

AFS Policy Statement #31b:
Management of Sharks and Their Relatives (Elasmobranchii)
(Abbreviated)

POLICY

The American Fisheries Society (AFS) recommends that regulatory agencies give shark and ray management high priority because of the naturally slow population growth inherent to most sharks and rays, and their resulting vulnerability to overfishing and stock collapse. Fisheries managers should be particularly sensitive to the vulnerability of less productive species of sharks and rays taken as a bycatch in mixed-species fisheries. The AFS encourages the development and implementation of management plans for sharks and rays in North America. Management practices including regulations, international agreements and treaties should err on the side of the health of the resource rather than short-term economic gain. The AFS encourages the release of sharks and rays taken as bycatch in a survivable condition. Regulatory agencies should mandate full utilization of shark carcasses and prohibit the wasteful practice of finning. Multilateral agreements among fishing nations or management through regional fisheries management organizations are sorely needed for effective management of wide ranging shark stocks. The AFS encourages its members to become involved by providing technical information needed for protection of sharks and rays to international, federal, state, and provincial policy makers so decisions are made on a scientific, rather than emotional or political, basis.

Issue statement

Sharks and their relatives, the rays (subclass Elasmobranchii), are a group of about 1,000 species of mostly marine fishes. Most sharks and rays that have been studied have slow growth and late maturity, and very low egg production or fecundity compared to bony fishes. These attributes result in very low intrinsic rates of increase and very low resilience to fishing mortality. Because of their low population resilience, most shark and ray populations can only withstand modest levels of fishing without depletion and stock collapse. Most sharks and ray populations decline more rapidly and are not able to respond or compensate as strongly or as quickly as other fishes to population reduction by fisheries. Thus management must be implemented at the inception of shark fisheries. This has not been the case for the vast majority of shark fisheries that have developed around the world. Rather, the overwhelming pattern has been one of no management, rapid stock decline and collapse, with decades to recovery if recovery occurs at all.

Although many sharks and rays have been of lower economic value in fisheries, the economic impact of stock collapse may be similar to more productive species because the population recovery time and economic loss lasts much longer. The greatest threats to sharks and rays may be from mixed-species fisheries where the sharks and rays with lower intrinsic rates of increase may be fished to collapse or extirpation while the more productive fishes continue to drive the fisheries. Because most sharks and rays (particularly the larger, most vulnerable species) are migratory, effective management will require integrated U.S. management plans involving both state and federal waters, as well as bilateral or multi-lateral international agreements.