



## Giant Grouper *Epinephelus lanceolatus*

### Range/Habitat

- Occurs in the Indo-Pacific from the Red Sea to Algoa Bay, South Africa through the Hawaiian and Pitcairn islands and south to Australia.
- Found in tropical shallow reefs, caves, wrecks and estuaries commonly to 164 feet (50 m) deep. Full depth range is 13-328 feet (4-100 m).

### Physical Characteristics

- Size
  - Largest of all coral reef-dwelling bony fish
  - Common length up to 8 feet (2.5 m) and maximum weight of 660 lbs. (300 kg).
  - One of the largest recorded was 9.8 feet (3 m) and weighed more than 882 lbs. (400 kg).
- Color
  - Juvenile giant grouper are bright yellow with large, irregular black or dark brown bars
  - As adult, irregular patterns break up and their coloring becomes a muted, mottled olive-gray.
- Body Composition
  - Has a very large mouth that expands and protrudes to create a strong suction to draw in prey.
  - Mouth has at least seven rows of teeth on the middle of the lower jaw.
  - The giant grouper's eyes function effectively in dim light, which gives it an advantage over its prey during dawn and dusk feeding times.
  - Eyes also rotate so grouper can see approaching prey without moving its head.

### Diet/Feeding

- Diet
  - Consists of fish, sharks, juvenile sea turtles and crustaceans, including spiny lobster and mud crabs.
- Feeding Behaviors
  - Ambush predator that lies in wait while hiding in holes, crevices and reef overhangs.
  - Swallows food whole.
  - Occupies the upper end of the food chain:
    - Few reside in each area; few found on any one reef.
    - Replacing older fish with a young individual takes many years.

### Conservation Status

- "Vulnerable" on the IUCN Red List.
  - Population thought to be declining 20 percent rate every ten years.
- Populations of this species have been drastically reduced worldwide due to overfishing.

### Additional Information

- Slow-growing and lives up to more than 50 years.



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- Protogynous hermaphrodite; starts out life as female and later changes gender to become male.
- Does not reach sexual maturity until it is about 20 years old. Fishing usually removes the largest, and therefore oldest, fish first.
- Other common names for this species are “Queensland grouper” and “brindle bass”.

#### Sources

*Encyclopedia of Fishes*. 2<sup>nd</sup> Edition, pgs. 195 -199

*Fishes of the Great Barrier Reef*. Randall, J. E., pg. 109

*Fishes of the Tropical Eastern Pacific*. Allen, G. R., pg. 106

*Reef Fish*. Thresher, R. E., pgs. 153 -155

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