

2.0 SUMMARY OF THE SWORDFISH PLAN

Fishing methods. Swordfish are caught by (1) longlines, (2) harpoon, (3) drift entanglement nets and (4) rod and reel, and incidentally caught by (5) foreign tuna longlines and (6) foreign squid trawls. Reported domestic landings (1983) were 9.3 million pounds (8.7 million by longlines, 0.6 million by harpoon). The sport rod and reel fishery increased in the late seventies but is now very small. Total foreign longline swordfish bycatch in the FCZ has decreased from the 1980 level (8,075) to approximately 402 fish in 1984. Total foreign trawl swordfish bycatch was approximately 176,000 pounds in 1982 and decreased to approximately 86,000 pounds in 1983.

Fishery status. The fishery is in or near a state of growth overfishing. This is known from an established scientific technique that monitors the fishery by age characteristics of the stock (yield-per-recruit analysis). Optimum yield is defined in terms of not exceeding the harvest of a maximum number of small fish.

If the increasing harvest of small fish is not restricted, further growth overfishing will occur. This will reduce total landings and will also reduce total revenue to the industry because the changing age structure of the stock will produce fewer large fish which have a higher value per pound. Even without growth overfishing there are economic and biological advantages to delaying the harvest of small fish until they are larger.

Optimum yield. Optimum yield is defined as the harvest that results when no more than the estimated 33,750 swordfish under 50 pounds dressed weight are harvested (1980 level). In 1983 an estimated 39,718 swordfish under 50 pounds dressed weight were caught. Optimum yield measured in numbers of small swordfish may be revised by amending the regulations when better scientific information becomes available.

Regulating U.S. fishing. Domestic landings of small swordfish are controlled by a variable season closure (VSC). The VSC closes fishing months with the highest concentrations of small fish relative to total catch in each area. The length of the closures in each area are based on the percentages of small fish caught in each area.

The VSC is actually a "back drop" measure to control the harvest of small fish if other more preferred methods such as the voluntary reduction in the catch of small fish or a minimum size limit are not effective. The computation of the VSC is such that if for whatever reason the catch in numbers of small fish is expected to be below the optimum yield number of small fish then there is no closure. The lengths of the closures in each area are adjusted annually based on the catch of small fish. It is possible to have combinations of voluntary actions by fishermen, a minimum size limit, and adjusted closures to reduce the catch of small swordfish.

Projected 1985 closures. The following are projections of closures in 1985 based on 1983 data. These projections will be revised after March 15, 1985 to incorporate 1984 data.

North of Cape Hatteras: Begin
November 6, 1985 for 24 days

Cape Hatteras - Georgia/Florida: Begin
October 15, 1985 for 47 days

Georgia/Florida - Gulf of Mexico: Begin
November 1, 1985 for 60 days

Gulf of Mexico - Texas/Mexico: Begin
November 1, 1985 for 37 days

Puerto Rico and U.S. Virgin Islands: Begin
November 1, 1985 for 60 days

The plan requires that the previous year's data and analysis be updated by March 15 of the following year. The latest update before the first closure (October/November 1985) will be by March 15, 1985 and the lengths of the closures for 1985 will be based on that update. The closures could be longer or shorter than what has been predicted, depending on whether more or less small fish (under 50 pounds dressed weight) were caught in 1984 than 1983 and whether there is new evidence that a minimum size limit or other action will effectively curtail the catch of small fish. The computation of the VSC automatically takes into account any other action that reduces the catch of small fish such that there may not be a closure.

Prohibitions and exemptions. All swordfish caught for sale must be landed whole or as carcasses. In a closed area: fishing for swordfish by other than exempt gear is prohibited; the possession of swordfish shoreward of the outer boundary of the FCZ is prohibited; the landing of swordfish taken by other than exempt gear is prohibited. The importation of any swordfish taken from the western North Atlantic is prohibited during a closure. No longlining or netting is allowed at night in a closed area. No vessel with longlines or nets can possess swordfish in a closed area. Daylight longlining for species other than swordfish can continue in closed areas but the swordfish bycatch must be released.

Harpoon gear is exempt from the closure if the closure occurs between June and October. Minimum size for harpooned swordfish during any closure is 125 pounds dressed weight. Monthly harpoon landings are restricted to their historical (1973-83) levels during closures. The traditional handline fishery in the Caribbean is allowed an incidental catch limit of 1 swordfish per trip during their closure. Fish caught by the traditional handline fishery in the Caribbean may be sold. Rod and reel gear is exempt from the closure but the fish cannot be sold.

Regulating foreign fishing. Swordfish measures in the preliminary fishery management plan for billfish and sharks (1978) and amendments to that plan (1982 and 1983) with some modifications are adopted into this plan. These include the provision that no swordfish may be retained and seasonal closures to avoid gear conflicts. In addition, the foreign bycatch of swordfish while tuna longlining or squid trawling is restricted. The quota (number of fish hooked) for the foreign longline swordfish bycatch is 1,136 fish in the Atlantic and Caribbean and 400 fish in the Gulf of Mexico. The foreign squid trawl bycatch is limited to the 1982 ratio of swordfish to

target catch in the foreign squid trawls in the New England and Mid-Atlantic regions (number swordfish/metric tons of squid). Any restrictions that apply to U.S. fishermen also apply to equivalent foreign fishing such as the VSC and daytime fishing restriction for longlines.

Statistical reporting. All boats must obtain a permit to retain swordfish for sale. The fishery is primarily monitored with data collected by technicians aboard a sample number of U.S. commercial swordfishing boats randomly selected to participate in the data collection program. Participation is mandatory for vessels selected. Reporting of landings by individual carcass weight is mandatory for vessels retaining swordfish for sale landed in Puerto Rico or the U.S. Virgin Islands.

Other species and coastal zone consistency. The Section 7 Consultation was initiated, a biological assessment prepared and submitted. The biological assessment was reviewed and it was concluded that the proposed management measures would not affect endangered/threatened species. The FMP and coastal zone consistency determination have been sent to individual states for CZM consistency.

Comments requested by: