



Photo credit: US Geological Survey

KEY INFORMATION

Areas of Concern

Western Atlantic: south Atlantic and Gulf of Mexico.

Year Identified as “Species of Concern”
1997

Factors for Decline

- Fishing
- Bycatch

Conservation Designations

IUCN: Critically Endangered
American Fisheries Society: Endangered

Demographic and Genetic Diversity Concerns:

Population size is believed to have declined sharply in the late 1980s since there was a decline in landings in the absence of any regulations or decreasing fishing effort (Figure 1) as well as decreases in the mean weight and length.

Existing Protections and Conservation Actions:

Both recreational and commercial fisheries for warsaw grouper are currently regulated in the South Atlantic with a one fish per vessel trip limit. For the South Atlantic, the National Marine Fisheries Service (NMFS) classifies warsaw grouper as undergoing **overfishing** but the **overfished** status is unknown. In the Gulf of Mexico, there is a one fish per vessel trip limit for the recreational sector and possession limits for the species for federally permitted commercial reef fish vessels are managed under the Deep-water grouper commercial trip limit and quota. NMFS classifies the overfishing status of warsaw grouper as “unknown” and overfished status as “undefined”.

Factors for Decline:

The major threat to the warsaw grouper is mortality from fishing or **bycatch** release mortality (due to barotraumas – pressure change). Fishing is primarily by hook and line and the species is caught incidentally in the deepwater snapper/grouper commercial fishery. Most landings are from the Gulf of

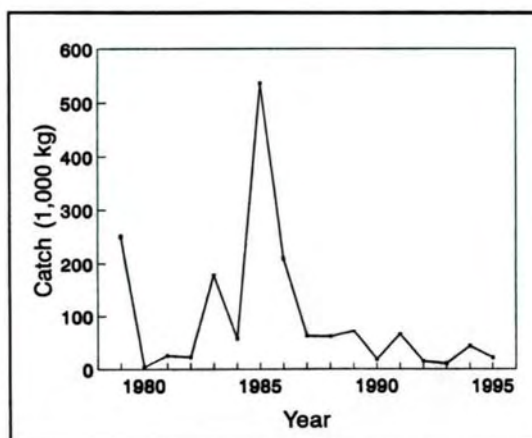


Species of Concern

NOAA National Marine Fisheries Service

Mexico. Landings of warsaw grouper landings declined 72 percent decline by weight, and a 71 percent decline by numbers from 1988 to 1990 in the South Atlantic (Parker and Mays 1998). In addition, the mean weight of warsaw grouper landed during 1988 to 1990 (15 pounds) was below the minimum weight of an adult warsaw grouper (Timi Jordan, NMFS, personal communication). Despite the regulations put in place in the 1990s, there is concern that mortality of warsaw grouper has remained high and overfishing is still occurring due incidental catch of warsaw grouper when fishermen targeting co-occurring snapper grouper species.

Figure 1. Warsaw grouper catch (kg), all fisheries combined (Parker and Mays 1998).



Brief Species Description:

Warsaw grouper are classified as deep-water groupers since they inhabit reefs on the continental shelf break in waters 180 to 1700 feet (55 to 525 m) deep. They are characterized by an elongated second spine in the dorsal fin, the rear margin of the caudal fin is convex or truncate with rounded corners, and their pelvic fins are longer than the pectoral fins. They are the only grouper with 10 dorsal spines. They are dark reddish brown or brownish grey to almost black in color dorsally, dull reddish grey below. Juveniles have a yellow caudal fin and a few randomly scattered whitish spots on body. Adults are usually found on rough, rocky bottoms; juveniles are occasionally seen on jetties and shallow-water reefs. Very little information is available about the reproduction of the warsaw grouper; eggs and larvae are presumed to be **pelagic**. *E. nigrilus* is a protogynous hermaphrodite (changes sex from female to male); age of maturity occurs at 9 years (Parker and Mays 1998). They spawn during August through September in the Gulf of Mexico (SAFMC 2005). The warsaw grouper is long-lived (up to 41 years) and has a slow growth rate (Mannoch and Mason 1987). Maximum size is about 7.7 feet (235 cm) TL and about 440 pounds (200 kg). Their large mouth enables them to engulf prey whole after capturing it in ambush or after a short chase. Diet items include crabs, shrimps, and fishes.

Contact Information

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References:

- Manooch, C.S., III and D.L. Mason. 1987. Northeast Gulf Science 9:65-75.
- Parker, R.O., Jr. and R.W. Mays. 1998. NOAA Technical Report NMFS 138.
- SAFMC (South Atlantic Fishery Amangement Council). 2005. Stock Assessment and Fishery Evaluation report for the snapper grouper fishery of the south Atlantic.