



SCIENTIFIC NAME

Epinephelus striatus

DESCRIPTION

The Nassau Grouper belongs to the Seabass family of fish. All Seabass have strong, stout bodies and large mouths. Five dark brown bands, a black saddle-like spot near the tail fin, and a dark streak running from its nose through its eye are features that distinguish the Nassau Grouper from other groupers. The dorsal fin is notched between forward spines. The Nassau Grouper can change colour from pale to almost black to match its surroundings. It can grow to 1 to 2 feet long and can reach a maximum of 4 feet and weigh fifteen pounds or more. Nassau Groupers may live for more than 25 years.

The Nassau Grouper is a valuable fisheries resource and an important part of the coral reef community. The grouper is usually found in caves, crevices and cracks of the reef. It is rarely found deeper than 90 feet. This fish often rests on the sea bottom, blending with its surroundings. Nassau groupers are found throughout the Caribbean Sea.

DIET

Nassau Groupers, like most Seabass are predators. They sit camouflaged outside the openings of caves, and wait for unsuspecting prey to swim by. They see well without much light, and often hunt at dawn and dusk when other fish are looking for shelter or waking up. Groupers eat many animals such as lobster, crab, octopus and shrimp.

REPRODUCTION

Groupers spawn around the full moon during late December or early January after the seawater has begun to cool. They gather around banks by the thousands to spawn. Around this time they change colour: black on top and white on its belly. Spawning takes place at sunset when males and females move from the shallows and into deep water. Here they rise quickly to the surface in small groups releasing eggs and milt into the open sea. Males are often seen nudging the bellies of females as both sexes

swim rapidly toward the surface. Spawning continues for several days following the occurrence of the full moon.

Nassau grouper eggs are clear, less than 1 millimetre in diameter and they are buoyant. After they are fertilized they are carried away from the reef by the wind and tide. Within 20 - 45 hours baby fish called larvae hatch from these tiny eggs. After a month at sea, the ocean currents return the larvae to the reef. Of the million or so eggs released by each female, less than 1% will live and grow into adults.

Nassau Groupers can begin life as a female and then switch to male. Change can happen at any time after maturity - when they reach 10 to 24 inches long and 5 - 6 years old. Male groupers are larger and thus targeted by fishermen. This can result in a shortage of sperm. In response to heavy fishing pressure resulting in limited sperm, it is possible that a female may change to a male before reproducing as a female. In some groupers, there is no sex change.

VALUE

There is a strong local market for the Nassau Grouper. Traditional dishes such as Boiled fish and Grouper fingers, keep the Nassau Grouper in high demand. The fishing of Groupers provides hundreds of thousands of dollars in income to fishermen around The Bahamas.

THREATS

Nassau grouper is eaten by barracudas, lizard fish, dolphins, sharks and other large predators of the reef community. But the predators that have the biggest impact on the grouper population are humans. People are fishing groupers before they can grow to maturity and reproduce.

Sex change may also cause a problem. In undisturbed areas there are usually equal numbers of male and females. In heavily fished areas there are often three or more times more females than males. This means many eggs will not be fertilized during spawning. Other threats include, habitat destruction, coral breakage from divers, siltation from construction, runoff from logging and agriculture, dredging, sewage, oil spills and other contaminants that harm coral reefs where Nassau Groupers live.

CONSERVATION

There are a number of measures that can be taken to protect and manage the Nassau grouper:

- Establish Marine parks and Reserves where the fishing of grouper is prohibited.
- Establish a minimum harvestable size limit and enforce the minimum legal size for a grouper which is 3 pounds.
- Protect spawning aggregation sites - because of fishing at these sites, groupers are susceptible to overfishing.
- Develop alternative fishing strategies: encourage fishermen to catch other species of fish.
- Support the Closed Season for Grouper during the designated dates (December - February).

