pieces of whatever is left after the larger fish eats. They tend to be opportunistic predators. They lurk and camouflage example near a sea grass to attack and ambush a prey (Fig. 4). Barracudas spend less time slow swimming or hovering, it conserves all its energy for feeding and preventing predators. Due to its lateral line on its body it can detect when a prey is nearby by sensing the movement of the water. They have great eyesight and a powerful jaw. They can reach speeds up to 40km/h when hunting and snaps at a prey with extreme power. They are attracted to silvery appearances and movement. They mainly depend on sight rather than smell. Barracudas are very aggressive. It is one of the most dominant predators in coastal areas and is well known for its swift movements.

POPULATION ECOLOGY. Barracudas can swim alone such as the great barracuda or in schools such as the blackfin barracuda (*Sphyraena qenie*) and blackspot barracuda (*Sphyraena putnamiae*). The great barracuda which swims alone is solitary and diurnally active (Sexton, 2009). The average lifespan of the great barracuda is 10-14 years and females can reach 18 years. Not listed in IUCN.

REPRODUCTION. Spawning of the great barracuda is not very clear by scientists but evidence shows that it takes place in offshore waters that are very deep. They breed during seasons, spring, summer and fall or between April and September. The eggs of the barracudas are released by the females who spawn a few times. The females can release up to 5,000 to 300,000 eggs. These eggs are left floating in the waters and are dispersed by currents and then fertilized. The fertilized eggs float in the water until they are hatched. In order to prevent predators, the barracuda larvae settle in estuaries that are shallow and vegetated for protection and feed for approximately a year. The juveniles are 1cm in length and when they reach a size of 3cm, they change their habitat to open waters but still within the estuaries. When they reach a size of around 6cm, again they change habitat and move to seagrass areas and mangroves. At adulthood, they move on to deeper waters such as deep reef areas and spend most of their lives there. Males tend to sexually mature in the first 3 years and females mature in 4 years.

BEHAVIOUR. Juvenile behaviour: Juveniles and young adults of the great barracuda species are solitary. They hunt alone, and feed in brackish areas, estuaries and mangroves. They feed on fishes such as herrings and sardines, shrimps and cephalopods.

Antipredator behaviour: The great barracuda since it swims alone, it stays away from predators by its speed and powerful launch at its prey. Great barracudas are predators themselves. They only fall prey to killer whales and sharks. Its speed is 40km/h and snaps a fish in half. They use a surprise attack and fast movement after camouflaging due to its silvery appearance. The lateral line on the body is sensitive to nearby movements in the water. Its sharp teeth and shaking of its head tears the prey into pieces manageable to swallow. They select their prey indiscriminately and due to its mouth length (SMS, 2015).

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Posted online: 2015

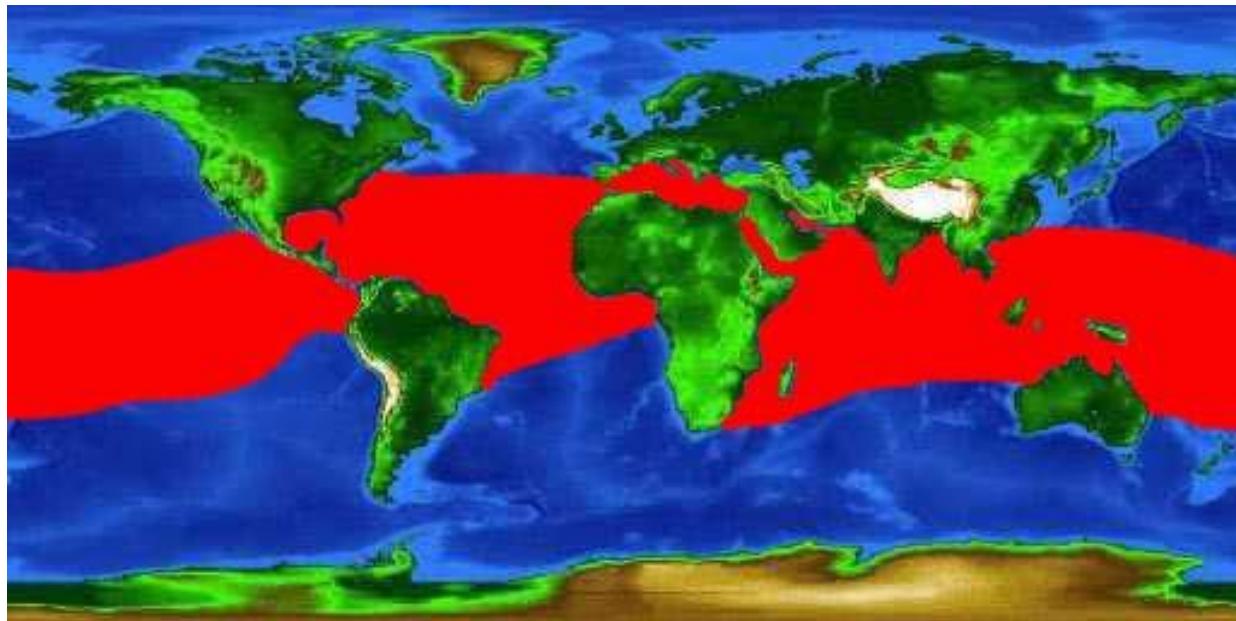


Fig. 2. Great barracuda geographic distribution.

[<https://www.flmnh.ufl.edu/fish/Gallery/Descript/GreatBarracuda/GreatBarracuda.html>] downloaded 7 March 2015]

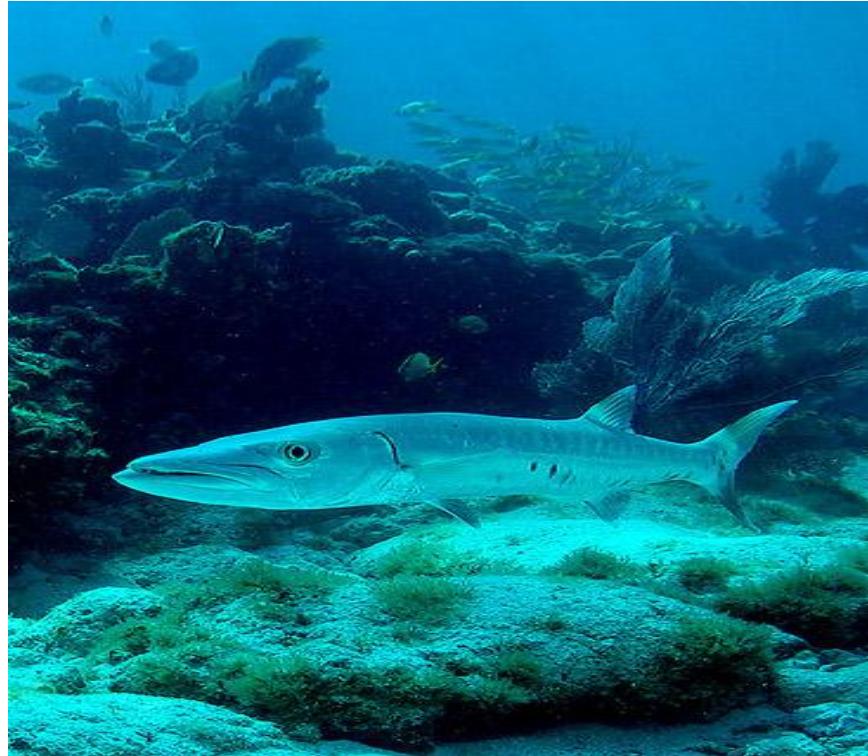


Fig. 3. Great barracuda at a coral reef.

[<http://marinebio.org/species.asp?id=108> downloaded 7 March, 2015]

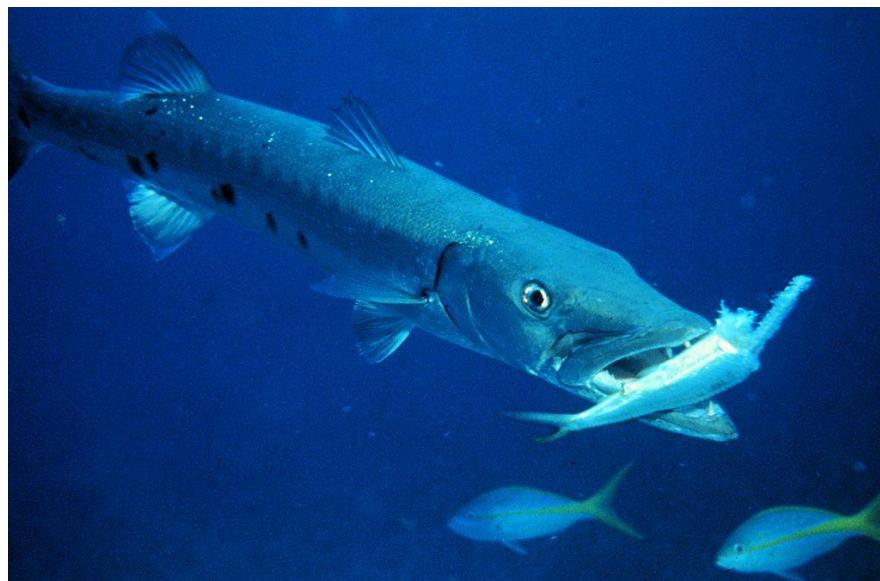


Fig. 4. Great barracuda feeding on its prey.

[http://en.wikipedia.org/wiki/Barracuda#mediaviewer/File:Barracuda_with_prey.jpg downloaded 8 March 2015]