

AFS Policy Statement #31c:  
Long-lived Reef Fishes: The Grouper-Snapper Complex  
(Abbreviated)

**POLICY**

The American Fisheries Society (AFS) recognizes that reef fishes must be conservatively managed to avoid rapid overfishing and stock collapse because reef fish communities comprise slow-growing, late maturing fishes such as groupers and snappers. Therefore, the AFS recommends that for such species, fishing mortality should be maintained at or near natural mortality. In addition, AFS cautions that an imbalance in the normal sex ratio may occur rapidly during harvesting of many reef fishes, thus leading to stock collapse because many reef fish species mature first as female but then become male later in life; most of the older, larger individuals in the population are male. Thus, conventional management modeling tools such as Spawner Biomass Per Recruit may lead to overly optimistic conclusions and should be used with caution. Many reef fish species form predictable, localized, seasonal spawning aggregations that are very vulnerable to overharvesting. Such aggregations should be protected.

The AFS supports the establishment of networks of large Marine Protected Areas and the development of individual transferable quotas, along with more conventional management measures to help maintain and restore reef fish populations and their habitats. The AFS encourages its members to become involved by providing technical information needed for protection of long-lived reef fishes to international, federal, state, and provincial policy makers so decisions are made on a scientific, rather than emotional or political, basis.

**Issue definition**

The status of most reef fish stocks is unknown in the southeastern United States and Mexico (Atlantic, Gulf of Mexico and Gulf of California). Stock information is available for only 22 out of 73 reef fish species off the U.S. in the Atlantic and 5 out of 55 species in the Gulf of Mexico (NMFS 1997; SAFMC 1999). Virtually nothing is known about the status of reef fish stocks in the Gulf of California, except that at least four species of grouper have been recognized to be threatened. Unfortunately, this lack of information is often interpreted as absence of a problem. Only five of those species for which the status is known are considered healthy stocks. Some of the larger, long-lived species have been widely extirpated by overfishing and considered to be at risk of extinction. Clearly, changes in fisheries management are needed that invoke a new ethic in fishing practices and incorporate effective conservation while maintaining the health and viability of marine ecosystems.