



POSITION PAPER

2016

MEDITERRANEAN SWORDFISH

WWF Recommendations to improve the state of the stock

WWF is calling for a recovery action plan to be put in place immediately to bring the swordfish stock in the Mediterranean back to sustainable levels. Three decades of overfishing and mismanagement are threatening the future of this highly migratory and iconic species in the Mediterranean Sea.

The action plan should:

- Guarantee recovery of the stock to levels that can deliver MSY by 2020
- Be based on scientific advice and deliver an ecosystem-based management approach
- Establish a Total Allowable Catch limit that reduces fishing mortality
- Limit the use of certain fishing gears and include provisions for gear modifications to allow the protection of juveniles and reduce unwanted catches
- Review the minimum conservation reference size according to the best scientific advice
- Include measures to enhance monitoring, control and surveillance in order to prevent illegal catches.

BACKGROUND

Mediterranean swordfish is a highly valuable species for many countries in the Mediterranean. Since the 1970s there has been an increase in reported catches, reaching a peak in 1988 (20,365t). Until 2011 reported catches of swordfish in the Mediterranean fluctuated between 12,000 and 16,000t. Based on the available information, catches in 2015 amounted to 9,966t.

The countries with the largest reported catches between 2003-2015 were Italy (45%), Morocco (14%), Spain (13%), Greece (10%) and Tunisia (7%). Algeria, Cyprus, Malta and Turkey also have fisheries targeting swordfish in the Mediterranean. Albania, Croatia, France, Portugal, Japan, Libya and Syria have reported incidental catches of swordfish to ICCAT¹.

Following the ban on the use of drift nets for highly migratory species in 2003, drifting longlines have predominantly been used to catch swordfish in the Mediterranean (on average, representing 84% of the annual catch). Despite the ban, there is still concern about the ongoing illegal use of drift nets in some countries.

Harpoons and traps are also used to catch swordfish. Swordfish are also by-catch in other fisheries where techniques are not selective enough (longlines targeting albacore, purse seines) and do not distinguish between adult and juvenile fish. Young swordfish up to 5kg are often caught between October and December, mainly as a by-catch of albacore.

FURTHER INFORMATION

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¹ Report of the 2016 ICCAT Mediterranean swordfish stock assessment meeting (Casablanca, Morocco, July 11-16, 2016).

Mediterranean swordfish stock has been assessed as overfished.

In July 2016 the ICCAT working group on Mediterranean swordfish carried out a stock assessment for this species. The assessment confirms that the stock is overfished and has suffered overfishing for the last three decades. Very few measures have been put in place, and there is currently no plan for the sustainable management of this stock. Too many immature fish are caught, with the greatest mortality suffered by fish aged 3 years or less, which currently represent about 70% of current catches. This has resulted in declining recruitment over the last 15 years.

Swordfish stock spawning biomass (SSB) is about 90% lower than the levels considered to be safe to maintain the stock. Specifically, SSB in 2015 was less than 15% of BMSY, while fishing mortality is almost twice the estimated FMSY.

Based on the results of the stock assessment and the ICCAT objectives, management advice requires rebuilding of the stock and a substantial reduction in fishing mortality.

Despite actions already undertaken, no recovery plans have been implemented, and there is considerable concern about the sustainability of Mediterranean swordfish fisheries. Of particular concern are the high fishing mortality rate of juveniles and the adoption of an inaccurate Minimum Conservation Reference Size, which does not correspond to the scientifically-recognized size at first maturity.

WWF believes that a recovery plan for Mediterranean swordfish should be put in place immediately. The new management framework for the rebuilding of the stock to MSY levels by 2020 should:

1. Ban the use of all drifting longlines from 1 October to the end of February

Adult swordfish are found in spawning grounds throughout the year, except in January and February. Spawning in the Mediterranean is most intensive from the end of June to August. Eggs of this species are found from June to September, and young swordfish up to 5kg are often caught from October to December². To mitigate the impact of fisheries on juveniles, the use of all drifting longlines must be prohibited in the Mediterranean from 1 October to the end of February.

2. Establish a Total Allowable Catch (TAC) limit

The swordfish recovery plan needs to include measures for a substantial reduction in catches to ensure the reduction of fishing mortality and the increase of the spawning stock biomass, to drive the stock to MSY levels by 2020. Catch limits should be put in place for all fishing segments and agreed upon each year according to the best scientific advice.

By-catch should be limited to 5% of the TAC for those vessels catching Mediterranean swordfish as by-catch of other pelagic species.

Fishing opportunities should be allocated using transparent and objective criteria, including those of an environmental, social and economic nature; they should also endeavor to fairly distribute national catch limits between the various fleet segments, including traditional and small-scale fisheries, and to provide incentives to fishing vessels deploying selective fishing gear or using fishing techniques with reduced environmental impact.

² ICCAT Manual - Chapter 2.1.9 SWO

3. Fight illegal, unreported and unregulated (IUU) fishing

The management framework should include measures to enhance monitoring, control and surveillance to prevent illegal catches.

Illegal fishing should be discouraged with the introduction of a Vessel Monitoring System on board all fishing vessels, and a mandatory requirement for all vessels to report their catch to the competent authority immediately upon landing.

To ensure the full traceability of swordfish, the captains of all vessels authorized to catch Mediterranean swordfish – including sport and recreational vessels – as a minimum requirement, must maintain a fishing logbook reporting their operations and catches. Contracting Parties, and Cooperating non-Contracting Parties, Entities or Fishing Entities (CPCs) should also ensure that all vessels adopt an electronic catch documentation system.

4. Review the Minimum Conservation Reference Size

Minimum Conservation Reference Size for swordfish is now set at 90cm LJFL (Lower Jaw Fork Length), according to ICCAT Recommendation 13-04. This size does not correspond to the initial sexual maturity size for females (142cm LJFL indicated by ICCAT's Standing Committee on Research and Statistics)³.

To ensure appropriate levels of recruitment, the SCRS should review the Minimum Conservation Reference Size based on sexual maturity of swordfish in the Mediterranean, according to the best scientific advice available.

5. Explore the use of circle hooks for drifting longlines to reduce unwanted catches

It is well-documented⁴ that the use of circle hooks reduces the by-catch of endangered species such as sea turtles by 30% in long-line fisheries without significantly impacting the Catch Per Unit Effort for target species. Several studies suggest that the use of circle hooks results in lower mortality rates of target and non-target species, as these hooks often lodge in the fish in places other than the deep jaw or gut, enabling undersized or unwanted specimens to be released alive.

The use of circle hooks for longliners should be further explored and encouraged, taking into account the results of various Mediterranean projects concerning undersized and unwanted catches (MINOUW, Del.Ta., TartaNet, Sharklife, Circle hook, TartaLife)⁵.

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³ ICCAT Manual - Chapter 2.1.9 SWO

⁴ Piovano et al. 2008; D.W. Kerstetter, J.E. Graves, 2006

⁵ See <http://minouw.icm.csic.es/>; http://www.ismar.cnr.it/progetti/progetti-internazionali/progetti-conclusi/progetto-tartanet-1?set_language=it&cl=it and <http://www.sharklife.it/il-progetto>; <http://www.tartalife.eu/en>