

NARRATIVE/RATIONALE

Increase score of the Performance Indicator 2.3.1 ETP species Outcome.

It applies for SWO-N, SWO-S, BSH-N and BSH-S

Scored at 60-79, FIPBlues considers that this PI scores now at **SG ≥ 80**.

This is based on the evidence provided by FIPBlues in 2023 (and species report in 2022): updated data of species composition from DEA, from Observers program, from ICCAT studies/papers, from other related sources, regulatory advances, the good practices in place, etc.

RATIONALE

Nowadays there are much more and new relevant information base for the outcome and management of the ETP species. The following items are considered to have great impact on the score for this PI as they provide data on ETPs and species-related information. Besides, other related sources with relevant information and data on the ETPs of the fishery are provided.

> **Species Composition reports:**

-Catch Composition (2018-2022), an approach to species interacting with the fishery. Source: DEA (in Annual Report 2022). See Annex I Summary-Conclusions.

-Catch composition. Review of 2023 data (January-October 2023). Source: DEA.

(Both reports analysed data from the DEA -vessels' electronic logbook- of species interacting with the fishery and representativeness over the total catch).

-Catch composition (2020-2022). Review from data of the Observers Program.

(Analysis of data from the Observers Program). See Annex II Summary-Conclusions.

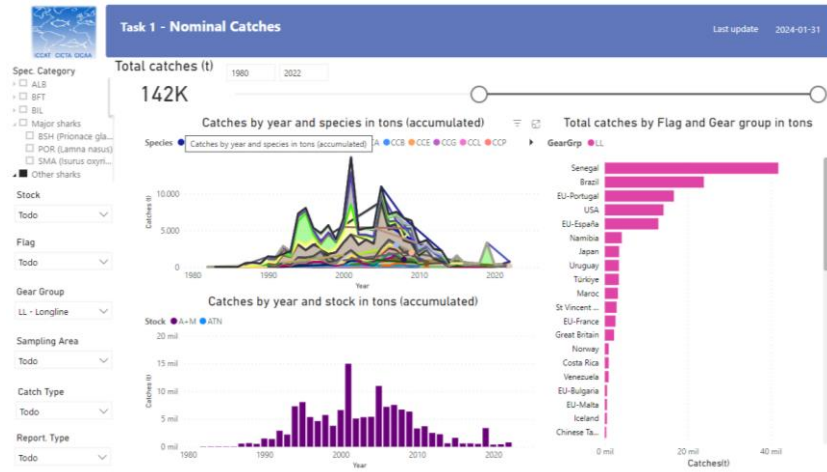
These reports have generated a relevant amount of updated and complete data showing the species interacting with the FIP vessels. Therefore, it allows the subsequent analysis on the evolution of target, primary and ETP species interacting with the fishery. We have created a unified big data base (Excel pivot) that summarizes the information contained in lots of files and thousands of data to a simple but extremely useful tool to monitor the species recorded in the DEA and their evolution on the fishery catches.

> [ICCAT statistical databases](#) with complete and updated information on different species of sharks (ETPs). Click on the hyperlink and then click the "VOI. 80 2023" file. It contains papers or SCR studies on the species, including sharks, turtles and marine mammals.

> "[Data Task 1 Excel- Dashboard](#)", an Excel pivot table to combine parameters in order to obtain nominal catches of different species of sharks by gear, region and flag [2024-01-31] that allow users to review and visualize the available data in a useful and clear way, as shown below in the illustration, with catch information on "major" and "other" sharks by flag and gear. Example:

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- Spec. Category
- ALB
 - BFT
 - BIL
 - Major sharks
 - BSH (Prionace glauca)
 - POR (Lamna nasus)
 - SMA (Isurus oxyrinchus)
 - Other sharks
 - AGN (Squatina squatina)
 - ALS (Carcharhinus albigmarginatus)
 - ALV (Alopias vulpinus)
 - API (Aristurus spp)
 - ASK (Squatinae)
 - BLR (Carcharhinus melanopterus)
 - BRO (Carcharhinus brachyurus)
 - BSK (Cetorhinus maximus)
 - BTH (Alopias superciliosus)
 - CCA (Carcharhinus altimus)
 - CCB (Carcharhinus brevipinna)
 - CCE (Carcharhinus leucas)
 - CCG (Carcharhinus galapagensis)
 - CCL (Carcharhinus limbatus)
 - CCN (Carcharhinus acronotus)
 - CCD (Carcharhinus isodon)
 - CCP (Carcharhinus plumbeus)
 - CCR (Carcharhinus porosus)
 - CCS (Carcharhinus signatus)
 - CCT (Carcharias taurus)
 - CFB (Centroscyllium fabricii)
 - CPL (Centrophorus lusitanicus)
 - CTK (Mustelus henle)
 - CWO (Centrophorus spp)
 - CXX (Coastal Sharks nei)



> **Observation Coverage in 2023:**

FIP Blues is currently keeping the effort to maintain the observation coverage through on board observers plus Electronic Observation. The Observer Program for 2023 was assigned by the SGP targeting a 6% of coverage. Definitive data for 2023 pending of SGP official review, but it is expected to be around 6% of coverage.

2022	Fishing Days	Observation Days Allocated	Observed Days	% Observation Coverage
OPNAPA	3.078	314	317	10,30
OPROMAR	880	58	Assumed by ORPAGU	
OPP BURELA	3.520	197	156	4,43
ORPAGU	5.056	410	270	5,34
Global Data	Fishing Days	Observation Days Allocated	Observed Days	% Observation
For the 4 OPPS together	12.534	979	743	5,93

> **Improvement of recording on the DEA** (electronic logbook) -updates in 2022 and 2023- that requires recording the location and other details of interactions occurred with protected sharks, birds, turtles and marine mammals (new [version of the DEA](#) (v4 2.0.0) and a new functionality (“alive or dead”) for discards state as of three shark species (SMA, BSH and THR): see page 25 of the [Manual cumplimentación DEA](#)). It was installed mainly during the second semester of 2023.

More info in “New update of the DEA (e-Log-Book). New version that includes a new mandatory field to record status “Alive/Dead” for certain species”, within the “ANNUAL REPORT 2023. ACTION 2. (Sub) Report of activities developed during the Second semester), in files section for Action 2).

> **“DEA ampliado”**: Internal practice for captains to fill in optional fields in the e-logbook (Nº individuals, total weight, and -in a near future- fate of discards) is being implemented.

> **Orden AAA/658/2014, de 22 de abril, por la que se regula la pesca con el arte de palangre de superficie para la captura de especies altamente migratorias (modified by Orden APM/1057/2017,).** It is the main Spanish normative for Long Line vessels operating in international waters. In page 15, Annex I, the list of prohibited shark species is indicated. It also sets the obligation for birds and turtles interaction mitigation techniques, depending on the fishing area (page 19). And the **Permiso Temporal de Pesca** (“Temporal fishing licence” is provided annually by the Spanish Fisheries Department to vessels), a document establishing, among others, the list of prohibited shark species and the due record of data in case of interaction).

> **Orden ARM/2689/2009, de 28 de septiembre:** prohibition of catching of Alopiidae and Sphyrnidae sharks.

> **The “National Plan for the Reduction of By-catch by the fishing industry” (Spain)** aims at reducing the impact or ensuring it does not harm or endanger the populations of sensible fauna by 2030. The plan includes an approach

to interaction of some ETP species (marine mammal, birds, turtles, sharks) that enrich our own knowledge. FIPBLUES joined the plan late 2023, as a stakeholder for international waters. It summarizes the information available in relation to the status of protected species and the impact of the different fisheries.

> **No Incidental Catch of Marine Birds.** The incidental catch of birds is rather sporadic.

-**Observations on interaction between seabirds and the Spanish surface longline fishery targeting swordfish in the Atlantic Ocean during the period 1993-2017.** [SCRS/2018/085](#) . Collect. Vol. Sci. Pap. ICCAT, 75(2): 345-356 (2018): the interaction of the surface long line of the Spanish fleet in Atlantic waters had practically no problems of accidental catch of seabirds. In 25 years of observation on board, from 1993 to 2017, with more than 7.6 Millions of hooks targeting swordfish, with night haul (mandatory for this fleet since 2014) there were only 39 interactions (hooked), most of them in operations south of the 25°S parallel in an experimental trip that did not reflect the normal operation of the fleet.

-In [Report of the 2018 ICCAT Sub-Committee on Ecosystems Meeting](#) (page 12, 5.2) it was noted that few seabirds were captured and that a large proportion of the total mortality was from a single trip in the south-western Atlantic. The authors explained that the fishing activity of the Spanish fleet is low in the areas of high seabird density. In addition, the Spanish fleet sets at night targeting swordfish, and use the minimum deck light during longline setting operations.

-Our data from “Catch Composition” reports are in line with those results.

> **No Incidental Catch of Marine Mammals.** From “[Results of a short study of interactions of cetaceans and longline fisheries in Atlantic waters. Environmental correlates of catches and depredation events](#)”. The incidental catch of cetaceans is rather sporadic. There is no incidental catches but some interaction with the gear for predation of fish hooked. Study in 2006 and 2007 on board of 8 vessels and 635 hauls found that only between 1-9% of the hauls were affected with 0.2% and 8.6% of catch losses. They had only a case of bycatch of two “false killer whales”.

-Our data from “Catch Composition” reports are in line with those results.

>**Information on Incidental Catch of Marine turtles.**

- [National Plan for the Reduction of By-catch by the fishing industry](#)” (Spain), page 84.

Observation of 544,982 hooks in 10 years (between 1997-2012): 438 turtles of five species were caught during this period. This makes a very low rate of interaction or incidence of 0.8 turtles/1,000 hooks, with a mortality of 11.4%, while the rest were released alive.

-[Marine turtle encounters in the surface longline fishery in North Atlantic areas](#):

This paper describes encounters of five species of marine turtles (*C. caretta*, *D. coriacea*, *L. olivacea*, *L. kempii*, *C. mydas*) observed during surface longline fishery in North Atlantic areas (10°-30° N / 15°-35° W) in the 1997-2012 period. A total of 544,982 hooks were analyzed; 7.5% came from an experimental cruise which had purposely selected this zone to test the effect of different hook and bait types on by-catch rates of marine turtles. The remainder observations were obtained during routine commercial fishing operations. A total of 438 encounters with marine turtles were recorded over the course of these years, either because the animals bit the bait-hook or because they became entangled in the branch lines. Of these, 89% were released alive. The interaction and mortality rates for species, areas and years combined were 8.0e-04 and 9.0e-05 individuals per hook, respectively. These rates were, however, lower when only recordings from regular commercial fishing were considered. It should not be assumed that the resulting rates are representative of or can be extrapolated to other fishing. Our data from “Catch Composition” reports shows even a lower interaction rate.

> **There is a specific “Shark Research and Data Collection Programme (SRDCP)** since 2014:

- *to improve shark data collection and research which represents a further step to align with ICCAT Res. 11-17 on Best Available Science, to fill knowledge gaps on fisheries and biology issues by improving data collection, cooperation and capacity building. In order to achieve these goals, the SRDCP aims to provide guidance to SCRS researchers, by prioritizing those issues related to data collection and research lines on species biology/ecology, fisheries and mitigation measures. SRDCP aims to improve the quality and reduce the uncertainty of the scientific advice on sharks provided to the Commission, and to better assess the impact of management measures on these species.*

-**Workshop on the shark research and data collection program (SRDCP) SCRS/2023/179.**

(All the information on the program at [COLLECTIVE VOLUME OF SCIENTIFIC PAPERS](#) , in “Vol. 80, 2023”, and then clicking in “[Vol. 80 No. 4, Sharks](#)”, the Report SCRS/2023/179), with the results obtained and the ongoing activities.

-**Report of the ICCAT Shark Research and Data Collection Programme (SRDCP)** (Appendix 8, at page 516 of the [SRCS Report](#)) covering different studies on biology and spatial ecology of different shark species (short fin mako, porbeagle silky, oceanic whitetip, longfin mako, hammerheads, bigeye thresher and blue sharks)

-**Tagging campaigns** are being implemented by national research centres in the framework of this SRCD to gain more ecological knowledge of shark species (see Table 1. List of ICCAT tags deployed and to be deployed by species, at page 520 of the [SRCS Report](#)). Vessels from FIPBLUES have been collaborating from long with the IEO, as explained in the report “Collaboration with the IEO-Coruña (Spanish Oceanographic Institute) in fish tagging program” (see “SIX-MONTH PROGRESS REPORT (December 2022-May 2023)” in files section for Action 2).

>**Shark Implementation Check Sheet** sent to ICCAT (by the Spanish SGP) related to measures adopted by the fleet to minimize the unwanted catches. CPCs shall include information in their Annual Reports on actions taken to implement their reporting obligations for all ICCAT fisheries, including shark species caught in association with ICCAT fisheries, in particular the steps taken to improve their Task 1 and Task 2 data collection for direct and incidental catches

- Movement of the fleet to avoid areas with high concentration of specimens of this species.

- Safe handling and release of alive sharks (<https://fipblues.com/en/fip-documents>).

- Shark Implementation Check Sheet_Spain

(See (Sub)Report of activities developed during the Second semester, IN “ANNUAL REPORT 2023. ACTION 4”, in files section for Action 4, and Annex 3_Shark Implementation Check Sheet_Spain).

EU Member States shall submit to the Commission their shark implementation check sheets to ICCAT. Recommendation 18-06, including information on the actions they have taken domestically to monitor catches and to conserve and manage sharks.

https://www.europarl.europa.eu/doceo/document/TA-9-2024-0061_EN.html

>**Handbooks of good practices for safe handling and release of sharks and turtles on board**, including species identification guides for both sharks and turtles include protected species, are being implemented if there is an interaction of those and other ETPs. See handbooks in document file.

> **Shark Implementation Check Sheet sent to ICCAT** (from the Spanish SGP): indicating the measures adopted by the fleet to minimize the unwanted catches (FIP BLUES). CPCs shall include information in their Annual Reports on actions taken to implement their reporting obligations for all ICCAT fisheries, including shark species caught in association with ICCAT fisheries, in particular the steps taken to improve their Task 1 and Task 2 data collection for direct and incidental catches.

https://www.europarl.europa.eu/doceo/document/TA-9-2024-0061_EN.html

> **Recommendation for turtles** along with increasing focus from ICCAT on their state.

[22-12] Recommendation by ICCAT on the **bycatch of sea turtles** caught in association with ICCAT fisheries (combine, streamline, and amend Recommendations 10-09 and 13-11).

>**ICCAT is making progress to enhance an ecosystem approach of the fisheries** as ratified in the recent [28th Regular Meeting of the Commission](#) (new protection measures for cetaceans, whale sharks and mobulid rays, new conservation and management measures for blue shark, swordfish and albacore, and set minimum standards for the optional implementation of Electronic Monitoring Systems)

- Key decisions on the matter were adopted, whereby ICCAT adopted three new protection measures for cetaceans, whale sharks and mobulid rays caught in the Convention area in association with ICCAT fisheries, which prohibit these species being retained on board, transhipped, or landed, in whole or in part (<https://www.iccat.int/com2023/index.htm#en>).

-Over the last years, ICCAT has increased the number and type of measures, regulations and instruments to enhance biodiversity conservation under the principles of the ecosystem approach to fisheries management, as proved by existing recommendations on the matter: Resolution by ICCAT on the implementation of biodiversity conservation instruments; Resolution by ICCAT on cetaceans encirclement, Recommendation by ICCAT for the conservation of **whale sharks** (*Rhincodon typus*) caught in association with ICCAT fisheries, Recommendation by ICCAT on **mobulid rays** (family Mobulidae) caught in association with ICCAT fisheries, Supplemental Recommendation by ICCAT amending Recommendation 22-12 on the bycatch of **sea turtles** caught in association with ICCAT fisheries.

-ICCAT agreed new protection measures for cetaceans, whale sharks and mobulid rays, new conservation and management measures for blue shark, swordfish and albacore, and set minimum standards for the optional implementation of Electronic Monitoring Systems

Those new recommendations enrich and complement those already existing for “BYC - BYCATCH SPECIES” (https://www.iccat.int/Documents/Recs/COMPENDIUM_ACTIVE_ENG.pdf):

*-BYC - BYCATCH SPECIES [95-02] Resolution by ICCAT on cooperation with the Food and Agriculture Organization of the United Nations (FAO) with regard to study on the status of **stocks and bycatches of shark species**.*

*[03-10] Resolution by ICCAT on the **shark fishery**.*

*[04-10] Recommendation by ICCAT concerning the conservation of **sharks** caught in association with fisheries managed by ICCAT.*

*[07-06] Supplemental Recommendation by ICCAT concerning **sharks**.*

*[07-07] Recommendation by ICCAT on reducing incidental by-catch of **seabirds** in longline fisheries.*

*[09-07] Recommendation by ICCAT on the conservation of **thresher sharks** caught in association with fisheries in the ICCAT Convention area.*

*[10-06] Recommendation by ICCAT on Atlantic **shortfin mako sharks** caught in association with ICCAT fisheries.*

*[10-07] Recommendation by ICCAT on the conservation of oceanic **whitetip sharks** caught in association with fisheries in the ICCAT Convention area.*

*[10-08] Recommendation by ICCAT on **hammerhead sharks** (family Sphyrnidae) caught in association with fisheries managed by ICCAT.*

*[11-08] Recommendation by ICCAT on the conservation of **silky sharks** caught in association with ICCAT fisheries.*

*[11-09] Supplemental Recommendation by ICCAT on reducing incidental by-catch of **seabirds** in ICCAT longline fisheries.*

[11-10] Recommendation by ICCAT on information collection and harmonization of data on by-catch and discards in ICCAT fisheries.

*[13-10] Recommendation by ICCAT on biological sampling of **prohibited shark species** by scientific observers.*

*[14-06] Recommendation by ICCAT on **shortfin mako** caught in association with ICCAT fisheries.*

*[15-06] Recommendation by ICCAT on **porbeagle** caught in association with ICCAT fisheries.*

*[18-06] Recommendation by ICCAT to replace Recommendation 16-13 on improvement of compliance review of conservation and management **measures regarding sharks caught** in association with ICCAT fisheries.*

*[21-09] Recommendation by ICCAT on the conservation of North Atlantic stock of **shortfin mako** caught in association with ICCAT fisheries.*

[21-11] Recommendation by ICCAT amending Recommendation 19-08 on management measures for the conservation of South Atlantic blue shark caught in association with ICCAT fisheries.

*[22-11] Recommendation by ICCAT on the conservation of the South Atlantic stock of **shortfin mako** caught in association with ICCAT fisheries.*

*[22-12] Recommendation by ICCAT on the **bycatch of sea turtles** caught in association with ICCAT fisheries (combine, streamline, and amend Recommendations 10-09 and 13-11).*

>**Porbeagle Stock assessment 2020** (Porbeagle Shark Stock Assessment Meeting. SCRS/2020/008). Neither the North Atlantic nor the South Atlantic stocks are undergoing overfishing (Table 4, section 3.1, page 17).

> Stock assessment for SMA to be carried out in 2024/2025.

Summary-Conclusion:

The ETP/OOS UoA is the whole Atlantic area under management of ICCAT. However, in order to have a more accurate sight of data for the species, results in the Species composition reports indicated above (“Catch composition”) are shown for North, for South and for the Atlantic Ocean as a whole (“Whole Atlantic”). Those reports shows that many of the species are found both and South, while others, like turtles, are more concentrated around tropical and equatorial waters.

Given the results shown in the species composition reports (and, for instance, the porbeagle stock assessment 2020), Most of the catches (around 90%) are blue shark and swordfish, followed by SMA mako in low percentage (around 3-5%). The rest of the catch is comprised by other commercial species represented in a very low percentage each one (less than 1% of the total catch each one, and mostly less than 0,5%); and then ETPs fish species (prohibited sharks mainly) which are represented in extremely low interaction (e.g bigeye thresher, only 0.22% of the total catch, that is, some 1-2 hundreds of tons; being the rest of sharks less than 0.05%). In addition, marine birds and marine mammal’s interactions are almost null, as mentioned above; and turtles have also a general low impact in the Atlantic as a whole, with very low rate of interaction or incidence (studies referred in this rationale indicates 0.8 turtles/1,000 hooks). Apart of that, the improvements of the practices for handling and releasing those species being implemented by the FIP point that many of those ETPs are released alive. Therefore, it is highly unlikely the fishery has a significant impact on ETP and that does not hinder the recovery of the ETP/OOS unit to favourable conservation status

Therefore, taking into consideration all the information and evidence reported above and the explanation in this summary, we consider that this PI meets presently the conditions to score at SG80.

Annex 1. Summary - Conclusions

Catch Composition (2018-2022), an approach to species interacting with the fishery. Dat source: DEA
(in Annual Report 2022).

Three species make up the large majority of the vessels' "catches" either for North, South or "Whole Atlantic" in terms of *all species interaction*:

Blue shark represents aprox. 71-75 % of the whole interactions and catches.
Swordfish represents aprox. 17-19 % of the whole interactions and catches.
Short fin mako represents aprox 3-5% of the whole interactions and catches (decreasing highly since 2021 to levels of 0,5-3%)

Big eye tuna, Escolar, Longbill spearfish, black marlin are the next species of the catch retained but representing most of the times a very low proportion, with less than the 1% of the total weight.

A group of about 10 species would make up the large majority of the vessels' discards either for North, South or Whole Atlantic in terms of all species interaction since 2021:

Shortfin mako, around the 50% (South) and 71% (for North) of the discards, followed by different species of protected sharks and swordfish in different proportions (Bigeye thresher, Oceanic white tip shark, Thresher sharks, Porbeagle, Hammerheads, Silky shark, Thresher).

In the report, tables with detailed figures for the composition of species interacting with the fleet are provided for North, South and whole Atlantic. Data are presented separately for Catch and Discard as well for "all species interacting".

Blue shark and Swordfish keep being the target species in relatively close percentages as in previous years of the total weight and small fin mako would represent around 3-5% of that total, so, primary species in terms of fishing management.

Annex 2. Summary - Conclusions

Catch composition (2020-2022). Review from data of the Observers Program.

(Analysis of data from the Observers Program).

("Catch" is referred here as just the fish interacting with the fishery in this context, not the "retained" part).

-Two species make up the large majority of the species interactions/catches: Blue shark (BSH), and Swordfish (SWO).

Blue shark is by far the main species caught in the North and South Atlantic, representing about the 64-65 % respectively of the total individuals registered for the three years revised.

This is in line with the general figures for the relative representation of the species in weight terms (about the 73-75%) provided in the report for DEA data (2022).

Swordfish is the second of the list for the North and South Atlantic with the 19-22% respectively of the total "catch".

This is in line with the general figures for the relative representation of the species in weight terms (about the 19-22% respectively) provided in the report for DEA data (2022).

-The third species in number of individuals is the Short fin mako, representing a 11.75-2% of the total for the three years analysed. This also in line with data provided in the report for 2022 DEA data report (5-3.79 % in weight).

-In North Atlantic, the rest of the species make each one less than the 1% of the total catch in numbers of individuals (all together representing a 2,5% of the total catch).

-There has been a considerable reduction of interactions of short fin mako that could be related with the ban on SMA set by ICCAT in the North Atlantic and the subsequent shift of the vessels from areas with less interaction of the species. More studies are needed concerning this issue.

-In South Atlantic, the rest of the species represent all together a 5% of the total catch in numbers of individuals.

-These figures prove the fishery is highly selective, representing only the BSH and SWO together about the 85% of the catch.

- Interaction with ETPs species is very low, being the following the main species and genus having interaction with the fishery:

[Sharks (*Alopias spp*, *Sphyrna ssp*, *Galeocerdo cuvier*, *Carcharhinus spp*, *Lamna nasus* *Isistius brasiliensis*, etc); *Mobulidae spp*; Rays, etc; *Mola mola*, Turtles (*Lepidochelys olivacea*, *Chelonia mydas*); marine mammals (*Tursiops truncates*, *Stenella clymene*, *Megaptera novaeangliae*, *Pseudorca crassidens*); marine birds (*Morus bassanus*, *Thalassarche chrysostoma*)]. See detailed data for ETP species reflected in the tables for "NORTH ATLANTIC (2020-2021-2022)" and "SOUTH ATLANTIC (2020-2021-2022)".

-There is almost not bird interaction with the gear (barely 3 specimens in three years in observers data) neither with marine mammals (no hooked at all with the gear; sights are recorded).

Fishermen released those individuals following the commitment and good practice of FIPBLUES.