

JRC SCIENCE FOR POLICY REPORT

Scientific, Technical and Economic Committee for Fisheries (STECF)

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Review of the implementation of the shark finning regulation and assessment of the impact of the 2009 European Community Action Plan for the Conservation and Management of Sharks (STECF-19-17)

Edited by Patricia Walker and Cecilia Pinto



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TABLE OF CONTENTS

				_
А	ns	tra	ct	7

SCIENT	IFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (STECF) - Review of the implementation of the shark finning regulation and assessment of the impact of the 2009 European Community Action Plan for the Conservation and Management of sharks (CPOA) (STECF-19-17)	t
Request	to the STECF	9
STECF of	observations	<u>ç</u>
STECF of	comments	9
STECF of	conclusions	13
Contact	details of STECF members	14
Expert \	Working Group EWG-19-17 report	18
1	Introduction	20
1.1	Terms of Reference for EWG-19-17	21
2	Rules covering sharks within the EU and internationally	22
2.1	Fishing Opportunities	22
2.2	Common Fisheries Policy (CFP)	23
2.3	Technical measures	23
2.4	Data collection and scientific advice	24
2.5	EU catches/sales and international trade	24
2.5.1	Catches within the EU and internationally	24
2.5.2	Information to consumers, labelling and traceability	24
2.6	International wildlife trade	26
2.7	Convention on the Conservation of Migratory Species of Wild Animals (CMS) \dots	27
3	Measures and actions in Regional Fisheries Bodies (RFBs) including Regional Fisheries Management Organisations (RFMOs)	29
3.1	Introduction	29
3.2	Overview of management measures for RFMOs and RFBs	29
4	review of country reports and landings data	31
4.1	Introduction	31
4.2	Content of Country Reports	33
4.2.1	Required information in country reports	33
4.2.2	Clarity of reporting requirements	33
4.3	EWG assessment of the Country Reports	37
4.3.1	Introduction	37
4.3.2	Method adopted for the assessment	42
4.3.3	Summary description of Country Reports	44
131	Quality, gans and shortcomings	50

4.4	Fisheries with potential to catch shark species within and outside EU waters fleet distribution and fishing practice	
4.4.1	Introduction	52
4.4.4	Analysis by country	62
4.5	Conclusions	73
4.5.1	Analysis of finning reports	73
4.5.2	Analysis of fisheries data	73
5	Implementation of the Fins Naturally Attached (FNA) policy both within and outside the EU	75
5.1	Within the EU	75
5.2	Outside the EU	75
5.2.1	Western and Central Pacific Fisheries Commission (WCPFC)	76
5.2.2	Inter-American Tropical Tuna Commission (IATTC)	76
5.2.3	Indian Ocean Tuna Commission (IOTC)	77
5.2.4	International Commission for the Conservation of Atlantic Tunas (ICCAT) \dots	77
5.2.5	General Fisheries Commission of the Mediterranean (GFCM)	78
5.3	Conclusions	79
6	Community Plan of Action	80
6.1	Introduction	80
6.2	Relation to IPOA	80
6.3	Shark Management	80
6.4	Review of actions defined	83
6.4.1	Introduction	83
6.4.2	Overarching Objective 1: to broaden the knowledge both on shark fisheries on shark species and their role in the ecosystem	
6.4.3	Overarching objective 2: to ensure that directed fisheries for shark are sustainable and that by-catches of shark resulting from other fisheries are properly regulated.	91
6.4.4	Overarching objective 3: to encourage a coherent approach between the intransport and external Community policy for sharks	
6.5	Linking objectives	100
6.6	Conclusions	101
7	Impact that EU fisheries have had on shark populations worldwide	102
7.1	Relative importance of EU fleets in relation to elasmobranch fisheries	102
7.2	Progress in the fisheries management of elasmobranch fisheries since the CI	
7.3	Evidence of recovery of depleted species	118
7.4	Evidence for international and regional cooperation	120
7.4.1	CITES and CMS	120
7.4.2	Regional cooperation	120
7.5	Conclusions	121

8	Conclusions	121
8.1	Analysis of country reports finning regulation	121
8.2	Analysis of fisheries data	122
8.3	Implementation of Fins Naturally Attached	123
8.3.1	Implementation of Fins Naturally Attached outside EU waters	123
8.3.2	Implementation of Fins Naturally Attached outside EU waters	123
8.4	Community Plan of Action (CPOA) review	124
8.5	Impact of EU fisheries	125
9	References	125
10	Contact details of EWG-19-17 participants	128
11	List of Annexes	130
12	List of Background Documents	131

Abstract

Commission Decision of 25 February 2016 setting up a Scientific, Technical and Economic Committee for Fisheries, C(2016) 1084, OJ C 74, 26.2.2016, p. 4–10. The Commission may consult the group on any matter relating to marine and fisheries biology, fishing gear technology, fisheries economics, fisheries governance, ecosystem effects of fisheries, aquaculture or similar disciplines. This report is from the EWG 19-17 Sharks which met in Ispra between 7th and 11th October 2019 to review the implementation of the shark finning regulation and to assess the impact of the 2009 European Community Action Plan for the Conservation and Management of sharks (CPOA).

The EWG 19-17 carried out four tasks: (1) a review of the MS national finning reports to assess data and reporting gaps, the overall quality of the reports and to identify any reporting shortcomings; (2) to comment, to the extent possible, on any implementation issues of the Fins Naturally Attached Policy by Member States, both for vessels operating in the EU waters and outside of EU waters; (3) a review of how the CPOA has been implemented; and (4) advise on the impacts that EU fisheries have had on shark populations worldwide, particularly in relation to the objectives of the CPOA.

EU fisheries continue to represent a major proportion of reported international landings of elasmobranchs. Three Member States (Spain, Portugal and France) are among the world's 20 largest fishing nations reporting landings of elasmobranchs to FAO during the period 2008–2017.

The reports submitted by the Member States had differing levels of compliance with the Finning Regulation. In the review of these national finning reports the EWG found several issues that hampered the analysis carried out. These issues were related in some instances to the lack of specificity in the Regulation. In others, some additional information, currently non mandatory according to the Regulation, but considered by the EWG as being of utmost importance for the assessment of the implementation was identified.

Examination of the MS reporting of the fins naturally attached policy revealed it has been well-implemented in EU waters, with only 14 cases of non-compliance in the past five years. Closer examination of the reports revealed a lack of coverage of the compliance of the fins naturally attached policy in waters outside the EU and a lack of information on the fleet segment catching sharks which the EWG noted as shortcomings as this made it difficult for the EWG to examine of the distribution of the EU fleets and the fishing practice in detail.

There we no instances of non-compliance by the EU fleet outside EU waters in relation to the shark finning regulation in the Convention Areas reported by any of the RFMOs. Compliance is monitored against the Conservation and Management Measures of each Commission which include requirements to ensure compliance with the finning prohibition in force. Although EU vessels should always be assessed against the 'fins naturally attached' criterion, no objective, quantitative information was available to the EWG to evaluate this and the EWG could not evaluate any progress in waters beyond national jurisdiction. Noting the difficulty of assessing how the fins naturally attached policy is implemented outside EU waters, the EWG has formulated some suggestions to address this.

The EWG notes that only one MS has registered a framework for the management of sharks under a the CPOA (UK National Plan of Action). Although many countries have management and conservation measures for elasmobranchs, these may not be registered at the EU level. An improved visibility of national approaches and a regional approach, including cooperation with RFMOs have been suggested by the EWG, with the Mediterranean ranked as highest priority.

The EWG considers that in the past 10 years progress in management and conservation of sharks has been made as measured against the potential "objectively verifiable indicators" defined in the European Community Plan of Action for the Conservation and Management of Sharks Impact Assessment from 2009. However, it has been suggested

by the EWG that a revision of the current CPOA is carried out because some elements of the CPOA are now obsolete (i.e. the actions on fins-naturally attached) and many of the identified actions do not have targets with measurable indicators and time bound targets against which to assess progress through time.

SCIENTIFIC, TECHNICAL AND ECONOMIC COMMITTEE FOR FISHERIES (STECF)

- Review of the implementation of the shark finning regulation and assessment of the impact of the 2009 European Community Action Plan for the Conservation and Management of sharks (CPOA) (STECF-19-17)

Request to the STECF

The STECF is requested to review the report of the STECF Expert Working Group meeting, evaluate the findings and make any appropriate comments and recommendations.

STECF observations

EWG 19-17 was held in Ispra, Italy, from 7^{th} to 11^{th} of October, with the participation of eleven scientific experts and two members of the European Commission. The EWG was requested to provide the following.

TOR 1 related to the *Shark Finning Regulation*, whose main objective is to prohibit the practice of shark finning in EU waters and for all EU vessels, through a Fins Naturally Attached (FNA) policy. The EWG was asked "to review MS national reports submitted under the Regulation on Sharks Finning and to assess the overall quality of these reports". More generally, it was "requested to comment, to the extent possible, on any implementation issues of the Fins Naturally Attached Policy by Member States, both for vessels operating in the EU waters and outside of EU waters"

TOR 2 referred to the *European Community Action Plan for the Conservation and Management of sharks (CPOA)*, the objectives of which are as follows:

- To broaden the knowledge both on shark fisheries and on shark species and their role in the ecosystem;
- To ensure that directed fisheries for shark are sustainable and that by-catches of shark resulting from other fisheries are properly regulated;
- To encourage a coherent approach between the internal and external Community policy for sharks.

On the basis of the MS reports and other sources of information (2016 Commission report to the Parliament and the Council, relevant scientific literature, data collection programs, etc.), the EWG was "requested to advise on the impacts that EU fisheries have had on shark populations worldwide, particularly in relation to the objectives of the European Community Action Plan for the Conservation and Management of Sharks."

To respond to the above requests, the EWG organized its works into four main tasks:

- 1. Review and assess the overall quality of the Member States (MS) national reports and identify any reporting shortcomings;
- 2. Comment on any implementation issues of the Fins Naturally Attached Policy both for vessels operating in the EU waters and outside of EU waters;
- 3. Review how the CPOA has been implemented;
- 4. Advise on the impacts that EU fisheries have had on shark populations worldwide in relation to the objectives of CPOA

STECF comments

General observations

STECF notes that while the terminology *Shark* refers *sensu stricto* to 9 of the 13 taxonomic orders of *Elasmobranchii* (as opposed to 'batoids' which includes rays), the Shark Finning regulations and the Action plan (CPOA) are referring to a larger taxonomic group. The shark finning regulation considers all *Elasmobranchii* (noting however that 'shark fins' excludes the pectoral fins of rays), while the CPAO considers that 'shark' refers to all species in the class *Chondrichthyes* (i.e. the *Elasmobranchii* and the *Holocephali*). STECF notes however that these differences in definition do not seem to be problematic in the context of the shark finning regulation.

STECF notes that the EWG faced challenging TORs relating to both the Shark finning regulation and the CPOA and the absence of pertinent information in MS reports or other sources prevented a comprehensive response to the Terms of reference. Nevertheless, the EWG is to be commended for its efforts in producing an informative and high quality report.

Comments related to TOR1 (Review of MS national reports on the reporting and implementation of the Shark finning regulation)

Quality of the MS reporting

In order to assess the overall quality of the MS reports on the implementation of the shark finning regulation, the EWG developed an analysis grid where all the criteria used to assess the MS report are detailed (Table 4.4 in the EWG report). From that grid, the EWG derived a scoring system to assess the quality of the reporting. STECF notes that this scoring system clearly shows the poor quality of the reporting, which does not appear to be improving over time. Only seven MS – Belgium, Cyprus, Denmark, Germany, Lithuania, Romania and Spain – provided reports annually. Eleven MS – Bulgaria, Estonia, Finland, France, Greece, Ireland, Latvia, Netherlands, Portugal, Slovenia, Sweden and UK – provided reports for some years and/or for some of the requested information. Four MS – Croatia, Italy, Malta, Poland – did not report at all.

STECF suggests that the grid analysis (Table 4.4) could be used by DG-Mare to develop clearer guidelines for MS regarding what they are expected to report on the shark finning regulation. It might also help DG-Mare in reviewing annual MS finning report and to provide feedback to MS in order to incrementally improve their reporting.

Identification of the fleet segments of interest

STECF notes that using the current reporting template, it is not possible to identify those fleet segments most likely to catch sharks, and especially in the context of the finning regulation, those species which have marketable fins. Such information is fundamental to monitor the implementation of the regulation and should be a reporting requirement.

Based on an analysis of elasmobranch landings at the EU fleet segments level, using data from the Data Collection Framework (DCF), the EWG identified for the first time the most important areas and fleets where sharks are caught, especially highlighting the importance of EU fleets operating in the Eastern Central and Southwestern Atlantic (FAO 34 & 41). However, such an analysis also revealed that biological and fisheries data sets from the DCF are often insufficient to identify all fleets that catch sharks and especially shark species with marketable fins. In many instances, shark catches are not reported at the species level or are misidentified. There is thus a need to improve species identification in European data calls, and help identification of species classified as threatened or regulated by CITES. STECF notes that the proposal of the EWG 19-12 for a revised EU-MAP (section 5.3 of this report) will support this, since it is proposed to change the data collection requirements for biological sampling of elasmobranchs from family/genus level to species level for all areas.

Enforcement of the regulation in EU waters

MS reports suggest a very high level of compliance with the Fins Naturally Attached policy (only 14 cases of fins-not-attached from a total of 24,591 inspections reported over the past 5 years). However, the inspection coverage per fleet segment is not provided. Furthermore, there is currently no specific requirement to organize inspections to ensure that those fleets that have a high risk of catching sharks, especially those with marketable fins, are inspected. Hence, at present it is not possible to reliably determine the degree of overall compliance with the finning regulation. STECF considers that MS should be requested to provide information on control by fleet segment, in data-base format (e.g. xls or csv) and using prescriptions provided by the EWG (see §4.5.1 of the report). STECF also endorses the suggestion that a future EWG or an ad-hoc contract should carry out a risk-assessment to identify fleet segments that have a high risk of catching sharks so that inspections can be targeted accordingly.

The EWG noted that no specific information relating to enforcement and compliance is currently available regarding non-EU vessels operating in EU waters. STECF considers that such information should be included in MS reports based on inspections carried out of such vessels. The European Fisheries Control Agency (EFCA) might be best placed to initiate and coordinate actions to ensure effective control and enforcement of the shark finning regulation by all vessels operating in EU waters.

Enforcement of the regulation outside EU waters

The Finning Regulation applies to vessels operating in maritime waters under the jurisdiction of Member States, as well as to vessels flying the flag of Member States and operating in other maritime waters. This means that EU vessels are subject to the Finning Regulation wherever they fish.

In order to assess control and enforcement of the regulation outside EU waters, information related to inspections performed by third parties on EU vessels should be available to DG-Mare (and to any EWG carrying out future assessments). STECF notes that this could be achieved both through MS reports since all cases of non-compliance have to be reported to the MS of the vessel flag, and through reporting of compliance by RFMOs.

Based on a review of reports from Tuna RFMOs, no instances of non-compliance with the finning regulation could be identified by the EWG regarding EU vessels. However, the EWG noted that each RFMO assessed compliance against the provisions of the finning regulation within its convention area. Such provisions could either be Fins Naturally attached or fins should represent less than 5% by weight of the total weight of shark carcasses on board. STECF notes that the EWG experienced difficulties to find on the RFMOs' websites the appropriate information on whether compliance with the finning regulation for EU vessels in the convention areas of RFMOs is being assessed against the EU Fins Naturally attached policy. Therefore, STECF is unable to assess whether EU vessels operating in the convention areas of tuna RFMOs are compliant with the EU finning regulation or to evaluate any changes in compliance with that regulation over time.

To better understand the how well the finning regulation is being implemented and complied with, STECF suggests the Commission should increase its efforts to obtain from RFMOs and non-EU States, information regarding mechanisms of surveillance, enforcement and prosecutions of EU vessels while outside of EU waters.

Although the issue of flag-hopping was not discussed by the EWG 19-17, STECF highlights that it remains a serious concern. Flag-hopping is the practice where a vessel temporarily re-registers under a flag of convenience to comply with certain regulations and avoid others. EU-owned vessels could switch from the EU flag to a flag of

convenience to avoid complying with the EU finning regulation and then switch back again. Such practices undermine the objectives of the finning regulation and to achieve full implementation of EU regulations by EU vessels, they need to be eradicated.

STECF made additional suggestions to improve the reliability of the data collected, including e.g. an harmonization of the elasmobranch landings categories with the elasmobranch trade categories, the identification of protected elasmobranch species that would lead to confiscations of illegal landings and the establishment of regulatory traceability programs (with onboard observers) against mislabeling. Also, training of professional fishers on the identification of protected elasmobranch species for performing in situ release, as foreseen by the current legislation, could be envisaged.

More generally, the EU has adopted regulations to prevent, deter and eliminate all illegal, unreported and unregulated fishing (IUU) (Council Regulations n° 1005/2008 and n° 1010/2009). IUU fishing is known to account for a large proportion of shark finning worldwide and measures that prevent IUU fishing will also help reduce the practice of shark finning.

Comments related to ToR2 (impacts of EU fisheries on shark populations in relation to CPOA)

Of the 16 European MS concerned with the EU Action Plan for the Conservation and Management of Sharks, only the UK has developed a National Plan of Action. Some of the other 15 MS have developed national policy plans or specific conservation measures related to sharks, but the information available to the EWG was insufficient to conduct a comprehensive synthesis of actions at the European level. In addition, the EWG noted that assessing the actions laid out in the CPOA was hampered by the absence of specific targets and indicators.

Therefore, in order to assess the overall effectiveness of the CPOA in reaching its objectives, the EWG relied on expert judgment. Based on a review of all actions mentioned in the CPOA, the EWG assessed the development, limitations and progress made into nine areas of related actions and suggested future developments. According to the results of the analysis, STECF agrees that significant progress has been made on all actions in the Fins Naturally Attached policy and the Finning Regulation has now become EU legislation. The future considerations provided in the EWG Report are aimed at improving transfer of knowledge and information between organisations (e.g. RFMOs, CITES, CMS, OSPAR...). However, the EWG did not have time to provide specific suggestions regarding how on such improvements might best be achieved.

STECF notes that certain elements of the CPOA are now obsolete (e.g. on fins naturally attached) and it would be desirable to revise the CPOA and incorporate clear, measurable and time-bound targets, mechanisms for linking the main objectives of the plan (for instance regarding data and research objectives, or legislation and management objectives) and to provide guidance to Member States on implementation. STECF further proposes that coordination with relevant bodies in which EU MS are Party (including ICCAT, NEAFC and CECAF) is continued to support regional cooperation under the IPOA-Sharks model.

Regarding the broader question of the European impact on shark populations, the EWG underlined that EU fisheries continue to represent a major proportion of reported international landings. Spain have consistently been among the three main fishing nations in terms of reported landings over the past 20 years (55,937tons of 'fin marketable' sharks declared in 2017), while the reported landings of all EU MS fleets combined have accounted for an average of about 120,000 tons representing 13% of the world's elasmobranch catches (FAO FishStatJ, 2019).

STECF notes the EWG report indicates progress in some aspects of the management and conservation over the past 10 years, as measured against the potential "objectively verifiable indicators" defined in the European Community Plan of Action for the Conservation and Management of Sharks Impact Assessment (CEC, 2009). In particular, more species are being identified in the reported landings and evidence of recovery of some species such as the depleted common skate (*Dipturus batis* & *Dipturus intermedius*) complex in the North Sea. The STECF also notes that the EWG report also indicates intensification in international and regional cooperation in conservation and management of sharks. Nevertheless, many shark populations remain threatened. The most recent published European Red List of Marine Fishes from IUCN includes 42 species of Elasmobranchs, of which eight shark species *sensus stricto* (i.e. not including rays) are classified as critically endangered. At the regional level, further progress in management and conservation of sharks is still required in several regional seas. STECF notes that in the Mediterranean Sea in particular, the status of the elasmobranchs is of particular concern since many sharks populations are considered to be severely depleted.

STECF conclusions

STECF concludes that based on the information provided in the EWG report, non-compliance with the finning regulation is low. However, it is not possible to know whether the information provided is derived from inspections carried out on the main shark-catching fleets. Hence there is currently no guarantee that the shark finning regulation, which is now part of the EU legislation, is sufficiently and appropriately implemented and complied with in EU waters.

To assess overall implementation and compliance with the shark finning regulation by all vessels operating in EU waters, STECF advises that MS should be requested to provide information from inspections by both EU and non-EU fleet segments. STECF suggests that the European Fisheries Control Agency (EFCA) could be tasked with encouraging and coordinating actions set up by MS, with the objective to assess and ensure compliance with the regulation.

STECF concludes it is of key importance to understand which fleet segments are the main ones catching sharks. This could be provided in MS Reports, so STECF suggests they are requested to do so. The information required is which fleet segments catch which species of shark. It could also be reported via an appropriate DCF data call.

More generally, STECF suggests that new guidance be provided to MS on the appropriate reporting requirements of the shark finning regulation. In this context, STECF agrees with the proposal of the EWG 19-12 (section 5.3 of this Plenary Report) to amend the EU MAP data collection requirements for biological sampling of elasmobranchs from family/genus level to species.

STECF concludes that the EU should increase its efforts to obtain from RFMOs and non-EU States, information regarding mechanisms of surveillance, enforcement and prosecutions to allow an overall assessment of compliance of EU vessels fishing outside of EU waters.

Based on the information in the EWG 19-17 report, STECF concludes that certain elements of the CPOA are obsolete and recommends a revision of the CPOA to identify clear, measurable and time-bound targets, including guidance on how MS should implement it.

Finally, STECF acknowledges that there are observations which suggest that progress in the management and conservation of sharks has been made in the past 10 years. However, STECF stresses that the status of many shark populations remains a concern. STECF concludes that new efforts are required for shark conservation, especially in areas

such as the Mediterranean Sea where the status of many elasmobranch populations is of particular concern. STECF also stresses that the prevention of any flag hopping by EU vessels, and more generally the full implementation, control and enforcement of EU regulations to phase out IUU fishing, is of crucial importance in eliminating shark finning practices and improving sustainable management and conservation of shark populations.

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REPORT TO THE STECF

EXPERT WORKING GROUP ON
Review of the implementation of the shark
finning regulation and assessment of the
impact of the 2009 European Community
Action Plan for the Conservation and
Management of sharks (CPOA)
(EWG-19-17)

Ispra, Italy, 7-11 October 2019

This report does not necessarily reflect the view of the STECF and the European Commission and in no way anticipates the Commission's future policy in this area

1 Introduction

EU fisheries represent a major proportion of reported international landings of elasmobranchs and sustainable management of species within the EU is of importance to the ecosystem health and elasmobranch populations worldwide. In the EU the management and conservation of sharks is regulated through the EU's Common Fisheries Policy (CFP), the_EU strategy for the conservation and management of sharks and the Finning Regulation. There are a number of international instruments, legal frameworks and fora to achieve the goals specified, which will be further elaborated on in Chapter 2.

The EWG was asked to specifically 'review the implementation of the shark finning regulation and to assess the impact of the 2009 European Community U action plan on sharks'.

The European Community Action Plan for the Conservation and Management of sharks (CPOA)

Following the 1999 International Plan of Action (IPOA) for Sharks, the European Commission adopted the European Community Action Plan for the Conservation and Management of Sharks, which was further endorsed by the EU Council of Ministers in 2009. This Community Plan of Action (CPOA sharks)¹ has three objectives: to broaden the knowledge on shark fisheries, on shark species and their role in the ecosystem; to ensure that directed fisheries for shark are sustainable and that by-catches of shark resulting from other fisheries are properly regulated; and to encourage a coherent approach between the internal and external Community policy for sharks. A series of actions have been defined and Guidelines for the Conservation and Management of Sharks² were developed.

"The Community must develop a **gradual strategy** to deal with shark-related issues. The development of this strategy is based on scientific data collected under the multi-annual Community programme for data collection pursuant to <u>Regulation (EC) No 199/2008</u>. This programme supplements the assessment of the stocks status carried out by the ICES working group on sharks through 2007-2009.

The conservation of shark species requires that **regional cooperation** be strengthened, through RFMOs, the Convention on Migratory Species (CMS) and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The range of the different species is not limited to Community waters. It is for this reason in particular that the Community requests support for the work carried out by the RFMOs, reinforcement of the role of existing RFMOs in fisheries management policy and cooperation in creating new RFMOs in areas which lack them.

Proper management of shark stocks requires an **integrated framework of actions**. The Community Action Plan is structured in accordance with the FAO shark-plan. It includes a set of measures intended to improve data collection and scientific advice, management and technical measures and a further strengthening of the application of the <u>shark finning ban</u>."

The CPOA gives an indication of the measures and actions deemed necessary both at EU (fishing opportunities, technical measures, effort and capacity limits, data collection) and

¹ http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:52009DC0040

² https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM:ev0014

international level, in particular in Regional Fisheries Management Organisations (RFMOs) and also refers to other international organisations, such as Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Convention on Migratory Species (CMS) and regional sea conventions, such as the Barcelona and OSPAR Convention.

The Shark Finning Regulation³

The practice of "shark finning" whereby the fins are removed from the live sharks on board of a fishing vessel and the carcasses returned to sea, can be considered as a major threat to shark populations. This practice was forbidden in EU waters for all vessels fishing there and in all waters for vessels operating under the flag of an EU Member State since 2007. To close loopholes in the legislation and to facilitate monitoring and control of the ban, it was been reinforced in 2013 by a strict "fins-naturally-attached" policy (FNAP) through Regulation (EU) No 605/2013⁴.

An overview of the monitoring and control activities by EU Members States is given in the Commission's report $COM/2016/0207^5$ to the Parliament and the Council on the implementation of Regulation No 1185/2003 as amended by Regulation (EU) No 605/2013.

1.1 Terms of Reference for EWG-19-17

Review the implementation of the shark finning regulation and to assess the impact of the 2009 European Community Action Plan for the Conservation and Management of Sharks

Background

Under article 6 of REGULATION (EU) No 605/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL, Member states are obliged to provide to the Commission a report on the implementation of the regulation. In 2019 it will be ten years since the publication of the European Community Action Plan for the Conservation and Management of Sharks (COM/2009/0040 final). The purpose of the Community Action Plan is to contribute to that general objective by ensuring the rebuilding of many depleted stocks fished by the Community fleet within and outside Community waters. The Action Plan outlines what is already in place and what is still needed to do to ensure a comprehensive and coherent legislative policy and legislative framework for the conservation and management of sharks within and outside Community waters. It is therefore timely to review the impact of this action plan and to consider what further steps may be required.

Terms of Reference

• To review MS national reports submitted in response to MS reporting requirements under the Regulation on Sharks Finning (No 1185/2003, as amended No 605/2013). In particular to assess data and reporting gaps, overall quality of the reports and to identify any reporting shortcomings. In addition, STECF is

³ Council Regulation (EC) No 1185/2003 of 26 June 2003 on the removal of fins of sharks on board vessels, as amended by Regulation (EU) No 605/2013 https://eurlex.europa.eu/legal-

content/EN/TXT/?qid=1562843839047&uri=CELEX:02003R1185-20130706

⁴ http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32013R0605

⁵ http://eur-lex.europa.eu/legal-content/en/ALL/?uri=COM:2016:207:FIN

- requested to comment, to the extent possible, on any implementation issues of the Fins Naturally Attached Policy by Member States, both for vessels operating in the EU waters and outside of EU waters.
- On the basis of these reports and other sources of information such as the 2016 Commission report to the Parliament and the Council, relevant scientific literature, data collection programmes etc. STECF is requested to advice on the impacts that EU fisheries have had on shark populations worldwide, particularly in relation to the objectives of the European Community Action Plan for the Conservation and Management of Sharks.

2 Rules covering sharks within the EU and internationally⁶

The European Community Plan of Action for the Conservation and Management of Sharks (CPOA sharks)⁷ and the EU Finning Regulation⁸ were clarified in the Introduction, but there are more legal instruments to achieve the goal that the European Union has set itself for the conservation and sustainable management of sharks both within and outside the EU.

2.1 Fishing Opportunities

Under the relevant EU legislation, such as the fishing opportunities regulations, there is a general prohibition on fishing of those threatened species, listed under Article 14 in Council Regulation (EU) 2019/1249. These species include sharks and rays listed in Appendix I of the Convention on the Conservation of Migratory Species (see 2.7) and/or prohibited under RFMO conservation and management measures. Prohibition prevents sharks from being landed. The species have to be promptly released unharmed, as far as possible, thus further preventing fins of at-risk species ending up on the market place. The EU will keep these measures in place as long as they are deemed appropriate by scientists to protect these species. A similar approach is promoted by the EU in RFMOs.

Whilst some species of sharks require protection under a prohibition which prohibits targeting, transhipping and landings and requires all individuals to be promptly released, other species can also be fished for sustainably, for example some species of skates and rays in the North-East Atlantic. For these stocks, landings are managed through a series of Total Allowable Catches (TACs) specified as "quotas" for Member States under the fishing opportunities regulations. For skates and rays these are all group TACs which combine fishing opportunities for a number of species. TACs, proposed by the Commission and adopted by the Council, are legally obliged to follow scientific advice from the International Council for the Exploration of the Sea (ICES) and can take into account biological and socio-economic aspects, assigning the annual fishing "quotas" in EU waters and for EU vessels in non-EU waters. Deep sea sharks are

content/EN/TXT/?qid=1551275819446&uri=CELEX:32019R0124

⁶ The EWG acknowledges the contribution of DG-Mare to this part of the report.

⁷ http://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX:52009DC0040

⁸ Council Regulation (EC) No 1185/2003 of 26 June 2003 on the removal of fins of sharks on board vessels, as amended by Regulation (EU) No 605/2013 https://eurlex.europa.eu/legal-

content/EN/TXT/?qid=1562843839047&uri=CELEX:02003R1185-20130706

9COUNCIL REGULATION (EU) 2019/124 of 30 January 2019 fixing for 2019 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in Union waters and, for Union fishing vessels, in certain non-Union waters https://eurlex.europa.eu/legal-

managed through prohibition on catches coupled with at bycatch TAC for the landing of some unavoidable bycatch in the black scabbard fishery.

Provisions on sharks in the fishing opportunities regulations:

- For demersal and pelagic sharks: <u>Council Regulation (EU) 2019/124 of 30 January 2019</u> fixing for 2019 the fishing opportunities for certain fish stocks and groups of fish stocks, applicable in **Union waters and, for Union fishing vessels, in certain non-Union waters**
- For Deep-**sea sharks:** Council Regulation (EU) 2018/2025 of 17 December 2018 fixing for 2019 and 2020 the fishing opportunities for Union fishing vessels for certain deep-sea fish stocks

2.2 Common Fisheries Policy (CFP)

The EU's Common Fisheries Policy¹⁰ aims, inter alia, at ensuring that fishing activities are environmentally sustainable and managed in a way that is consistent with the objectives of achieving economic, social and employment benefits. It applies the precautionary and ecosystem-based approaches to fisheries management so as to ensure that negative impacts of fishing activities on the marine environment are minimised. These objectives can be achieved through the implementation of appropriate technical and mitigation measures.

2.3 Technical measures

The general technical measures framework contributes to the conservation and management of the sharks species. The new Technical Measures Regulation¹¹, that came into force in August 2019, aims *inter alia* to improve selectivity of fishing gears and reduce bycatches. This Regulation further integrates specific technical measures previously included in the Mediterranean Regulation¹² to protect various shark and rays species, such as the prohibition to use driftnets, the prohibition to use bottom set nets to catch several groups of sharks as well as gear requirements such as maximum net dimension and low twine thickness for bottom-set nets that further help to reduce unwanted by-catches of sharks. The Mediterranean Regulation has also provisions on the protection of the coastal zone from trawling.

The Technical Measures Regulation also confirms the prohibited species regulation from the TAC and Quota Regulation (see paragraph 2.1) through an annex to the Regulation

The EU financially supports the scientific community and the fishing industry to develop new and selective fishing gears that help avoid sharks in the first place.

Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy

COUNCIL REGULATION (EC) No 1967/2006 of 21 December 2006 concerning management measures for the sustainable exploitation of fishery resources in the Mediterranean Sea, amending Regulation (EEC) No 2847/93 and repealing Regulation (EC) No 1626/94

Regulation (EU) 2019/1241 of the European Parliament and of the Council of 20 June 2019 on the conservation of fisheries resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1224/2009 and Regulations (EU) No 1380/2013, (EU) 2016/1139, (EU) 2018/973, (EU) 2019/472 and (EU) 2019/1022 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005. OJ L 198, 25.7.2019, p.105

There are also technical measures being implemented at the RFMO level, like the prohibition on the use of wire trace or of "shark lines" in longline fisheries targeting tuna and billfish in the WCPFC (CMM2014-05), or the implementation of non-entangling FADs in the purse seine fishery (IOTC Resolution 18/08, IATTC Resolution C-18-05).

2.4 Data collection and scientific advice

As the data on sharks contributes to the scientific advice, which is the basis for sound management measures, the Commission helps Member States to collect the data. Under the Data Collection Framework (DCF)¹³, the multi-annual Union programme provides for the collection, management and use of data including on sharks¹⁴.

The International Council for the Exploration of the Sea Working Group on Elasmobranch Fishes (ICES WGEF)¹⁵ is providing assessments and ICES issues the advice on the state of the stocks of sharks, skates, and rays throughout the ICES area. Moreover, the Scientific Committees of the Regional Fisheries Management Organisations (RFMOs) deliver the scientific advice on relevant shark stocks.

2.5 EU catches/sales and international trade

2.5.1 Catches within the EU and internationally

According to the FAO, global shark catches have tripled since 1950 reaching a peak in 2000 with 888 000 t. Recent estimates indicate a volume of catches around 790 000 t for a value of approx. 900 000 000 euro.

According to the data available to the Commission, the species with by far the highest landing volumes by EU vessels is blue shark, which is not prohibited by EU regulations, in view of the advice from ICCAT's scientific committee (SCRS) that the North Atlantic stock is unlikely to be overfished nor is overfishing occurring. In the South Atlantic there was a wider uncertainty and the SCRS recommended no further increase in fishing effort¹⁶. Another relevant species that is caught and commercialised by EU vessels, albeit to a lesser extent, is the shortfin mako. The ICCAT Shark Species Group advised in 2017 and in 2019 that the North Atlantic stock was overfished with overfishing taking place and that catches of this species should be prohibited. The stock assessors projected in 2019 that the stock would continue to decline until at least 2035, even if fishing ceases immediately. No projection was produced for the data poor South Atlantic mako shark stock, but its similar biology and fisheries development trends indicate a high risk that it will follow a similar trajectory and require decades to rebuild even after significant catch reductions.

2.5.2 Information to consumers, labelling and traceability

The traceability of shark products and transparent consumer information is a crucial element in the EU's shark policy.

Regulation (EU) 2017/1004 of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008

¹⁴ Multiannual Union programme for the collection, management and use of data in the fisheries and aquaculture sectors for the period 2017-2019 http://eurlex.europa.eu/legal-content/en/ALL/?uri=CELEX:32016D1251

¹⁵ http://www.ices.dk/community/groups/Pages/WGEF.aspx

¹⁶ https://www.iccat.int/Documents/SCRS/DetRep/BSH_SA_ENG.PDF

According to Article 7(1) of Regulation (EC) 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, "food information shall not be misleading, particularly: (a) as to the characteristics of the food and, in particular, as to its nature, identity, properties, composition...".

Specific provisions in the fisheries sector ensure a high degree of consumer information. Article 35(1) of Regulation (EU) No 1379/2013 of the European Parliament and of the Council of 11 December 2013 on the common organisation of the markets in fishery and aquaculture products 17 provides that shark products that are not prepared or preserved, including steaks and fins, "may be offered for sale to the final consumer or to a mass caterer only if appropriate marking or labelling indicates [...] the commercial designation of the species and its scientific name." Article 37(1) of the above Regulation provides that "Member States shall draw up and publish a list of the commercial designations accepted in their territory, together with their scientific names." Article 37(1) specifies that the commercial designation consists of "the name of the species in the official language or languages of the Member State concerned" and, "where applicable, any other name or names that are accepted or permitted locally or regionally."

Moreover, Article 58(5) of Council Regulation (EC) No 1224/200918 of 20 November 2009 establishing a Community control system for fisheries imposes on EU operators traceability in relation to labelling (information to consumers - also by Regulation No 1308/2013 on the common organisation of the markets). The said provision requires that the following information is provided with regard to all lots of fisheries: identification number, external identification number and name of the fishing vessel, the FAO alph-3 code of each species, the commercial designation and Latin name of the species, the relevant geographical area, the production method, the date of catch, the quantities of each species. Such information should be made available at any stage (to control authorities, business operators - buyers). It can be placed on each lot directly, if not, each lot should have an identification mark allowing for proper identification and link with the accompanying document. These obligations apply to all shark products (fresh, frozen carcasses, fresh, frozen and dried shark fins) destined to the EU market, which are not prepared or preserved. They are not compulsory for shark (or any other) products exported/shipped to third countries (in this case fins to Asia).

In order to improve the controls by national authorities at all stages of the supply chain, the Commission has made a proposal for the revision of the fisheries control system¹⁹ to reinforce the provisions on traceability. The proposed measure would link each lot of fishery product to a specific vessel and a specific fishing trip and would require that traceability information is available electronically at any stage of the supply chain.

Moreover, Council Regulation (EC) No 1005/2008 of 29 September 2008 concerning illegal-unreported-unregulated fishing, requests catch certificates for imports of most marine fisheries products. The EU catch certification system aims at ensuring that fishery products imported in the EU stem from fishing activities conducted in accordance with applicable conservation and management measures. Catch certificates provide essential information on fishing vessels, products concerned (species, product classification, weight), information about fishing activities (area, applicable conservation measures as well as information related to movement of fishery products along the international supply chain.

¹⁷ http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32013R1308

¹⁸ http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009R1224

¹⁹ COM(2018)368

2.6 International wildlife trade

The EU legislative framework for international trade in wildlife is primarily based on the principle that trade should be monitored and, where necessary, regulated to ensure it is legal and sustainable and does not threaten the survival of wild animals and plants, in line with the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). All EU Member States and the Union itself are Parties and implementing the provisions of the Convention. It is important to note that catches and utilisation inside the EU MS and EEZs are not classified as international trade.

Species listed in Appendix I of CITES cannot be traded commercially, while those listed in Appendix II can be traded under certain conditions (trade must be legal, sustainable and traceable). All sawfishes (members of the wider shark group) are listed in Appendix I. Fourteen, mostly oceanic pelagic shark species, and all mobulid rays, giant guitarfish and white spotted wedgefish species (batoid fishes, which are closely related to sharks) are listed in Appendix II. The majority of CITES-listed shark species are also listed in one or both Appendices to the Convention on the Conservation of Migratory Species (CMS) and are prohibited species in some RFMOs (Appendix 1). For all listings and information on CITES and shark see Table 2.1 and https://www.cites.org/eng/prog/shark.

CITES is implemented in the EU through a set of Regulations known as the EU Wildlife Trade Regulations which also require import permits for species in Appendix I and II (CITES only requires export permits for Appendix-II species).

As a Party to CITES, the EU plays an active role in ensuring that trade in fins, meat or any parts of sharks does not have a detrimental effect on the survival of these species.

A number of threatened sharks species are now included in Annex B to Council Regulation (EC) No 338/97²⁰ on the protection of wild fauna and flora by regulating trade therein²¹. Trade in these species is therefore strictly regulated, including as regards imports into the EU of shark fins for consumption on the European market. In particular, commercial trade in shark species listed in Annex B is possible only under strict conditions, including that competent scientific bodies have established that international trade does not have a detrimental impact on the conservation status of those species in the wild.

The Commission and the EU Scientific Review Group monitor trade levels and the biological status of CITES-listed shark species. When concerns arise that international trade is not sustainable according to conditions specified in Council Regulation (EC) No 338/97 (in particular, because it would have a harmful effect on the wild population of the species), trade suspensions can be enacted, either ad hoc or on a more permanent basis. Currently the EU is prohibiting the import from two countries of one shark species where the conditions for sustainable trade are not considered to be met.

Trade in sharks products is also addressed in a number of other decisions adopted by the CITES Conference of the Parties, with a view to improving the implementation of CITES requirements for those species, in particular sustainability, legality and traceability of trade. The EU is supporting the implementation of those decisions with funds from its "Global Public Goods and Challenges" development cooperation programme.

²⁰ http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32013R0750:EN:NOT

²¹ http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31997R0338&from=en

2.7 Convention on the Conservation of Migratory Species of Wild Animals (CMS)

There are currently 18 shark and 20 ray species listed in the CMS Appendices (unlike CITES, a species can be listed in both Appendices). There is considerable (but not complete) overlap between species listed in the CITES and CMS Appendices. All species listed in the CMS Appendices should be supported by a Concerted Actions document, specifying conservation and institutional outcomes expected from each action and timeframes for achievement, but these have not yet been developed for many shark species.

CMS Appendix II includes migratory species with an unfavourable conservation status, whose conservation requires collaboration between Parties. Appendix I lists endangered species which require strict protection (defined as prohibiting their take²²). Thus, Parties to CMS (which include the EU and its Member States) are expected to adopt strict protection measures for migratory species listed in Appendix I (although not all have done so²³).

Threatened sharks are also listed in the Annex of the **Memorandum of Understanding on the Conservation of Migratory Sharks**²⁴ (MoU on sharks), at the proposal and acceptance of Parties, to which the EU is a signatory, and which is an instrument in the context of the Convention on Migratory Species (CMS). This is a non-legally binding treaty in which signatories encourage to commit to further sustainable management of CMS listed species. The EU has signed it in 2011. It includes a Conservation Plan with specific objectives which encourage signatories to pursue these activities through RFMOs. Currently 29 species of sharks & rays (the list differs slightly from the species listed in the CMS Appendices) are listed in Annex I of the MoU, thus allowing raising public awareness about their specific challenges and assembling critical mass for joint conservation efforts. This list differs slightly from the species listed in the CMS Appendices. See also Table 2.1

²² Defined as "taking, hunting, fishing, capturing, harassing, deliberate killing, or attempting to engage in any such conduct."

Lawson and Fordham (2019) examined the legislation of 83 CMS Parties that are a range State for at least one Appendix I species. 23 Parties (28%), including 13 EU Member States, had strict protection for all CMS Appendix I shark and ray species. An additional 28 Parties had protected some Appendix I species or had partially effective measures in place for all species in their waters.

Table 2.1 Elasmobranchs listed and proposed for listing in the CITES and CMS Appendices and effective dates (many CITES listings had an 18 month delayed implementation).

Common name	Species	CITES Appendix	CMS Appendix	CMS MOU	RFMO restrictions
Sawfishes	Pristidae, all (five) spp	I (2007)	I, II (2014)	2016	-
Pelagic thresher	Alopias pelagicus	II (2017)	II (2014)	2016	IOTC
Bigeye thresher	Alopias superciliosus	II (2017)	II (2014)	2016	ICCAT, IOTC
Common thresher	Alopias vulpinus	II (2017)	II (2014)	2016	ICCAT, IOTC
Silky shark	Carcharhinus falciformis	II (2017)	II (2014)	2016	IATTC, ICCAT WCPFC
Oceanic whitetip	Carcharhinus Iongimanus	II (2014)	(I prop 2020)	2018	IATTC, ICCAT IOTC, WCPFC
Dusky shark	Carcharhinus obscurus	-	II (2017)	2018	-
Basking shark	Cetorhinus maximus	II (2003)	I, II	2005	GFCM, NEAFC
White shark	Carcharodon carcharias	II (2005)	I, II (2002)	2010	GFCM
Shortfin mako	Isurus oxyrinchus	II (2019)	II (2008)	2010	GFCM, ICCAT
Longfin mako	Isurus paucus	II (2019)	II (2008)	2010	-
Porbeagle	Lamna nasus	II (2014)	II (2008)	2010	GFCM, ICCAT NEAFC
Tope shark	Galeorhinus galeus	-	(II prop 2020)	-	GFCM
Blue shark	Prionace glauca	-	II (2017)	-	-
Whale shark	Rhincodon typus	II (2003)	I (2017) II (1999)	2010	IATTC, IOTC WCPFC
Scalloped Hammerhead	Sphyrna lewini	II (2014)	II (2014)	2016	GFCM, ICCAT IOTC
Great hammerhead	Sphyrna mokarran	II (2014)	II (2014)	2016	GFCM, ICCAT IOTC
Smooth hammerhead	Sphyrna zygaena	II (2014)	(II Prop 2020)	-	GFCM, ICCAT IOTC
Spiny dogfish	Squalus acanthias (N. hemisphere)	-	II (2008)	2010	-
Angel shark	Squatina squatina	-	I, II (2017)	2018	GFCM
Manta rays	<i>Manta,</i> two spp (now in genus <i>Mobula</i>)	II (2014)	I, II (2011)	2016	IATTC
Mobulid/devil rays	<i>Mobula</i> , all (nine) additional spp	II (2017)	I, II (2014)	2016	(some GFCM, IATTC)
Wedgefishes	Rhinidae, all (ten) spp	II (2019)	-	2017	-
including:	Rhinobatos rhinobatos	11	II (2017)	2018	-
	<i>R. rhinobatos</i> (Mediterranean)	u	I, II (2017)	u	-
	<u>Rhynchobatus</u> <u>australiae</u>	n	II (2017)	11	-
	<u>Rhynchobatus</u> <u>djiddensis</u>	11	-	u	-
	Rhynchobatus laevis	п	-	11	-

Giant	Glaucostegidae, all six	II (2010)	_	_	_	l
guitarfishes	spp	11 (2019)	_	_	_	l

3 Measures and actions in Regional Fisheries Bodies (RFBs) including Regional Fisheries Management Organisations (RFMOs) 25

3.1 Introduction

Regional Fisheries Management Organisations (RFMOs) and Regional Fisheries Bodies (RFBs) have developed management measures to reduce the practice of shark finning. These can be the policy of fins-naturally attached (FNA) or a fin to carcass ratio. Some international treaties such as CCAMLAR also have developed an FNA policy. See Annex 1 for an overview of relevant RFMOs, RFBs and conventions.

3.2 Overview of management measures for RFMOs and RFBs

There are a number of Regional Fishery Bodies and international commissions which have specific management measures to prevent the finning of sharks. The original shark finning management measures adopted by the majority of RFMOs prohibit the removal of fins and discard of carcasses at sea and require that the weight of fins landed should not exceed 5% of the weight of sharks onboard up to the point of first landing. Contracting Parties that do not require fins and carcasses to be offloaded together at the point of first landing are required to take the necessary measures to ensure compliance with the 5% ratio through certification, monitoring by an observer, or other appropriate measures. This policy is still applied by the Inter-American Tropical Tuna Commission (IATTC), International Commission for the Conservation of Atlantic Tunas (ICCAT) and Western and Central Pacific Fisheries Commission (WCPFC) (but is under review in the latter).

Following the Commission's efforts to promote a fins-attached-policy, in autumn 2014 the first RFMO to move to a fins-attached policy to control shark finning was the North East Atlantic Fisheries Commission (NEAFC).

The Northwest Atlantic Fisheries Organization (NAFO) adopted in 2016 the fins naturally attached policy (FNAP) based on an EU proposal. NAFO also regulates through TACs the catches of skates and many shark species are listed for data collection. In addition, NAFO has closed 21 sensitive areas to trawling activities, which represents approx. 14% of the NAFO regulatory area and also benefits deep-sea sharks conservation (such as Greenland sharks).

In 2017 the Indian Ocean Tuna Commission (IOTC) adopted a fins naturally attached policy (FNAP) for fresh landings²⁶. IOTC is encouraging its CPCs to move away from the 5% weight ratio still applicable for frozen landings and progressively implement FNAP until the point of first landing for all shark catches

In addition to their efforts to eradicate of the practice of finning, most, if not all, RFMOs have adopted binding species-specific or general conservation and

²⁵ DG-Mare provided a background document to the EWG, on which this chapter is based.

Resolution 2017/05 On the conservation of sharks caught in association with fisheries managed by IOTC. www.iotc.org/cmm/resolution-1705-%E2%80%A8on-conservation-sharks-caught-association-fisheries-managed-iotc

management rules for sharks. These measures have been supported or proposed by the European Union.

For instance, ICCAT has adopted a number of measures for sharks, including for data collection, biological sampling, compliance etc. It has also adopted species-specific measures for several shark species, such as an average total catch limit for North Atlantic blue shark which will trigger a review of exceeded, and specific management rules for shortfin make and perbeagle. The suggested measures for shortfin make will be reviewed in November 2019. In addition, ICCAT has prohibited some shark species (which means that these species cannot be retained on board, landed, sold, etc.), such as, oceanic whitetip, silky shark, bigeye thresher shark, hammerhead sharks (except Sphyrna tiburo).

IOTC has also adopted binding measures for sharks, such as data collection and retention ban for species such as thresher sharks, oceanic whitetip and whale sharks, as well as for Mobulid rays (at the initiative of the EU).

IATTC adopted a retention ban for silky sharks, oceanic whitetip and Mobulid rays. Also on the basis of an EU proposal, IATTC agreed to establish a work-plan to undertake full stock assessments for silky sharks and hammerheads.

WCPFC has also adopted several conservation and management measures for sharks, such as a retention ban for silky shark, oceanic whitetip, whale shark, and developed guidelines for safe release of sharks and rays caught incidentally by various fishing gears. A comprehensive Conservation and Management Measure for sharks has been recently discussed at the Technical and Compliance Committee of the WCPFC, and will be considered by the Commission during its annual meeting in December 2019. To implement the no finning obligation this draft considers, in addition to the FNA, other possibilities like the inclusion of fin and carcasses in the same bag, the bounding through a rope or wire, or the tagging of both fins and carcasses, but proposes to eliminate the fin to carcass ratio²⁷.

Furthermore, in October 2018, the General Fisheries Commission for the Mediterranean (GFCM) adopted Recommendation 42/2018/2 on fisheries management measures for conservation of sharks and rays in the GFCM area, which amends Recommendation 36/2012/3 in order to align it with "finsnaturally-attached" policy. GFCM also cooperates with the Protocol concerning Specially Protected Areas and Biological Diversity (SPA/BD) of the Barcelona Convention. In that respect, 24 species of threatened sharks and rays are now strictly protected in the Mediterranean Sea. Regulation (EU) No 2015/2102 amending Regulation (EU) No 1343/2011 on certain provisions for fishing in the GFCM Agreement area, provides conservation measures on sharks. In particular, it prohibits retention, landing, sale etc. of sharks and rays listed in Annex II of the Barcelona Convention. In a technical Recommendation (GFCM/36/2012/3) GFCM stated "CPCs shall ensure that catches of tope shark (Galeorhinus galeus) taken with bottom- set nets, longlines, gillnets and in tuna traps shall be promptly released unharmed and alive to the extent possible" In all these international bodies the EU is supporting, including through voluntary financial contributions, scientific work aiming at developing adequate methodologies and assessing the conservation status of key shark species caught in association with fisheries managed by RFMOs. This is essential for allowing informed management decisions and ensuring the conservation and sustainable management of these fish species.

The relevant EU provisions on sharks are as follows:

 Regulation (EU) 2017/2107 of the European Parliament and of the Council of 15 November 2017 laying down management, conservation

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²⁷ https://www.wcpfc.int/node/43921

and control measures applicable in the Convention area of the International Commission for the Conservation of Atlantic Tunas (ICCAT), and amending Council Regulations (EC) No 1936/2001, (EC) No 1984/2003 and (EC) No 520/2007.

 NAFO: Regulation (EU) 2019/833 of the European Parliament and of the Council of 20 May 2019 laying down conservation and enforcement measures applicable in the Regulatory Area of the Northwest Atlantic Fisheries Organisation, amending Regulation (EU) 2016/1627 and repealing Council Regulations (EC) No 2115/2005 and (EC) No 1386/2007

The Southeast Atlantic Fisheries Commission (SEAFO) has a Convention on the Conservation and Management of Fishery Resources in the South-East Atlantic Ocean. The EU is one of the signatories. SEAFO "employs an ecosystem and precautionary approach to fisheries management when deciding on management and conservation measures. The Commission adopts resolutions and recommendations based on scientific advice from the Scientific Committee; and monitoring, control and surveillance (MCS) advice from the Compliance Committee." SEAFO's shark finning prohibition applies a 5% fin:carcass ratio.

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) was established by international convention in 1982 with the objective of conserving Antarctic marine life. There are conservation measures to prevent commercial fishing on sharks. Conservation Measure 32-18 on the "conservation of sharks prohibits "directed fishing on shark species in the Convention Area..." and calls for the live release of incidentally-caught sharks where possible."

The Convention for the Conservation of Southern Bluefin Tuna (CCSBT) requires its members to follow the 'Ecologically Related Species' measures of other relevant tuna RFMOs in the CCSBT area, including finning prohibitions.

Further listing and access to the relevant decisions that RFMOs have taken to conserve sharks can be found on the FAO Database of measures on conservation and management of sharks²⁸. The Database of measures provides a collection of instruments for the conservation and management of sharks, including binding and non-binding Conservation and Management Measures, Plans of Action, and national legislation.

4 REVIEW OF COUNTRY REPORTS AND LANDINGS DATA

4.1 Introduction

The EWG assessed Country Reports related to the shark finning regulation (Article 6 of Regulation 605/2013 of the European Parliament), on species belonging to the taxon Elasmobranchii by EU fishing vessels between 2015 and 2018. Article 6 specifically states:

"... The report shall describe the monitoring by the flag Member State of compliance with this Regulation by its vessels in Union and non-Union waters,

²⁸ FAO. 2019. Database of measures on conservation and management of sharks. In: Food and Agriculture Organization of the United Nation [online]. Rome. Database version 1-2019. www.fao.org/ipoa-sharks/database-of-measures/en

and the enforcement measures it has taken in cases of non-compliance. In particular, the flag Member States shall provide the following information:

- The number of landings of sharks,
- The number, date and place of the inspections that have been carried out,
- The number and nature of cases of non-compliance detected, including a full identification of the vessel(s) involved and the penalty applied for each case of non-compliance, and
- The total landings by species (weight/number) and by port."

Table 4.1 shows the reports which had been submitted to the EU by each country and made available to the EWG. Austria, Czechia, Hungary, Luxembourg and Slovakia are not included as these countries do not have marine fisheries. The level of reporting varies between years and countries. Croatia, Finland, Italy and Poland did not submit reports for the period 2014-2018.

Table 4.1: Summary of Country Reports available to the EWG (Note: Austria, Czechia, Hungary, Luxembourg, Slovakia not included as these countries do not have marine fisheries). Y = report available; - = report not available.

Reporting year	2015	2016	2017	2018	2019
Year of data	2014	2015	2016	2017	2018
Member Sta	te				
Belgium	Y	Y	Y	Y	Υ
Bulgaria	-	Y	Y	Y	Υ
Croatia	-	-	-	-	-
Cyprus	Y	Y	Υ	Υ	Υ
Denmark	Y	Y	Υ	Υ	Υ
Estonia	-	ı	ı	1	Υ
Finland	-	1	1	1	Υ*
France	-	ı	ı	-	Υ
Germany	Y	Y	Υ	Y	Υ
Greece	Υ	Y	Υ	1	1
Ireland	Y	-	-	-	Υ
Italy	-	-	-	-	1
Latvia	Υ	-	-	-	1
Lithuania	Y	Y	Y	Y	Y
Malta	-	-	-	-	-

Netherlands	Y	-	-	-	γ**
Poland	-	-	-	-	-
Portugal	-	Y	Y	Y	Y
Romania	Υ	Υ	Υ	Υ	Υ
Slovenia	Y	Y	-	Y	Y
Spain	Υ	Υ	Υ	Υ	Υ
Sweden	Y	-	-	-	Y
United Kingdom	Y	Y	Y	-	Υ

^{*} Finland sent a response to explain why they would not report as their fishery is only in the Baltic and no sharks are caught.

4.2 Content of Country Reports

4.2.1 Required information in country reports

The current regulations under Regulation (EU) No 605/2013 require MS to provide annually by 1^{st} May:

- A comprehensive annual report on the implementation of the Regulation the previous year.
- The report should describe the MS monitoring of compliance by its vessels in EU and non-EU waters
- Enforcement measures taken in cases of non-compliance
- The number of landings of sharks
- The number, date and place of inspections carried out
- The number and nature of cases of non-compliance (including vessel details and penalty)
- The total landings by species (weight/number) and by port

4.2.2 Clarity of reporting requirements

A template is supplied for the reporting (Annex 2), but even so the Country Reports varied in the amount an quality of data supplied. This is likely a consequence of different interpretations of the regulation, as well as different levels of application by MS in reporting. The most notable differences were in the definition of which species should be reported and the reporting of landings and inspections.

4.2.2.1 Clarity in relation to the definition of the term 'shark'

^{**} Netherlands provided a preliminary report and will provide a full report later in 2019.

The MS would generally report on either (a) all elasmobranchs, (b) 'sharks', or (c) oceanic sharks (e.g. blue shark and shortfin mako). This would then influence the type of other information supplied (e.g. in terms of inspections).

The term 'shark' has different connotations and the terminology differs between the EU Finning Regulation and the Plans of Action.

- (1) Shark sensu stricto: Elasmobranchs can be differentiated into 'sharks' (currently encompassing nine taxonomic orders: Hexanchiformes, Heterodontiformes, Orectolobiformes, Lamniformes, Carcharhiniformes, Squaliformes, Echinorhiniformes, Pristiophoriformes, Squatiniformes) as opposed to 'batoids' (currently encompassing four taxonomic orders: Torpediniformes, Rhinopristiformes, Rajiformes and Myliobatiformes).
- (2) Plans of Action: In relation to plans of action for 'sharks, skates and rays', following FAO (1999), the European Community Action Plan for the Conservation and Management of Sharks (CEC, 2009) considers that 'shark' refers to all species in the class Chondrichthyes (i.e. the Elasmobranchii and the Holocephali).
- (3) Regulations on finning: Regulation (EU) No 605/2013 amending Council Regulation (EC) No 1185/2003 on the removal of fins of sharks on board vessels considers 'shark' to mean "any fish of the taxon Elasmobranchii" (Article 2 of Regulation 1185/2003), but that 'shark fins' means "any fins of sharks including caudal fins, but excluding the pectoral fins of rays, which are a constituent part of ray wings".

Whilst skates and rays (Order Rajiformes) are generally processed for their pectoral fins, and are so excluded from the regulation on the removal of fins of sharks on board vessels (Article 2), there is evidence from Southeast Asia that the shark-like rays in Order Rhinopristiformes have the highest value in the 'fin trade' (Dent & Clarke, 2015; Hau et al., 2018; Jabado, 2019; Kyne et al., 2019); and the giant guitarfishes and wedgefishes were listed in CITES Appendix II in 2019. EU vessels operating in the Mediterranean Sea and off West Africa may catch various members of the order Rhinopristiformes, but common guitarfish is a prohibited species in the Mediterranean, and all Rhinobatidae prohibited in most ICES areas. However, Regulations 605/2013 and 1185/2003 do not clarify what is considered to be a 'ray'.

What is generally unclear in all Country Reports were which species and corresponding FAO reporting codes had been considered in data extractions relating to landings and associated data. Developing an agreed list of FAO codes for consideration in Country Reports would help alleviate this problem in the future.

The variability in national reporting is to be expected given the potential for ambiguity in Article 6 of the current regulations.

 The regulation was adopted and formulated to prevent shark finning on board of vessels. Some MS have therefore focused attention to those fisheries/species for which it may be perceived that the Regulation was intended.

- The scope of the regulation (Article 1) states that the regulation will apply to the "...retention on board, transhipment and landing of sharks...". The term 'shark' is defined as any fish of the taxon Elasmobranchii (Article 2). Some MS have reported on all elasmobranchs.
- Article 2 also noted that the pectoral fins of rays are not considered as 'shark fins'. Some MS have reported on all sharks (i.e. excluded skates and rays).
- Although the Regulation does not provide for any exemption from reporting obligation, some MS stated that they had not sent in a report as they had no fishery in which sharks are caught.

These different perceptions have resulted in different ways of reporting by MS.

To achieve a clear view of the responses in relation to chondrichthyans that have fins in trade the EWG reviewed information on the species composition of the shark fin trade (Clarke et al., 2005, 2006; Holmes *et al.*, 2009; Chuang *et al.*, 2016; Fields *et al.*, 2018; Cardeñosa *et al.*, 2018, 2019) and defined a subset of shark that were considered to have saleable fins (see Table 4.3).

Table 4.3 provides a current taxonomic list of the main families of chondrichthyan fishes that are used in the fin trade, and their relative contributions to the fin trade (as studied in Hong Kong markets). While larger fins are of higher value than small fins, the international trade in small fins for inexpensive shark fin products is growing and already comprises 48% of the Hong Kong trade (Fields et al. 2017). The species composition of the trade in small fins is comprised of 63% small-bodied sharks (e.g. *Rhizoprionodon* and *Mustelus* spp.) and 37% from large species (the latter mostly suspected to be from juveniles) (Cardeñosa *et al.*, 2019). It is possible that the utilization of the fins of such taxa and age classes may increase in the future, which could be a consequence of finning regulations and improvements in 'full utilization'. A list of the current FAO codes for those chondrichthyan families that are considered to have marketable fins is provided in Table 4.3.

Table 4.3. Species and genera considered by the EWG to have saleable fins and percentage of retailed fins sampled in China. Source: Fields *et al.* 2017 (% all fins); Cardenosa *et al.* 2019 (% small fins).

			Percentage of retailed fins sampled in China	
Common name	Scientific name	FAO Code	All fins	Small fins
Pelagic thresher	Alopias pelagicus	PTH	0.40%	0.20%
Thresher sharks	Alopias spp.	THR		
Bigeye thresher	Alopias superciliosus	BTH	0.80%	-
Common thresher	Alopias vulpinus	ALV	0.04%	-
Spinner shark	Carcharhinus brevipinna	ССВ	1.20%	1.50%
Silky shark	Carcharhinus falciformis	FAL	10.01%	0.20%
Bull shark	Carcharhinus leucas	CCE	1.08%	1.10%

Blacktip shark	Carcharhinus limbatus	CCL	0.04%	10.70%
Sandbar shark	Carcharhinus plumbeus	ССР	0.23%	-
Spot-tail shark	Carcharhinus sorrah	CCQ	1.04%	10.90%
Carcharhinus spp.	Carcharhinus spp.	CWZ	3.95%	17.60%
Торе	Galeorhinus galeus	GAG	0.40%	-
Guitarfish / wedgefish	Glaucostegus / Rhinobatidae complex	GTF	0.66%	0.20%
Shortfin mako	Isurus oxyrinchus	SMA	2.77%	-
Longfin mako	Isurus paucus	LMA	0.08%	-
Mako	Isurus spp.	MAK		-
Porbeagle	Lamna nasus	POR	0.13%	-
Common smooth-hound	Mustelus mustelus	SMD	0.21%	0.20%
Smoothhound	Mustelus spp.	SDV	0.89%	-
Blue shark	Prionace glauca	BSH	34.00%	-
Milk shark	Rhizoprionodon acutus	RHA	1.38%	25.30%
Sharpnose sharks	Rhizoprionodon spp.	RHZ	1.19%	2.30%
Scalloped hammerhead	Sphyrna lewini	SPL	4.08%	16.2%
Great hammerhead	Sphyrna mokarran	SPK	0.85%	-
Bonnethead shark	Sphyrna tiburo	SPJ	0.06%	0.40%
Smooth hammerhead	Sphyrna zygaena	SPZ	3.44%	2.50%
Hammerheads	Sphyrna spp.	SPN, SPY		
Blackchin guitarfish	Rhinobatos cemiculus	RBC		
Common guitarfish	Rhinobatos rhinobatos	RBX		

The reports have been screened to see if it was possible to identify landings of sharks with marketable fins, but as it was not a mandatory requirement, this was not used in any of the analyses of the country reports.

4.2.2.2 Clarity in relation to the reporting of landings and inspections

In terms of the data provided, the EWG considered that the "number of landings of sharks" was the number of landings events in which sharks were present. Whilst this was generally reported, the accuracy of this was difficult to appraise given that Country Reports rarely defined the three-letter FAO codes considered in their analyses and reporting.

The EWG recognise that the term 'sharks' when relating to all elasmobranchs or sharks (sensu stricto) includes a large range of demersal species for which the fins may or may not be of relevance to the fin trade. Hence, the reporting of landings that were inspected by any MS can be considered to be very large if all landings are reported (at the scale of 100s or 1000s). In such cases it is clearly impractical to report the exact dates and places for each inspection in a National

Report. However, the Regulation makes no distinction between shark species relevant for the fin trade or not.

Furthermore, MS did not in general provide a breakdown of inspections per fleet segment, or in relation to a risk-based assessment of where sharks were likely to be part of the landing. For example, any given MS may report a large number of inspections, but it is uncertain as to what proportion of these would be regards those fleet segments and metiers catching sharks (or those sharks with marketable fins). Although this is not mandatory in the current Regulation, the EWG felt that this information would be relevant to give insight into the landings and inspections of the fleet segment actually catching sharks.

The requirement to report "the total landings by species (weight/number) and by port" is also ambiguous. It could be interpreted as total landings by species, and total landings by port separately, or as total landings by species by port. There is also uncertainty that the requirement to report total landings by number is number of fish or number of landing events. These ambiguities led to a range of responses that differed among MS responses.

4.3 EWG assessment of the Country Reports

4.3.1 Introduction

The country reports were analysed according to the requirements of the Finning Regulation as stated in 4.2.1 above. During this analysis the EWG came up with a number of extra questions and issues which were considered by the group as being relevant for evaluating how the EU Finning Regulation has been implemented. Although these were not mandatory to the Regulation, they are intended to provide information to assess data and reporting gaps, the overall quality of the reports and to identify any reporting shortcomings, as specified in the Term of Reference. It addresses the issues described in previous sections such as how to distinguish between EU vessels fishing both within and outside EU waters, how the EU Finning Regulation is implemented and enforced in the long-distance fleet, and how to identify which fleet segment has been inspected or what percentage of the fleet has been inspected to ensure that the fleet segment actually responsible for shark catches have been inspected, even though this may not be a mandatory reporting requirement at the present time. The list of questions and their rationale are in Table 4.4.

Table 4.4 Overview of questions the EWG developed to evaluate the finning reports. The questions in italics are those that are additional to the mandatory reporting requirements but considered relevant to help assess data and reporting gaps, the overall quality of the reports and to identify any reporting shortcomings.

#	Questions	Response Guidance	Response	Comment	Question Logic
	A: General				
i	Nation	Three letter code			Country responding
ii	Does the EWG consider that this nation has fisheries with the potential to catch any shark species in EU mainland waters	Yes/No/Uncertain			This confirms the likelihood that the reporting country is active in shark capture/landings inside of EU mainland waters
iii	Does the EWG consider that this nation has fisheries with the potential to catch any shark species in other waters	Yes/No/Uncertain			This confirms the likelihood that the reporting country is active in shark capture/landings outside of EU mainland water, like territorial waters or waters of other countries through high seas fleets
iv	Reporting year	Value			Year of reporting
V	Year(s) covered (please use one column per year if possible)	Value			Year(s) that fishing occurred
vi	Report submitted	Yes/No			Was a report submitted by the country? A report is defined as a document containing information related to fishing and the landing of fish, inspections and information on compliance. In this case a short email to say that the regulation has no relevance to the state does not constitute a report.
vii	Did the Member State (MS) state that there was no relevant shark catch requiring reporting?	Yes/No			Was there a country claim that no sharks with saleable fins were caught by the countries fishing fleet
	B: Landings			T	
i	Landing events (Number) of all sharks. If not reported then NR	Number			Enter the total number of landing events reported
ii	Landing events (Number) sharks with marketable fins. If not reported then NR	Number			Enter the total number of landing events which included sharks with marketable fins if they were reported or can be calculated from the information made

#	Questions	Response Guidance	Response	Comment	Question Logic
			-		available
iii	Landings (t) of all sharks If not reported then NR	Value in tonnes			Weight of landings of all sharks. Tonnes should be written as 0.000
iv	Landings (t) sharks with marketable fins. If not reported then NR	Value in tonnes			Weight of landings of sharks that have marketable fins (marketable sharks list see Table 4.3). Tonnes should be written as 0.000
V	Were total landings of species by weight reported?	Yes/No			Was this given in the report or could it be calculated
vi	Were total landings of species by number reported?	Yes/No			Was this given in the report or could it be calculated by adding the number of shark landed together (i.e. not doing a weight to length conversion)
vii	Were the total landings by port reported?	Yes/No			Has the landings data been reported across ports – this does not mean all ports, but that has the landings information been partitioned across receiving ports
viii	Were total landings by species and by port reported?	Yes/No			Was the same information as above also partitioned by shark species
ix	In order to understand division of landings across EU and other ports - were total landings data from EU vessels landing into EU mainland ports reported?	Yes/No			This question and the following two questions (x & xi) allow the landings from EU flagged vessels that should be following the finning regulations to be partitioned between those made to EU mainland ports, those made to EU outermost region ports, and those made to other ports
х	In order to understand division of landings across EU and other ports - were total landings data from EU vessels landing into EU Outermost Regions (OMR) ports reported separately or was it stated that no fishing occurred? E.g. Azores, Madeira	Yes/No			This identifies if EU flagged vessels landing to EU outermost region ports were reported. If reported, this means that this geographical component of the landing activity was described and the full interaction of the EU fleet with shark can be assessed.

#	Questions	Response Guidance	Response	Comment	Question Logic
xi	In order to understand division of landings across EU and other ports - were total landings data from EU vessels from Long Distant Fisheries (LDF) landing into other ports reported separately or was it stated that no fishing occurred?	Yes/No			This identifies if EU flagged vessels landing other ports was reported. If reported, this means that this geographical component of the landing activity was described and the full interaction of the EU fleet with shark can be assessed.
	C: Compliance (Inspection)				
i	Inspections (N)	Number			This lists the total number of inspections carried out, which when twinned with landings data, can give an indication of the surveillance level that fleets are subject to.
ii	Was the number of inspections reported?	Yes/No			This is added as it supplies a yes/no response to the question of whether inspection abundance data was supplied
iii	Were the dates provided?	Yes/No			Have the dates of individual inspections been given – these dates could be used to retrospectively track the individual inspections but also to allow the reviewer to ascertain if the temporal spread of the inspections reflects the timing of activity of the fishery.
iv	Were the places of the inspections provided?	Yes/No			Have the places of individual inspections been given – these locations could be used to retrospectively track the individual inspections but also to allow the reviewer to ascertain if the geographical spread of the inspections reflects the activity of the fishery.
V	Number of port inspections? If not reported then NR	number			This question and the following two questions (C vi & vii) allow the inspections of EU flagged fishing activity to be partitioned between those made at ports, those made at sea, and those made at other locations. Such a partition alerts the reviewer to the comprehensiveness of inspection activity and reporting.
vi	Number of at sea inspections? If not reported then NR	number			This identifies if EU flagged vessels were inspected at sea. If reported, this means that on-

#	Questions	Response Guidance	Response	Comment	Question Logic
					going fishing activity as well as landings are being assessed.
vii	Number of inspections carried out elsewhere, e.g. markets, transport? If not reported then NR	number			This identifies if EU shark fishery value chain inspections are being conducted. These are of limited value in checking the finning regulations of the EU, however they may add value in certain circumstances.
viii	Number of other EU vessels inspected. If not reported then NR	number			Are vessels of other EU country vessels noted in the inspection report and can their number be summed? This question allows the reviewer of the report to ascertain if there may be double reporting of inspections of EU vessels — that are potentially reported by both the inspecting and inspected states — which would result in over-estimation of the inspection coverage.
ix	Number of non-EU vessels inspected. If not reported then NR	number			Have EU authorities inspected non-EU vessels in EU waters for compliance with EU finning regulations
Х	Is the inspection coverage of the fleet segment (gear, boat length, area fished) described or can it be calculated from the available information?	Yes/No/partially			This question finds out whether information is available to retrieve a greater and more detailed understanding of the vessels inspected, to allow a reviewer to assess the range of the fleet coverage of inspections.
хi	Were any inspections for MS vessels landing outside EU ports or in Outermost regions reported?	Yes/No			This gives a yes no response to understanding if fishing and landings outside of EU mainland waters and ports were inspected.
	D: Compliance (enforcement and prosecution)				
i	Was there a response to the question on non-compliance?	Yes/No			Was non-compliance (enforcement and prosecution) part of the report
ii	Cases of non- compliance with the Finning Regulation (N). Fill in NR if no response was given to the question above on non-compliance.	Number			Was the number of cases of non-compliance with the Finning Regulation described

#	Questions	Response Guidance	Response	Comment	Question Logic
iii	If there were no cases of non-compliance put NA (not applicable); otherwise, was the nature of the case(s) of non-compliance reported? Fill in NR if no response was given to the question above on non-compliance.	Yes/No			These questions (D iii, iv, v) try to describe more the type of non-compliance that had occurred.
iv	Was/were the vessel(s) concerned fully identified? If there were no cases of noncompliance fill in NA (not applicable). Fill in NR if no response was given to the question above on noncompliance.	Yes/No			This question describes the level of reporting by individual vessel(s).
V	Was the penalty applied for each case reported? If there were no cases of noncompliance fill in NA (not applicable). Fill in NR if no response was given to the question above on noncompliance.	Yes/No			This question describes the id information was available on the prosecution of non-compliance offences.
	E: Closing Comments				
i	Other comments				Space for any further comments to be added by the reviewer of the finning compliance report

4.3.2 Method adopted for the assessment

The EWG developed a matrix to examine the country responses received. This matrix analysed the mandatory requirements such as landing, inspection and compliance related components of the shark finning regulation reports and is intended to give a structured overview of how the countries have implemented the Regulation. Based on this matrix a scoring system was developed to objectively assess these requirements as shown in Table 4.5.

Table 4.5 Scoring on report quality according to the requirements of Regulation (EU) No 605/2013 of the European Parliament and of the Council of 12 June 2013. * if there was no case of non-compliance, scored as 1; ** In some instance the process is not finalized, but information on the status is provided. If there was no case of non-compliance scored as 1

Item	Score	Comments	
1.The number of lan	dings of sharks		Weight: 25%
1.1-Number of landings reported	0/1	 Non-reported Reported 	
2.the number, date carried out	Weight: 25%		
2.1-Number of inspections reported	0/1	 Non-reported Reported 	
2.2-Date of inspections reported	0/1	 Non-reported Reported 	
2.3-Place of inspections reported	0/1	Non-reported Reported	
3. The number and detected, including and the penalty ap	Weight: 25%		
3.1-Number of cases of non-compliance reported	0/1	 Non-reported Reported 	
3.2-Vessel fully identified*	0/1	Non-identified Identified	
3.3-Penalty applied for each case reported**	0/1	0. Non-reported 1. Reported	
4.the total landings	s by species (weigh	nt/number) and by port	Weight: 25%
4.1-Total landings provided by weight	0/1		
4.2-Total landings provided by number	0/1		
4.3-Total landings provided by species and port	0/1/2	No information Landings by port	t

4.3.3 Summary description of Country Reports

With the information provided the EWG analysed the numerical data using an R-code developed in the group to assess an present an overview of the mandatory reporting requirements: reported catch, number of landings, number of inspections and number of cases of non-compliance. When interpreting this information it should be taken into account that these are based on what was reported per MS per year. As can be seen from the number of reports that the EWG received for analysis, not all countries reported every year.

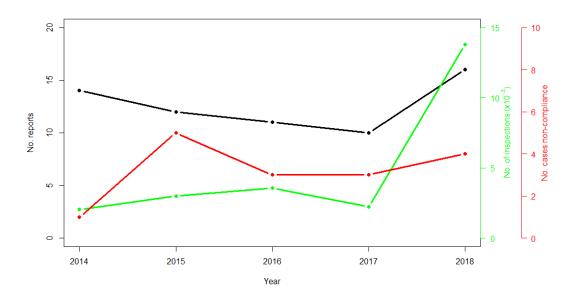


Figure 4-1: Total numbers of reports, inspections and cases of non-compliance for the years 2014-2018 (reported in 2015-2019).

In 2016 an evaluation of the Finning Regulation was carried out (EC, 2016) 29 . The results are shown in Table 4.6 of the present EWG report, which is Table 2 in the Annex of the report (EC, 2016). The same information is presented for the current evaluation in Table 4.7 for the years 2015-2018.

²⁹

Table 4.6 Coastal Member States' reporting in 2013 and 2014 (reported in 2014 and 2015) under the new Regulation (EU) 605/2013. From

	2013				2014			
	Landings	Landings	Inspections	Cases	Landings	Landings	Inspec-	Cases
	(no.)	(tonnes)	(no.)	(no.)	(no.)	(tonnes)	tions (no.)	(no.)
Coastal Member St	ates that had	issued special	fishing permits	in the pas	t (ordered by	total number	r of permits)	
Spain	26,394	61,572	204	1 b	32,082	59,251	131	0
Portugal	5,632	8,218	676	0	no report si	ubmitted ^c		
United Kingdom	8,572	289	1,025	1	14,313	1,634	1,184	1
Germany	10	0.3	6	0	25	1.8	7	0
Lithuania	0	0	0	0	0	0	0	0
Estonia	0	0	0	0	3 e	246 e	3	0
Cyprus	381	3.9	3	1	312	11.2	0	0 ^f
Coastal Member St	ates that had	not reported o	r issued specia	l fishing pe	ermits in the p	ast (ordered	alphabeticall	(v)
Belgium	4,783	483	102	0	n/a	527	83	0
Bulgaria	247	31	81	0	no report si	ubmitted ^c		
Croatia	no report su	bmitted ^c			no report submitted c			
Denmark	428	21	29	0	no report si	ubmitted ^c		
Finland	0	0	0	0	0	0	0	0
France	261,040	16,085	480	1 d	no report si	ubmitted ^c		
Greece	report incom	nplete ^c			179	$(3,630)^g$	0	0
Ireland	4,310	1,367	1,490	0	4,303	1,437	1,274	0
Italy	no report su	bmitted ^c			no report si	ubmitted ^c		
Latvia	0	0	0	0	0	0	0	0
Malta	345	20	291	0	no report si	ubmitted ^c		
Netherlands	n/a	79 ^h	0	0	n/a	77 h	0	0
Poland	0	0	0	0	0	0	0	0
Romania	no report su	bmitted ^c			no report si	ubmitted ^c		
Slovenia	457	1.7	27	0	444	1.9	46	0
Sweden	0	0	0	0	0	0	0	0
Total	312,599	88,170	4,414	4	51,661	63,186	2,728	1

Notes: ^b Case related to a vessel under the flag of another Member State. ^c Member States that did not submit reports or that submitted incomplete had been requested by the Commission to provide the missing information but did not do so before the finalisation of this report. ^d Case related to a vessel under the flag of a third country. ^e In its report for 2014 Estonia had also included two landings in 2015, which were not considered in this report. Estonia reported and confirmed the landing of 231 tonnes of rays by one of its vessels on one day alone. ^f Cyprus reported three cases, but these related to the landing of prohibited species, not to finning. ^g Greece reported the number of landed sharks, not their weight; their data has therefore not been taken into account for the other tables and figures. ^h The Netherlands did not report the number of landings; their data has therefore not been taken into account for the other tables and figures.

Table 4.7 Coastal member states reporting under the Finning Regulation between 2015 and 2018 based on reports (2016-2019) supplied to the EWG. NR = no report submitted; - = no information provided in the report.

Year			015	•	ort Subiiii	201					17			20	18	
Country	Landings No	Landin gs tonnes	inspectio ns	Cases of non- complian ce	Landings No	Landing s tonnes	inspecti ons	Cases of non- complia nce	Landing s No	Landing s tonnes	inspecti ons	Cases of non- complia nce	Landing s No	Landing s tonnes	inspecti ons	Cases of non- complia nce
Belgium	-	741	29	0	-	618	30	0	-	646	31	0	-	558	24	0
Bulgaria	186	133	33	0	128	83	42	0	115	50	48	0	26	10	26	0
Croatia	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cyprus	343	2	-	-	929	3	-	-	952	2385	-	-	998	1801	-	-
Denmar k	647	30	51	0	636	27	31	0	713	42	31	0	585	31	27	0
Estonia	8	51	13	0	NR	NR	NR	NR	NR	NR	NR	NR	7	99	21	-
Finland	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
France	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	137,00 0	21,882	799	0
German y	27	1	16	0	29	4	15	0	-	10	6	0	-	3	9	0
Greece	-	100	-	-	-	314	-	-	NR	NR	NR	NR	NR	NR	NR	NR
Ireland	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	-	0,12	-	-
Italy	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Latvia	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lithuani a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Malta	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Netherla	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	57	246	-	-

nds																
Poland	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Portugal	4415	9,988	1067	2	4203	16,702	1336	2	4574	14,570	1682	2	3595	14,552	1119	0
Romania	23	13	15	2	20	3	20	0	24	2	28	0	10	0,5	12	0
Slovenia	746	3393	-	-	NR	NR	NR	NR	578	2554	-	-	574	1931	1	0
Spain	35,801	31,49 9	282	0	36,982	31,133	303	1	39,549	56,898	367	1	41,603	50,934	708	2
Sweden	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0	0	1	0
United Kingdom	12,197	2206	1108	1	14,056	2455	1786	0	NR	NR	NR	NR	11,854	2951	11,021	0
Totals	54,393	48,15 7	2614	5	56,983	51,342	3563	3	46,505	64,044	2193	3	196,30 9	94,999	13,768	2

The total reported **landings** (**number per year**) averaged around 90,000 (average 88,548 landings per year $\pm 36,000$ SE) in the four new reporting years 2015-2018. In the two years reported in the previous assessment around 180,000 were reported. Years are not easily comparable as can be seen by the high variation; France's reports, that occurred twice over the reporting period (2013 and 2018) markedly increased the overall number.

The total **catches weight** (**tonnes per year**) reported over the new reporting assessment period (2015-2018) was around 50-95 tonnes (average 64,636 tonnes per year $\pm 10,687SE$) and did not change considerably over the two reporting periods.

Total **inspections** (**number per year**) showed a varying trend (average 5,535 per year $\pm 2,759$ SE), but increased significantly in 2018 owing to a 10-fold increase in inspections being carried out by Great Britain.

As mentioned previously, not all MS reported in the same manner, and not all MS reported each year and therefore the values listed offer limited scope for comparison across MS or time.

There were 14 cases of reported non-compliance from four countries in the reports evaluated for the period 2014-2018. In all cases the nature of the non-compliance was reported as being in contravention to the Finning Regulation and in the majority the vessel was identified. The penalty was not always clear because the case might still be pending at the time of the report. See Table 4.8.

Table 4.8. Reported cases of non-compliance from the country reports available to the EWG.

	Year	Number of cases of non-compliance	Nature of cases of non-compliance reported	Were the vessels fully identified	Was the penalty applied for each case reported
Portugal	2015*	2	Yes	Yes	No
	2016**	2	Yes	Yes	No
	2017***	2	Yes	Yes	No
	2018^	0	Yes	Yes	No
Romania	2015	2	Yes	Yes	Yes
Spain	2016	1	Yes	Yes	Yes
	2017	1	Yes	No	No
	2018	2	Yes	Yes	No
United	2014^^	1	Yes	Yes	Yes
Kingdom	2015	1	Yes	No	Yes

^{*2} cases reported not solved

Interpreting the numbers of inspections and non-compliances is compounded by the fact that the increase in inspections in 2018 is due to one MS (GBR) which carried out a much higher number in that year than previous years (see also Figure 4.4). Moreover, the level of non-compliances reported is dependent on factors such as a stronger surveillance effort. However, it is clear that the level

^{** 2} new cases (1 solved, 1 not solved); 1 case from 2015 not yet solved

^{*** 2} new cases, 1 from 2017 and 1 from 2015; case from 2015 not yet solved; 1 from 2015 and 1 from 2016 solved;

[^] No new cases; 1 from 2015 solved; 1 from 2017 not solved

^{^^} Non-compliance related to processing of smooth-hounds on board, whereby the trunks were being landed

of non-compliance is very low, being at total of 14 cases out of 24591 inspections.

The results are also presented as Figures 4.2-4.4.

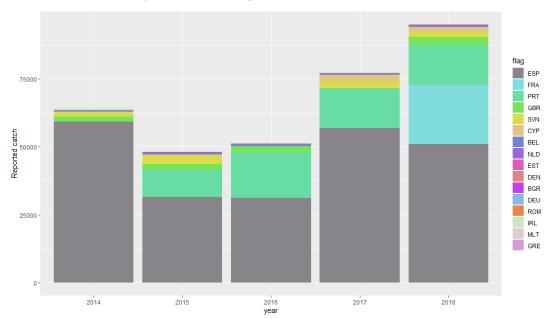


Figure 4-2: Total amount of reported catch (tonnes) of sharks for the years 2014-2018 (reported 2015-2019).

Taking the caveat presented above into account, it is clear that two or three countries have the highest catches of sharks. France did not report in the years 2014-2017.

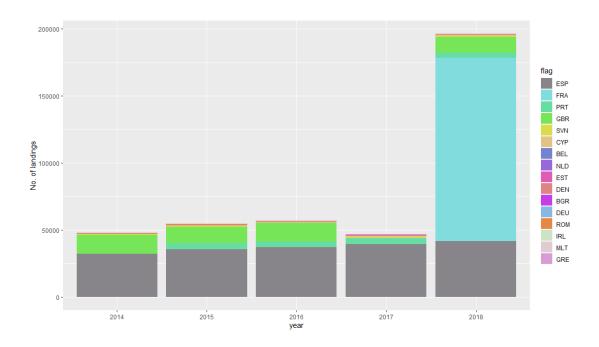


Figure 4-3: Total numbers of landings of sharks for the years 2014-2018 (reported 2015-2019).

The reported landings for Spain and Portugal appear reasonably consistent across the years reported. France did not submit a report for the years 2014-2017.

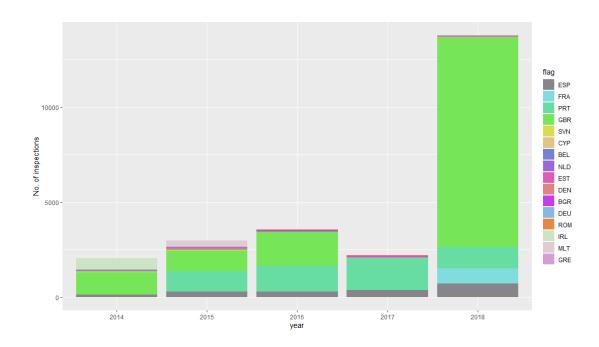


Figure 4-4: Total number of inspections for the years 2014-2018 (reported 2015-2019).

There is some consistency in numbers of inspections for a number of countries, but the large increase in 2018 is due to high numbers of inspections from GBR and France (which only submitted a report in 2018).

4.3.4 Quality, gaps and shortcomings

Of the 23 MS with marine fisheries who could report on the Finning Regulation five did not sent in any reports for the period 2014-2018 (Croatia, Finland, Italy, Malta and Poland) and seven reported each year (Belgium, Cyprus, Denmark, Germany, Lithuania, Romania and Spain). When measured against the reporting requirements the landings in tonnes were reported in all the reports and the numbers of landings were almost always reported (Table 4.6). From the countries who did report, three (Cyprus, Greece and Netherlands) did not note the number of inspections and Slovenia only noted this information once.

The scoring per country shown in Figure 4.5 is based on the criteria presented in Table 4.5, for countries which reported at least once and were considered by the EWG to interact with sharks. Denmark, Spain, Cyprus, Germany and Portugal show consistent reporting and comply well with what is asked for in the Regulation. Other countries are less consistent in their reporting and/or did not supply a report for one or more of the years considered.

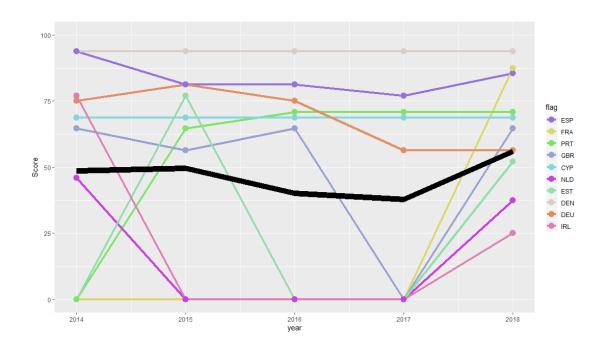


Figure 4-5: Score per country for the years 2014-2018 based on the criteria in Table 4.2. Countries are included which reported at least once and were considered by the EWG as interacting with sharks. Black line = average per year.

The EWG considers that this scoring methodology has the potential to identify trends in reporting. However, the discrepancies seen in the annual reporting per country, and the fact that some of the requirements laid down in Regulation 605/2013 are difficult to evaluate quantitatively (e.g., description of the monitoring, enforcement measures, etc) lead the EWG to suggest that development of indicators might assist in further development of the methodology.

The EWG noted that whilst some countries provided the information requested in the Template provided, others did not provide all information. In most cases missing information was on inspections and compliance (Table 4.7).

The high level of compliance observed cannot, however, be taken as a complete overview of the fishing activity of the EU fleet within and outside EU waters as required in the Regulation. An analysis of the reported data from one MS (which has been anonymised) shows that the more than 70% of the landings occurred outside EU waters and that the inspections carried out by the MS and reported (since there can be additional inspections in non-EU ports, but not available to the EWG) were only carried out in EU ports (Table 4.9).

Table 4.9.- Main landing ports, and number of inspections, from one MS report in 2019.

Port	Inside/Outside EU waters	% of total catch	No. Inspections
A	Outside	17.82	0
В	Inside	17.44	28
С	Outside	15.98	0
D	Outside	7.29	0
E	Outside	7.24	0
F	Outside	7.08	0
G	Outside	5.53	0

This lack of coverage in waters outside the EU and lack of information on the fleet segment catching sharks were seen by the EWG as a shortcoming as this was reason for the EWG to examine the distribution of the EU fleets and the fishing practice per fleet segment in greater detail (Chapter 4.4)

4.4 Fisheries with potential to catch shark species within and outside EU waters - fleet distribution and fishing practice

4.4.1 Introduction

Two of the questions that the EWG developed for the analysis of the annual finning reports were:

- Does the EWG consider that this nation has fisheries with the potential to catch any shark species in EU mainland waters?
- Does the EWG consider that this nation has fisheries with the potential to catch any shark species in other waters?

EWG 1917 has reported three main data sources where information on sharks' landings collected have been mentioned: Annual Economic Report (STECF)³⁰ which is based on DCF data, FAO FishStatJ³¹ and ACDR (Aggregated Catch Data Report system)³² datasets, collecting Member States fisheries landings. These

FAO. 2019. Fishery and Aquaculture Statistics. Global capture production 1950-2017 (FishstatJ). In: FAO Fisheries and Aquaculture Department [online]. Rome. Updated 2019. www.fao.org/fishery/statistics/software/fishstatj/en

³⁰ JRC 2017. Joint Research Centre, Annual Economic Report on the EU Fishing Fleet, 2017 AER http://stecf.jrc.ec.europa.eu/reports/economic

three data sources have different segmentation levels (by vessels, by species, by areas...) and could be used on complementary approaches (cf. Table 4.7 for summary of the variables and Annex 3 for description of AER, FAO and ACDR data sets). However, EWG 1917 was lacking time and human resources to perform a valuable analysis of ACDR data set, then the following chapter focuses only on DCF and FAO data.

Table 4.7: Summary of the variables for the three main dataset sources for 'marketable fins' sharks landings. DCF = Data Collection Framework; ACDR = Aggregated Catch Data Report system.

Tables	DCF	FAO	ACDR	
Data	MS data collection framework	From 1996, the Global Capture production and the Global Aquaculture production data.	Catches under the annual EU TAC and Quotas regulations*,**	
Years	2008- 2017	1950-2017	2012-2018	
Supra- region	Yes	Yes	Yes	
Region	Yes	Yes	No	
Country	Yes	yes	Yes	
Fleet segments	yes	No	No	
Gear	Yes	No	Yes	
Weight	Yes	Yes	Yes	
Value in Euros	Yes	No*** No		
Species	Yes	Yes	Yes	

^{*} except for bluefin tuna (BFT), southern bluefin tuna (SBF) and Chilean jack mackerel (CJM) stocks, as well as stocks under EU-Greenland SFPA agreement.

^{**} There are 5 ACDR datasets which include data on species not subject to Quota regulations (e.g., ACDR-FISHING-CAT; ACDR-OTHER. See page 5 on https://circabc.europa.eu/webdav/CircaBC/MARE/IFDM%20DEL/Library/Business %20Layer/FLUX-P1000/P1000-

^{12 %20}Aggregated%20Catch%20Data%20Report%20domain/EU/v1.1/ACDR% 20V1%20ImplDoc v10.docx.pdf

^{***} The values and quantity from economic view can be seen in the Commodities dataset, it is not species specific, but at commodity level e.g. "shark fins" different.

³² Legal basis - Article 33 of the Council Regulation (EC) No 1224/2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, as amended by Regulation (EU) 2015/812

However, missing data for Spain and France have been noticed in the DFC dataset for 2008 and 2009.

See Annex 3 for more detailed description on available variables for these datasets.

For this analysis, EWG agreed on a list of 'fin marketable' shark genus and/or species (Table 4.3). The following analysis is based on the extraction of the landing data available for this 'fin marketable' list for both FAO and DCF datasets. For the purpose of the analysis the EWG also considered as a proxy that all areas outside area 27 and area 37 are considered 'outside EU waters' and consequently that areas 27 and 37 combined being 'EU waters'.

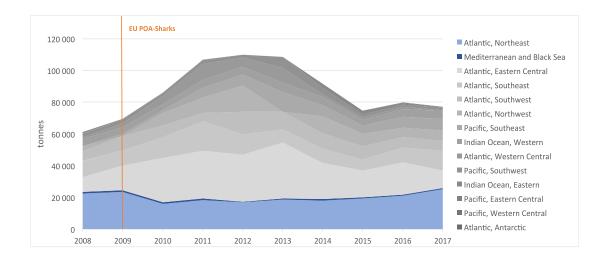


Figure 4-6: FAO Capture Production by FAO Major Fishing Areas in tons EU Countries fishing in (blue areas) and outside EU waters (grey areas) "fin marketable" shark species (2008–2017)

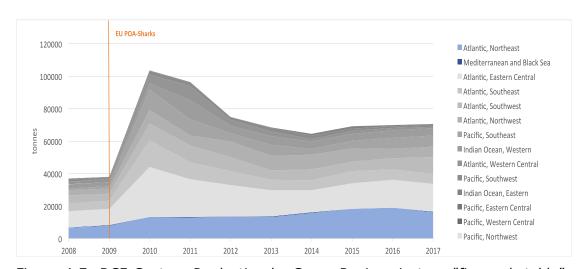


Figure 4-7: DCF Capture Production by Supra-Regions in tons "fin marketable" sharks species (2008–2017) -EU 'proxy' fishing areas in blue areas and outside EU waters 'proxy' in grey -

According the data available 70% of 'fin marketable' sharks landings by EU vessels comes from fishing areas located in Atlantic Ocean. In 2017, upon FAO

and DFC datasets the main fishing area is the Eastern Central Atlantic (34) representing 24%** of the overall 'fin marketable' sharks landings followed by Northeast Atlantic (27) with 23%**, Atlantic Southwest (41) with 14%**, then Atlantic Northwest (21) with 9,1%**, and Atlantic Southeast (47) with 8,6%** Fishing areas in Pacific Southeast (87) represent 9,6%** of the total 'fin marketable' sharks landings, Western Indian Ocean (51) with 6,3%**, Pacific Southwest (81) 2,1%** and Atlantic Western Central (31) 1,2%**. FAO and DCF data have been available respectively since 1950 and 2008 for most species but not all, e.g. Carcharhiniformes are available only from 1978. The relative trends look similar for the two datasets, even if following the DCF dataset the maximum landings of about 100 000 tons was reached in 2010 and from the FAO dataset, values of about 110 000 correspond to the period 2011-2013. We can remark that since 2009, fin marketable sharks landings declared have increased; this increase is mainly link to the increase of blue sharks caught outside of EU Water (see 4.4.3). This situation could be related to various reasons and was not able to be clarified within the time and expertise of the EWG. Ranking the FAO Major Fishing Areas based on the average values of the last 10 years, in and outside EU waters, the two datasets show a similar ranking order and very comparable values.

4.4.2 Analysis by species

In 2017, 65,196 tons of blue shark, were declared by EU Members to FAO, accounting for 84.6% of the 'marketable fins' sharks' species. The second and third more abundant species in the statistics were shortfin mako (6,535 tons; 8.5%), and smooth-hounds (3,448 tons; 4.5%). 13 of the selected marketable fins' sharks' species are declared to FAO at species level, the remaining at genus level (3) and at family level (3).

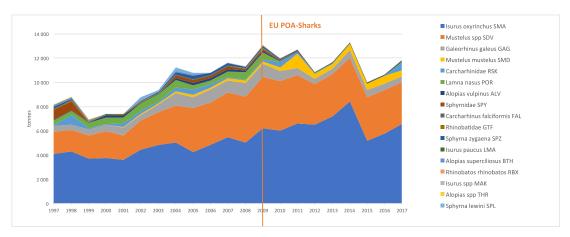


Figure 4.8: FAO Capture Production by Species, excluding blue shark (see Fig 4.9) EU Countries fishing in and outside EU waters "fin marketable" shark species (1997–2017)

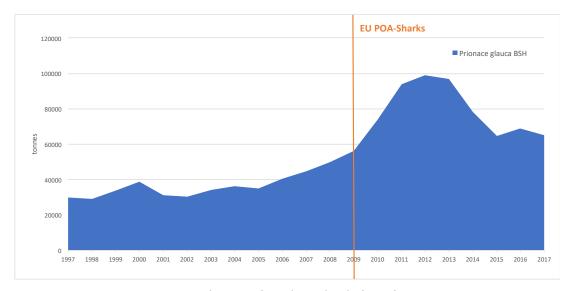


Figure 4.9: FAO Capture Production for Blue Shark (BSH)

EU Countries fishing in and outside EU waters "fin marketable" shark species (1997–2017)

List of species landed and the 8th or 10th first species

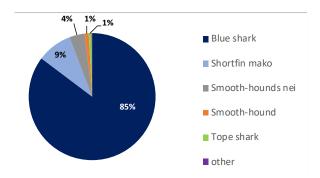


Figure 4.10: Distribution of the 7^{th} most important Species by weight (in tons) in 2017 (DCF data)

EU Countries fishing in and outside EU waters - "fin marketable" shark species

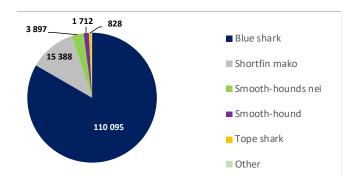


Figure 4.11: Distribution of the 8th most important Species by values (in K Euros) in 2017 (DCF data)

EU Countries fishing in and outside EU waters - "fin marketable" shark species

It is worth noting that the selection of smooth-hounds as 'marketable fins' sharks' species is an EWG choice based on studies about the composition of shark species in the Hong Kong market and mentioning the presence of the species (at genus level). However, smooth-hounds are important species for European fleets and in European countries they are likely to be more profitable for the meat than for the fins; thus, it might not to be considered, in a first instance as a good indicator for evaluating the impact of the fin attached policy by EU countries on shark populations. However, considering that the fins of small sharks (e.g. Mustelus spp.) are also used in the fin trade and it is possible that the utilization of the fins of such taxa may increase in the future, which could be a consequence of finning regulations and improvements in 'full utilization' they included have been in the current analyses.

Table 4.8: FAO CAPTURE PRODUCTION by Species in tons. EU Countries fishing in and outside EU waters - "fin marketable" shark species (1997–2017)

Scientific name	3A_CODE	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average R	ank
Prionace glauca	BSH	30131	29200	33574	38760	31272	30190	34126	36409	35022	40602	44944	49776	56335	74097	94125	99166	96913	78294	64678	69014	65196	74759	1
Isurus oxyrinchus	SMA	4 108	4 296	3 681	3 756	3 583	4 461	4 853	5 020	4 231	4 819	5 468	5 016	6 187	6 027	6 611	6 520	7 182	8 415	5 168	5 788	6 535	6 345	2
Mustelus spp	SDV	1 789	1 758	1 942	2 187	2 056	2 387	2 692	3 040	3 645	3 511	3 692	3 825	4 237	4 068	3 968	3 339	3 507	3 624	3 575	3 546	3 448	3 714	3
Galeorhinus galeus	GAG	511	427	464	570	597	466	629	1 054	895	1 077	968	1 084	1 091	818	622	431	458	606	599	552	519	678	4
Mustelus mustelus	SMD				15	76	56	85	139	200	163	206	198	229	310	1 163	380	387	547	567	674	499	495	5
Carcharhinidae	RSK	43	810	104	44	307	270	151	310	418	290	113	79	127	439	130	31	29	0			610	181	6
Lamna nasus	POR	412	339	465	545	496	657	607	643	372	282	432	656	569	79	10	89	13	2	3	1	44	147	7
Alopias vulpinus	ALV	43	52	50	152	171	47	47	151	184	215	206	132	170	51	43	34	55	48	44	37	60	67	8
Sphyrnidae	SPY	808	746	12		9	15	9	243	271	192	232	109	133	2	2							62	9
Carcharhinus falciformis	FAL	2	11				31	4	16	28	28	48	23	78	132	162	22	0	0			2	52	10
Rhinobatidae	GTF	63	87	73	94	89	52	32	41	24	34	32	43	38									41	11
Sphyrna zygaena	SPZ	220	103	9	22	10	30	106	194	289	156	183	98	120	54	0	0		2	1			39	12
Isurus paucus	LMA									2	1		1		1			19	63	42	39	86	36	13
Alopias superciliosus	BTH	149	114	80				0	76	59	5	22	27	76	0								34	14
Rhinobatos rhinobatos	RBX																				2	27	15	15
Isurus spp	MAK	0	0	0	0	0	0	0	0		2	0	13	13	0	0	0	0	0	0	0	0	3	16
Alopias spp	THR	34	55	66					1	0	0	0	9	5	2	1	1	1	2	2	3	0	3	17
Sphyrna lewini	SPL						290	139	317	148	31	25	4	12	0	0	0	0	0	0	0	0	2	18
Total																								

^{*}Ranked based on the average of the last 10 years available: 2008-2017

Table 4.9: FAO CAPTURE PRODUCTION by Areas. EU Countries fishing in and outside EU waters - "fin marketable" shark species (1997–2017) (tons)

	FAO Major Fishing Areas	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average	Rank
EU	Atlantic, Northeast	14 758	15 588	16 770	19 657	14 054	13 546	15 332	16 140	13 167	14 787	21 213	22 522	23 439	15 947	18 490	16 784	18 578	18 118	19 428	21 007	25 181	19 949	1
EU	Mediterranean and Black Sea	1 332	1 112	1 134	1 203	911	807	788	1 104	1 350	1 266	1 030	922	1 125	861	800	617	644	1 035	753	718	852	833	2
	Atlantic, Eastern Central	13 222	11 355	10 472	10 576	9 671	9 353	10 423	12 172	9 975	9 161	7 631	9 385	15 528	27 961	30 059	29 491	35 444	22 821	16 761	20 571	11 025	21 905	1
	Atlantic, Southwest	2 245	2 361	2 261	3 120	4 999	3 630	3 728	5 712	5 358	6 187	7 665	10 176	9 835	13 275	18 725	13 042	8 199	8 815	7 093	9 042	12 219	11 042	2
	Atlantic, Southeast	4 606	4 471	6 337	7 408	6 419	4 317	5 314	4 363	5 211	6 955	7 792	5 980	8 743	7 131	5 339	14 051	11 117	9 653	8 026	6 664	6 493	8 320	3
	Atlantic, Northwest				179	0	8	57	0	1 366	1 615	101	2 794	89	8 241	9 419	16 411	103	10 737	8 182	5 770	6 537	6 828	4
	Pacific, Southeast	330	1 753			11	2 959	1 338	1 648	1 085	1 107	922	513	1 280	1 666	6 292	6 887	12 458	6 863	5 060	7 173	7 152	5 534	5
OFR	Indian Ocean, Western	43	888	3 544	4 002	2 601	3 939	4 206	3 617	5 530	6 465	5 045	4 646	4 191	3 785	4 785	5 080	5 749	5 140	3 462	4 774	5 143	4 676	6
UFK	Atlantic, Western Central	1 777	470				159	66		1 426	2 084	2 173	956	2 391	5 239	10 241	5 788	9 298	1 890	1 658	1 431	548	3 944	7
	Pacific, Southwest	0	0	0	0	0	0	0	375	112	789	1 787	2 328	2 440	1 428	2 298	1 629	6 741	4 185	1 762	1 377	1 518	2 571	8
	Indian Ocean, Eastern	0	0	0	0	0	234	2 228	2 523	1 208	992	1 212	870	358	546	389	233	157	2 297	2 478	1 067	350	875	9
	Pacific, Eastern Central	0	0	2	0	0	0	0	0	0	0	0		1				74	48	16	25	7	29	10
	Pacific, Western Central	0	0	0	0	0	0	0	0	0	0	0	0	0	0			2	1	0	37	1	5	11
	Atlantic, Antarctic	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	12
	Total marketable shark for fins	38 313	37 998	40 520	46 145	38 666	38 952	43 480	47 654	45 788	51 408	56 571	61 093	69 420	86 080	106 837	110 013	108 564	91 603	74 679	79 656	77 026		

^{*}Ranked based on the average of the last 10 years available: 2008-2017

Table 4.10 DCF CAPTURE PRODUCTION by Areas. EU Countries fishing in and outside EU waters - "fin marketable" shark species (2008–2017) (tons)

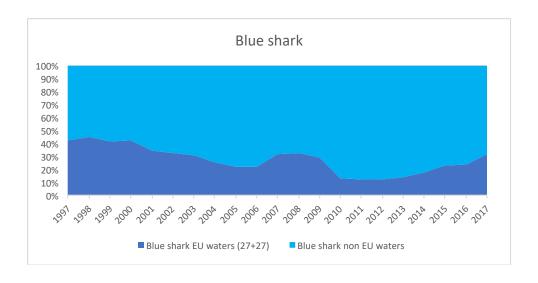
	FAO Major Fishing Areas	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Average	Rank
EU	Atlantic, Northeast	6 624	7 898	13 188	12 779	13 573	13367,1	15 707	18 150	18 870	16 268	13 642	1
LU	Mediterranean and Black Sea	182	239	232	361	163	186,8124	351	154	261	387	2 973	2
	Atlantic, Eastern Central	9 904	10 325	30 617	23 465	19 239	16 087	13 615	15 930	17 244	17 172	17 360	1
	Atlantic, Southeast	4 782	4 886	16 528	10 528	8 670	6 530	6 263	7 475	6 379	6 122	7 816	2
	Atlantic, Southwest	5 054	4 170	10 409	10 339	8 375	5 696	6 811	5 783	6 688	10 179	7 350	3
	Atlantic, Northwest	3 158	3 194	8 208	6 043	9 906	9 177	8 715	8 192	5 773	6 460	6 883	4
	Pacific, Southeast	1 105	1 694	12 413	9 882	4 852	6 666	3 668	4 668	6 967	6 996	5 891	5
OFR	Indian Ocean, Western	2 650	2 540	4 033	11 787	4 734	5 244	4 800	4 247	4 365	4 476	4 888	6
OFK	Atlantic, Western Central	1 374	1 883	5 608	8 876	3 748	2 984	1 329	1 658	1 432	842	2 973	7
	Pacific, Southwest	1 362	1 246	1 836	1 816	1 485	2 333	2 189	1 656	1 228	1 512	1 666	8
	Indian Ocean, Eastern	670	70	428	379	75	68	1 115	1 375	575	317	507	9
	Pacific, Eastern Central	60	22	7	1	64	92	30	9	18	7	252	10
	Pacific, Western Central	0	0	0	0	0	0	0	0	0	0	31	11
	Pacific, Northwest	0	0	0	0	0	0	4	0	25	1	10	12
	Total	36925	38166	103506	96256	74884	68430	64597	69299	69825	70739		

*FAO: data; **: DCF data

4.4.3 Supra-regional analysis

In order to give a first overview on the 'fin marketable' shark landing activity outside EU water, and regarding the time and human resources available, the EWG 1917 agreed to focus this first analysis only on two fishing areas: Atlantic Eastern Central and Ocean Indian (East and West combined) Supra Regions. These two supra regions compiled respectively 24%** and 7%** of the total landings in 2017.

Regardless the sub-region, Spanish and Portuguese fleet are the main sharks' fishers in the European fleet. Their targeted shark fisheries or by-catches landings may have an impact on the sharks' stocks and possible fins' markets. However, this may need further study as the surface longline fleets mainly catch sharks that are valuable for their meat such as blue shark. In this case finning might be less likely, while in others that target other fish species, just keeping the fins can provided an added value.



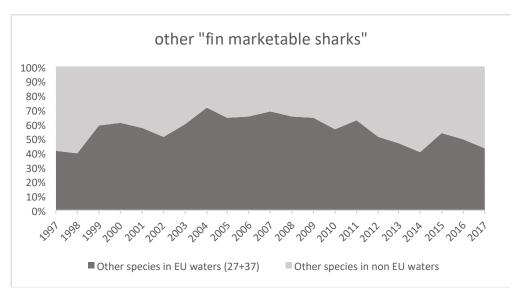


Figure 4.12. Evolution of the proportion of blue shark and Other Fin marketable shark species in and out EU waters for all EU countries, 1997-2017 (FAO data)

Table 4.11 List of member States landing marketable shark fins with information in their Supra Region of fishing activity, Outermost Region and Other Fishing Area.

(*) Countries in Italic have activities in OFR but no landing data from these fishing areas were reported in the DCF data base. MBS= Mediterranean & Black Sea (area 37) NOA = North Atlantic Ocean (area 27)

Country Code	Member state	Supra Region	Outermost Regions	Other Fishing Region
BEL	Belgium	NAO	No	No
CYP	Cyprus	MBS	No	No
DEU	Germany	NAO	No	Atlantic Eastern Central
		OFR		Pacific Southeast
DNK	Danemark	NAO	No	No
ESP	Spain	NAO	Canary Islands	Atlantic Northwest
		MBS		Atlantic Eastern Central
		OFR		Atlantic Southest
				Atlantic Southwest
				Indian Ocean Western
				Indian Ocean Eastern
				Indian Ocean Antartic and Southern
				Pacific Western Central
				Pacific Eastern Central
				Pacific Southwest
				Pacific Southeast
				Pacific Antartic
ED A	F	1110	La Barratara	Atlantic Eastern Central
FRA	France	NAO	La Reunion	Atlantic Southest
		MBS	Mayotte	Atlantic Southwest
		OFR	St Martin	Indian Ocean Western
			Martinique	Indian Ocean Antartic and Southern
			Guadeloupe	Pacific Southeast
			French Guiana	Atlantic Southwest
GBR	UK	NAO	No	Atlantic Southeast
				Atlantic, Eastern Central
				Atlantic, Southwest
				Indian Ocean Eastern
000		****	••	Indian Ocean Western
GRC	Greece Crotia	MBS	No No	No No
IRL	Ireland	MBS NAO	No	Atlantic Eastern Central
ITA	Italy	MBS	No	Atlantic Eastern Central
	italy	OFR	110	Additio, Editori General
LTU	Lituania	NAO	No	Atlantic Eastern Central
		OFR		Pacific Southeast
LVA*	Latvia	NAO	No	Atlantic Eastern Central
		OFR		
MLT	Malta	MBS	No	No
NDL *	Netherland	NAO	No	Atlantic Eastern Central
		OFR		
POL*	Poland	NAO	No	Atlantic Eastern Central
		OFR		
PRT	Portugal	NAO	Azores	Atlantic Northwest
		MBS	Madeira	Atlantic Southeast
				Atlantic Western Central
				Atlantic, Eastern Central
				Atlantic, Southwest
				Indian Ocean Eastern
				Indian Ocean Western
				Pacific Southwest
				Pacific Eastern Central
				Pacific Southeast
				Pacific Western Central
SVN	Slovenia	No		No
SWE	Sweden	NAO		No

The supra-regional analysis is further elaborated in Annex 4.

4.4.4 Analysis by country

EWG 1917 decided to focus its analysis on three main countries, France, Portugal and Spain, which have the main sharks' landings in EU. However, EWG 1917 is aware that this analysis has to be extended to the all coastal Members States in order to implement the EU Plan of Action.

France

The total value of the 'fin marketable' sharks declared by France for 2017 represents 3,239 t for a value of 4,444 k€. The main landings species are the Smooth-hounds which represent 84% of the total landings in weight.

In 2017, the French fleet landed 2,730 tons** for an average price of $\[\in \]$ 1.3 per kilo**. These fleet lands also, Tope sharks and Blue sharks for respectively 313** tons (average price: $\[\in \]$ 1.2**) and 126** tons in 2017 (average price: $\[\in \]$ 0.8**). French fleets also landed Thresher sharks in smaller proportion; however, the higher commercial value of this species could constitute an incentive to fish these species (average price $\[\in \]$ 4.1 per kilo).

Fishing activity for 'fin marketable' sharks mainly occurs in Area 27 and is performed by demersal trawlers from 12-18, 18-24 and 24-40m, this fact is driven by the large proportion of smooth-hounds in the landing datasets. However, the EWG 1917 stressed the fact that French fleet operates in various FAO fishing areas for which few 'fin marketable' sharks data is reported, this may be due to the variability noticed in the DCF data set from one year to another and between areas. EWG expresses the need for all MS to provide comprehensive species-specific data especially for outermost regions and catches occurring outside EU waters.

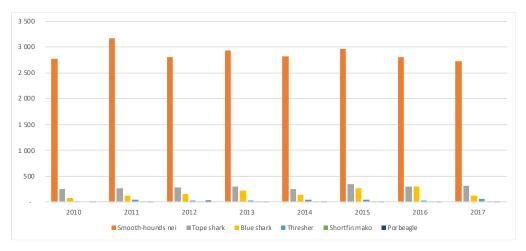


Figure 4.12 France, Landings of marketable fins sharks' species for France -2010 to 2017 in tons (source DCF)

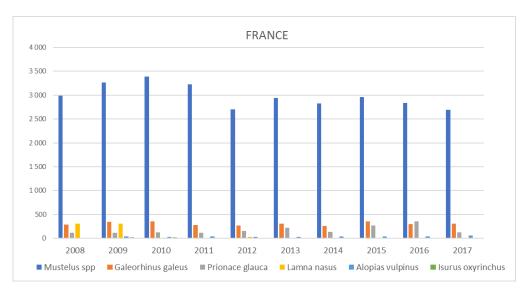


Figure 4.13 France, Landings of marketable fins sharks' species for France -2008 to 2017 in tons (source FAO)

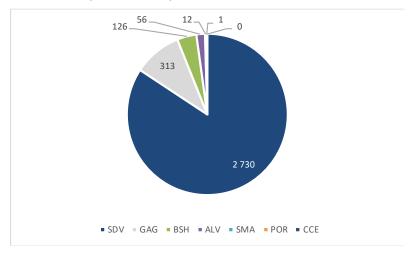


Figure 4.14 Marketable shark landing per species in weight (tons) – France, 2017 (DCF data)

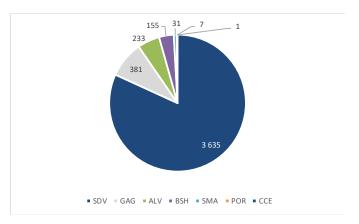


Figure 4.15 Marketable shark landing per species in value (KEur) – France, 2017 (DCF data)

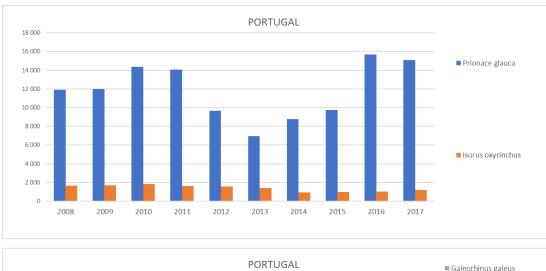
e _C	Gear	Fleet Segment	2010	2011	2012	2013	2014	2015	2016	2017
[Demersal trawlers and/or demersal seiners	FRA NAO DTS1824 NGI*		1 116	1 049	1 065	1 046	1 131	1 217	1 22
		FRA NAO DTS1824 NGI	540							
		FRA NAO DTS1218 NGI	-	-	344	412	-	483	392	43
		FRA NAO DTS2440 NGI*			133	168		251	207	20
		FRA NAO DTS2440 NGI	118	186			140			
		FRA NAO DTS1012 NGI*		48	40	58	68	165	192	5
		FRA NAO DTS1012 NGI	-							
[Dredgers	FRA NAO DRB1218 NGI*		112	33	121	18	33	23	2
		FRA NAO DRB1012 NGI	68	-	-	-	-	-	-	-
[Orift and/or fixed netters	FRA NAO DFN1012 NGI	414	433	-	-	345	-	-	-
		FRA NAO DFN0010 NGI	1 103	-	-	-	-	-	-	-
		FRA NAO DFN1218 NGI*		99	91	118	137	160	119	11
		FRA NAO DFN1218 NGI	54							
		FRA NAO DFN1824 NGI	-	81	116	71	76	60	73	4
F	Pelagic trawlers	FRA NAO TM 1824 NGI*		237	219	158	230	125	65	4
		FRA NAO TM 1824 NGI	-							
		FRA NAO TM 1218 NGI	-	41	32	28	34	45	20	3
7	Vessels using active and passive gears	FRA NAO PMP1012 NGI	26							
		FRA NAO PMP1012 NGI*		33	16	26	18	4	33	2
		FRA NAO PMP0010 NGI	52	-	-	-	-	-	-	-
7	Vessels using hooks	FRA NAO HOK1012 NGI	66	70	97	60	36	76	21	6
		FRA NAO HOK1218 NGI	-							
		FRA NAO HOK2440 NGI*	-	22	25	41	23	21	30	4
		FRA NAO HOK0010 NGI	5	20	5	21	33	7	14	1
7	Vessels using polyvalent active gears only	FRA NAO MGP1218 NGI*		33	30	12	10	8	15	1
		FRA NAO MGP1012 NGI*		37	20	3	12	3	26	3
		FRA NAO PGP1012 NGI		-	-	-	-	-	-	-
		FRA NAO PGP0010 NGI	12	16	9	11	5	7	4	
\	Vessels using pots and/or traps	FRA NAO FPO0010 NGI		-	-	-	-	-	-	-
_		FRA NAO FPO1012 NGI		_		-	-	_	_	_
7	Total		2 460	2 585	2 259	2 372	2 231	2 580	2 448	2 37

Table 4.12: France - Distribution of landings for the 30st Fleet segments in tons, 2010-2017 (DCF data) EU Countries fishing in and outside EU waters - "fin marketable" shark species $\frac{1}{2}$

Portugal

The total value of the 'fin marketable' sharks declared by Portugal for 2017 represents 10,534 t for a value of 26,235 k€. The main landings in tons and in euros for Portugal are the Blue sharks. In 2017, the Portuguese fleet landed 9,444 tons** (90% of the total landings) for an average price of €2.5 per kilo**. These fleet lands also, Shortfin make and Tope sharks for respectively 953 tons** (average price: €2.5**) and 76** tons in 2017 (average price: €4.8**).

Fishing activity for 'fin marketable' sharks mainly occurs in Area 27 and is performed by Long liners over 24 meters length.



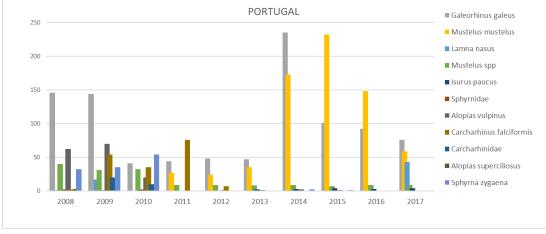


Figure 4.16 Portugal, Landings of marketable fins sharks' species for Portugal - 2008 to 2017 in tons (source FAO) (Blue shark and shortfin make plotted separately).

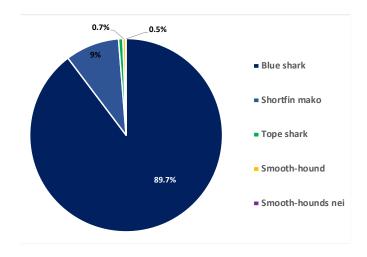


Figure 4.17: Marketable shark landing per species in weight (tons) – Portugal, 2017 (DCF data)

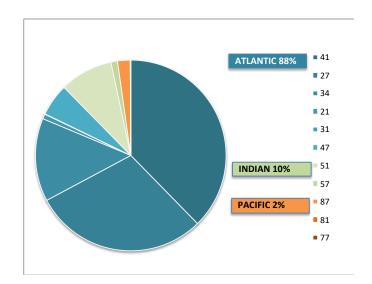


Figure 4.18: Marketable shark landing per species in value (KEur) – Portugal, 2017 (DCF data)

Table 4.13 Portugal - Distribution of landings for the 30st Fleet segments in tons, 2008-2017 (DCF data). EU Countries fishing in and outside EU waters - "fin marketable" shark species

al	Gear Definition	Fleet segment	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	Demersal trawlers and/or demersal seiners	PRT NAO DTS2440 NGI	5	4	3	4	5	4	6	5	6	6
	Drift and/or fixed netters	PRT NAO DFN1218 NGI	37	51	13	13	12	15	12	23	15	17
		PRT NAO DFN1824 NGI	6	9	9	12	11	9	12	9	14	9
		PRT NAO DFN0010 P3	4	5	5	8	5	4	4	6	10	8
		PRT NAO DFN0010 NGI	3	2	3	4	3	4	4	3	6	8
		PRT NAO DFN1012 NGI	1	1	1	1	2	2	3	2	2	2
	Purse seiners	PRT NAO PS 1824 NGI	2	4	6	2	1	2	2	2	3	2
	Vessels using hooks	PRT OFR HOK40XX IWE*	-	-	-	-	-	-	-	-	-	3 413
		PRT OFR HOK2440 IWE*	-	-	-	-	-	-	-	-	2 729	3 612
		PRT OFR HOK2440 IWE	3 197	3 054	3 571	3 392	3 066	1 798	2 610	2 172	-	-
		PRT NAO HOK2440 NGI	1 840	2 128	1 874	1 946	1 802	1 907	1 452	1 493	2 048	1 832
		PRT OFR HOK40XX IWE	1 132	669	1 408	2 201	2 312	1 194	1 318	899	1 471	-
		PRT NAO HOK1824 NGI	1 391	1 732	1 675	1 587	1 444	1 116	1 044	959	907	685
		PRT OFR HOK2440 NGI	333	528	1 058	501	561	321	-	-	-	-
		PRT NAO HOK2440 P2	482	452	595	506	482	326	214	372	372	160
		PRT NAO HOK1218 NGI	134	157	161	157	141	184	234	203	438	478
		PRT NAO HOK2440 P3 *	0	2	2	1	0	46	417	93	262	181
		PRT NAO HOK1012 P3	14	14	20	69	195	53	20	34	48	31
		PRT NAO HOK1824 P2	88	57	109	32	3	0	-	-	-	0
		PRT NAO HOK0010 P3	21	21	20	43	71	36	55	49	43	36
		PRT NAO HOK1218 P3	13	16	19	63	86	20	20	10	15	13
		PRT NAO HOK1012 NGI	2	6	7	5	9	10	15	4	1	2
		PRT NAO HOK0010 NGI	2	3	3	2	2	3	3	4	3	2
	Vessels using polyvalent passive gears only	PRT NAO PGP0010 NGI	16	12	23	16	13	19	23	30	19	20
		PRT NAO PGP1218 NGI	5	18	4	4	49	14	17	10	14	6
		PRT NAO PGP0010 P3 *	1	1	0	1	0	4	3	2	2	1
		PRT NAO PGP1824 NGI	-	-	-	-	-	-	-	-	2	1
	Vessels using pots and/or traps	PRT NAO FPO1218 NGI	3	3	4	2	2	4	4	1	7	-
		PRT NAO FPO1218 NGI*	-	-	-	-	-	-	-	-	-	3
		PRT NAO FPO1824 NGI	1	1	1	1	2	1	6	1	1	-

Spain

The total value of the 'fin marketable' sharks declared by Spain for 2017 represents 55,937 t for a value of 99,939 k€. The main landing species in tons and in euros for Spain are the Blue sharks. In 2017, the Spanish fleet landed 50,389 tons** (90% of the total landings) for a price of €1;7 per kilo**. In 2017, These fleet landed also, shortfin make and tope sharks and Longfin make for respectively $5,270^{**}$ tons (price: €2.5**) and 95^{**} tons (price: €2.6**) and 87 tons** (price: €2;8**).

Spanish fleets landed 'fin marketable' sharks from all fishing regions: Atlantic Ocean is dominant and represents 79% of the total weight, followed by Pacific Ocean (15%) and Indian Ocean (6%), the catches are mainly performed by longliners over 24 meters.

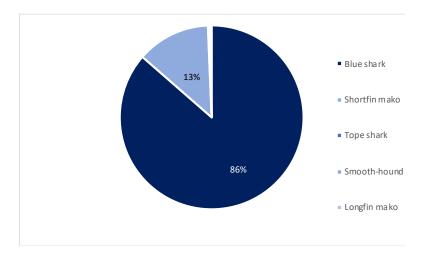


Figure 4.19 Marketable shark landing per species in weight (tons) – Spain, 2017 (DCF data)

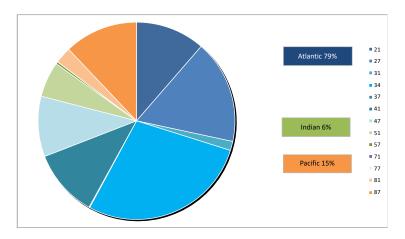


Figure 4.20 Marketable shark landing per area in value (KEur) – Spain, 2017 (DCF data)

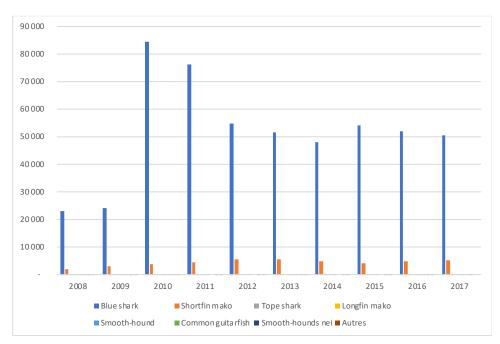


Figure 4.21: Spain, data Landings of marketable fins sharks' species for Spain 2010 to 2017 (source DCF)

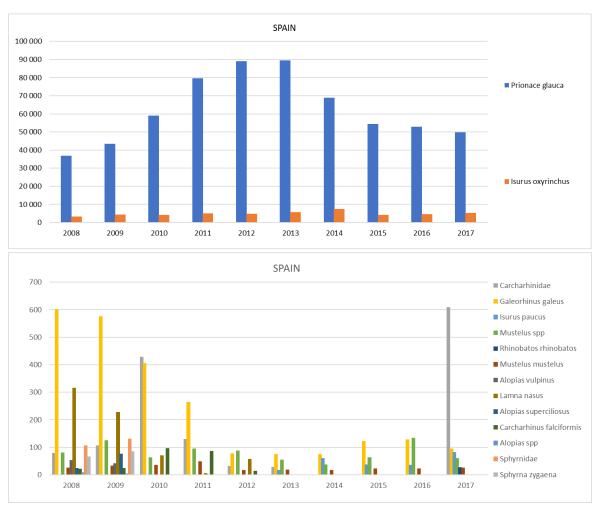


Figure 4.22 Spain, Landings of marketable fins sharks' species for Spain -2008 to 2017 in tons (source FAO) (Blue shark and shortfin make plotted separately).

Table 4.14 Spain - Distribution of landings for the 30st Fleet segments in tons, 2008-2017 (DCF data). EU Countries fishing in and outside EU waters - "fin marketable" shark species

Spain	Gear Definition	Étiquettes de lignes	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	Demersal trawlers and/or demersal seiners	ESP NAO DTS2440 NGI	271	232	109	50	16	7	4	11	5	6
		ESP OFR DTS2440 NGI	37	22	27	1	1	9	11	53	98	75
		ESP OFR DTS40XX NGI	128	2	2	-	-	-	-	1	51	9
		ESP NAO DTS1824 NGI	21	37	16	10	4	5	8	11	11	8
		ESP MBS DTS1824 NGI	10	11	15	19	18	17	9	17	8	5
		ESP MBS DTS2440 NGI	10	3	8	7	8	5	6	18	18	8
	Drift and/or fixed netters	ESP NAO DFN2440 NGI	65	1	-	-	-	-	-	-	-	-
	Purse seiners	ESP NAO PS 1824 NGI	8	-	97	1	0	-	-	-	0	0
	Vessels using active and passive gears	ESP NAO PMP0010 NGI	47	37	39	-	-	-	46	47	41	37
	Vessels using hooks	ESP OFR HOK2440 NGI	13 259	16 312	63 648	54 058	39 175	-	-	-	-	-
		ESP OFR HOK2440 LLD*	-	-	-	-	-	-	25 619	27 390	29 607	29 104
		ESP NAO HOK2440 LLD*	-	-	-	-	-	-	17 475	21 755	16 758	16 292
		ESP OFR HOK40XX NGI	3 506	3 806	18 054	14 741	7 845	8 183	-	-	-	-
		ESP NAO HOK2440 NGI	5 177	4 218	2 235	7 691	10 131	13 071	-	-	-	0
		ESP OFR HOK2440 NGI*	-	-	-	-	-	33 612	-	-	-	-
		ESP OFR HOK40XX LLD*	-	-	-	-	-	-	6 953	7 020	8 427	8 523
		ESP NAO HOK1824 LLD*	-	-	-	-	-	-	2 086	2 224	1 826	1 727
		ESP OFR HOK1824 NGI	-	1 038	2 176	2 563	1 737	-	-	-	-	-
		ESP NAO HOK1824 NGI	346	79	568	1 137	1 231	1 840	-	-	-	-
		ESP MBS HOK2440 NGI	-	1 571	1 521	-	-	-	-	-	-	-
		ESP MBS HOK1824 NGI*	2 789	-	-	13	58	42	-	-	-	-
		ESP OFR HOK1824 NGI*	955	-	-	-	-	-	-	-	-	-
		ESP MBS HOK1824 NGI	-	529	103	-	-	-	-	-	-	-
		ESP NAO HOK1218 NGI	5	7	1	124	90	122	1	0	0	-
		ESP OFR HOK1218 NGI	-	116	71	1	0	68	0	0	0	-
		ESP MBS HOK1824 LLD*	-	-	-	-	-	-	68	-	110	77
		ESP MBS HOK1218 LLD*	-	-	-	-	-	-	23	-	31	22
	Vessels using polyvalent passive gears only	ESP NAO PGP2440 NGI*	-	-	29	-	-	-	518	-	-	-
		ESP NAO PGP2440 NGI	-	-	-	429	-	-	-	-	-	-
		ESP NAO PGP0010 NGI	-	-	-	43	51	48	-	-	-	

4.5 Conclusions

4.5.1 Analysis of finning reports

The EWG analysed the national reports by the different Member States for the reporting period 2015 to 2019 and found several issues that hampered the analysis carried out. These issues were related in some instances to the lack of specificity in the Regulation leading to different interpretation by MS. In others, some additional information, currently non mandatory according to the Regulation, but considered by the EWG as being of utmost importance for the assessment of the implementation was identified such as information on fleet segment catching sharks both within and outside EU waters.

The analyses of the information provided a good overview of the responses but were confounded by the lack of consistency in reporting per MS per year. The EWG considers that indicators could be developed which would take these discrepancies into account, but did not have time to do this.

In it's response to the Commission EWG 19-17 suggests that STECF takes the following proposals into account:

- Revise the current template (Annex 2) for the provision of information taking the following into consideration:
 - Provide a list of the species that must be mandatorily reported, according to the list of species that are susceptible of finning identified in section 4.3.1.
 - o Require the reporting of coverage by gear, area, fleet segment.
 - Use of unique identifiers for landings that allow for the crosschecking of inspections and landing data.
- Explore the possibility of carrying out a risk-assessment to identify high risk fleets
- For quality control it is suggested to develop a way to carry out validation checks to make sure that data reported are consistent with what national authorities are reporting to the EU.

The EWG further suggests that nations carry out a fleet segment analysis of the data on EU waters and 'outside EU' waters (including EU-flagged vessels in RFMO and RFB waters) and include this in the report

4.5.2 Analysis of fisheries data

The preliminary complementary analysis conducted on two landings statistics datasets (DCF and FAO) for a selection of 'marketable fins' sharks' species, declared by EU Members fishing in EU and non-EU waters, was intended for exploring the differences in the variables available and the different potentialities of the datasets. In addition, the EWG 1917 evaluated the figures resulting from the two datasets, when the same selection of species, countries and areas were conducted.

The EWG 1917 noted an overall similarity of the relative trends in abundance, priority countries and species declared. When further details were analyzed in two regions outside EU waters where the EU fleets operate most, South East Atlantic (FAO area 34) and Indian Ocean (FAO areas 51 and 57), the two datasets were in line, highlighting both the Spain and Portugal as the main producers, with slight divergences in the quantities.

Observing the species-specific information available in 2008 from Spain, Portugal and UK, EWG 1917 observed in improvement in the quality of the information

provided at species-specific level in respect to the following years. The low values of porbeagle, hammerheads and silky sharks observed in the two data sets from 2008-2013, will be due to the EU zero quota and NEAFC live release measure for porbeagle introduced in 2010, the ICCAT prohibitions on the retention of hammerhead sharks in 2010 (BYC 10-08 on hammerhead sharks) and silky sharks in 2011 (BYC 11-08 on silky sharks).

The DCF dataset allowed for a more detailed description of the landing data, including the fleet segmentation and the value at species level. However EWG 1917 expresses concern about the variability of the data made available by member states from year to year and within the different fishing areas. EWG1917, in accordance with the EWG1906 and EWG1807 recommendations to stress the urgent need of provision for comprehensive species-specific data in non-EU waters and in Outermost regions by all the member states harvesting sea products in these areas.

For a more reliable description of the landing data it would be necessary to comprehend the discrepancies of the two datasets, thus to know more deeply the data reporting, the sources, the variable estimation with regard for example to eventual conversion factors to live weight and/or other data transformations. Moreover, it is advisable that the other datasets available (e.g. ACDR Aggregated Catch Data Report system) be added in a future comparison exercise. The EWG suggests that this work is carried out prior to any future evaluation of the implementation of regulations regarding shark fisheries and their management.

5 IMPLEMENTATION OF THE FINS NATURALLY ATTACHED (FNA) POLICY BOTH WITHIN AND OUTSIDE THE EU

5.1 Within the EU

In the REGULATION (EU) No 605/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 June 2013 amending Council Regulation (EC) No 1185/2003 on the removal of fins of sharks on board vessels, article (8) it stated that:

The Scientific, Technical, and Economic Committee for Fisheries (STECF) acknowledges the problem of shark finning, calls for its eradication, without derogations, and advises that all elasmobranch species should be landed with their fins/wings naturally attached to their bodies.

This fins naturally attached (FNA) policy has been implemented by the EU since, without exception. In the past 5 years there have been 14 cases of non-compliance of a total of 24591 inspections. In all cases the nature of the non-compliance was clear (fins not attached) and the vessel was identified in many of the cases. The penalty was not always clear as it might have been pending at the time of reporting. The EWG can therefore conclude that there is no evidence that the FNA has not been complied with.

The EWG noted that quantification of relevant inspection/compliance in relation to those fleet segment that will likely have greater interactions with sharks with marketable fins cannot be quantified from the data provided in the current country reports. Furthermore, it is unclear if there has been double counting of inspections as it is known that inspections are being carried out on national and other EU country fleets, but this level of information is not always provided in the reporting.

In addition to country reports the EWG considers that the EU could usefully prepare an annual report of data of non-compliance of Non-EU vessels in EU waters. To add to the completeness of review of national reports as the current format of the national reports do not necessarily hold this information

5.2 Outside the EU

The Fins Naturally Attached policy applies to EU vessels regardless of where they fish, see also Regulation 605/2013³³ on "the removal of shark fins, retention on board, transhipment and landing of sharks or shark fins which covers:

- 1. vessels in maritime waters under the sovereignty or the jurisdiction of Member States;
- 2. vessels flying the flag or registered in Member States **in other maritime waters**."

In this context it is important to note that many RFMOs have adopted CMMs that prohibit shark finning, although only a few (including NAFO and NEAFC) mandate FNA. Most of these CMMs specify a fin:carcass weight ratio (but without

³³ REGULATION (EU) No 605/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL - of 12 June 2013 - **amends** Council Regulation (EC) No 1185/2003 on the removal of fins of sharks on board vessels

specifying whether the latter is whole or dressed weight) and suggest measures to assist with monitoring, control and surveillance (MCS) e.g. 'fins and carcasses to be offloaded together' (see following sections and Annex 1 for a full overview). However, all EU vessels must comply with the EU FNA policy, reqardless of which RFMO CMMs apply where they are fishing, although objective, quantitative information on this was not available for the EWG to assess.

5.2.1 Western and Central Pacific Fisheries Commission (WCPFC)

In the case of the WCPFC, the Technical and Compliance Committee (TCC) is one of the four subsidiary bodies that supports the work of the Commission. It is the "enforcement" committee of the Commission. The TCC reviews members' adherence to Commission decisions and monitors individual countries' implementation of those measures. The TCC also makes recommendations to the Commission with respect to encouraging, improving and enforcing compliance by members with the decisions of the Commission (Murua *et al.*, 2013).

Every year, the TCC produces a compliance monitoring report, which is reviewed and eventually adopted by the Commission, reviewing the compliance by Member State against the different measures (e.g., see WCPFC, 2018).

According to this report, the EU is compliant, and EU vessels have been subject to port and at sea inspections regularly in some main areas like New Zealand. However, the coverage level is unknown. The WCPFC has a specific requirement for the prohibition of finning (CMM 2010/07): "CCMs shall require their vessels to have on board fins that total no more than 5% of the weight of sharks on board up to the first point of landing. CCMs that currently do not require fins and carcasses to be offloaded together at the point of first landing shall take the necessary measures to ensure compliance with the 5% ratio through certification, monitoring by an observer, or other appropriate measures. CCMs may alternatively require that their vessels land sharks with **fins attached to the carcass** or that fins not be landed without the corresponding carcass."

5.2.2 Inter-American Tropical Tuna Commission (IATTC)

IATTC Resolution C-11-07 establishes the Meetings of the Committee for the Review of Implementation of Measures adopted by the Commission (the Committee), and the procedure for the monitoring of compliance by each Members and co-operating non-Members of the Commission (CPCs).

The main findings of the Committee are published in the IATTC site (available at https://www.iattc.org/IATTC-CORENG.htm). However, the individual CPC's reports are not in the public domain, and the methodology for the enforcement could not be evaluated by the EWG.

As far as the IATTC finning prohibition is concerned CMM 2005-03 states that "CPCs shall require their vessels to have onboard fins that total no more than 5% of the weight of sharks onboard, up to the first point of landing. CPCs that currently do not require fins and carcasses to be offloaded together at the point of first landing shall take the necessary measures to ensure compliance with the 5% ratio through certification, monitoring by an observer, or other appropriate measures." Moreover, the CMM states "fishing vessels are prohibited from retaining on board, trans-shipping, landing or trading in any fins harvested in contravention of this Resolution."

5.2.3 Indian Ocean Tuna Commission (IOTC)

The Compliance Committee was formally created in 2002. This Compliance Committee is responsible for reviewing all aspects of CPCs individual compliance with IOTC conservation and management measures in the IOTC Area and report directly to the Commission on its deliberations and recommendations. The primary responsibility of the Compliance Committee is to monitor compliance with respect to implementation of IOTC Conservation and Management Measures by CPCs. The monitoring is conducted through the assessment of reports provided by CPCs. Under the IOTC Agreement, Article X, and through Appendix V of the IOTC Rules of Procedure, CPCs are required to report on their progress of implementation (Report of Implementation) and on compliance issues (Compliance Questionnaire). Monitoring of compliance is as well conducted through the assessment of data reporting and information reported as per requirements reporting set in the various resolutions https://www.iotc.org/compliance).

The latest report of the Compliance Committee (accessible on line at https://www.iotc.org/sites/default/files/documents/2019/06/IOTC-2019-CoC16-RE.pdf) reviews the overall implementation of the measures. The implementation reports by each member are also accessible in the public domain (https://www.iotc.org/IOTC-2019-CoC16-IR06).

In the template for the implementation report, Members of the Commission must report in the Compliance Questionnaire whether their national legislation to prohibit finning specifies fins naturally attached or the 5% weight ratio mandated by IOTC Res 2005/05 (now superceded), but there is no information on MCS for this measure. However, in 2017 the Indian Ocean Tuna Commission (IOTC) adopted a fins naturally attached policy (FNAP) for fresh landings³⁴. IOTC is encouraging its CPCs to move away from the 5% weight ratio still applicable for frozen landings and progressively implement FNAP until the point of first landing for all shark catches.

5.2.4 International Commission for the Conservation of Atlantic Tunas (ICCAT)

The ICCAT Conservation and Management Measures Compliance Committee was established in order to oversee the monitoring of the implementation of the measures adopted. These concern mainly compliance with the catch quotas/limits, minimum sizes, list of fishing vessels involved in the tuna and tuna like species fisheries.

ICCAT has adopted even in recent years several recommendations (Rec. 12-05, Rec. 16-13, Rec. 18-06) requiring CPCs to report to the ICCAT Secretariat details of their implementation of and compliance with the shark conservation and management measures. This can be done by each country filling in a "Shark Implementation Check Sheet", adopted in 2018 (https://www.iccat.int/Documents/Recs/compendiopdf-e/2018-06-e.pdf), reporting all the requirements and their status of implementation, even if not directly addressed to finning practice.

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Resolution 2017/05 On the conservation of sharks caught in association with fisheries managed by IOTC. www.iotc.org/cmm/resolution-1705-%E2%80%A8on-conservation-sharks-caught-association-fisheries-managed-iotc

The report of the meetings of the Compliance Committee are available through the ICCAT web site; as for other tRFMOs the individual CPC's reports are not in the public domain.

The ICCAT Rec. BYC 04-10 states that "CPCs shall require their vessels to not have onboard fins that total more than 5% of the weight of sharks onboard, up to the first point of landing. CPCs that currently do not require fins and carcasses to be offloaded together at the point of first landing shall take the necessary measures to ensure compliance with the 5% ratio through certification, monitoring by an observer, or other appropriate measures." Moreover, "Fishing vessels are prohibited from retaining on board, trans-shipping or landing any fins harvested in contravention of this Recommendation." However, the text does not specify whether the ratio is whole or dressed weight.

In a personal communication to Sarah Fowler, April 2019, Diego Cardeñosa stated that although silky sharks are a common bycatch of south Atlantic purseseines and longlines, an ongoing genetic study of the species composition of the Hong Kong shark fin market (e.g. Cardeñosa et al. 2018) did not record any evidence of material from the genetically-distinct Atlantic stock among >400 silky shark samples analyzed and collected from 2014 to 2017. This is likely the result of ICCAT Recommendation BYC 2011-08, which prohibits the retention, transshipment or landing of silky sharks by CPC vessels (with the exception of developing coastal States), and appears to have restricted the supply of Atlantic silky shark fins into international trade. The CITES Appendix II listing of silky shark only came into effect in 2017 and should not have had an effect on trade before this date. Furthermore, an Appendix II listing requires that products entering trade are accompanied by permits certifying that they were legally obtained and sustainably fished; it is not a trade prohibition.

5.2.5 General Fisheries Commission of the Mediterranean (GFCM)

GFCM has established a Compliance Committee (CoC) in 2006 for reviewing the implementation of measures for surveillance and enforcement, including implementation of the GFCM Control and Inspection Scheme and compliance with measures. The Meeting of the CoC are held at least once a year, producing a final Table of Compliance referred to all the issues related to the implementation of GFCM recommendations. These include the following recommendations regarding sharks and rays: Rec. GFCM/36/2012/3, on fisheries management measures for the conservation of sharks and rays in the GFCM area of application, amended by Rec. GFCM/42/2018/2 which requires fins to remain attached until sharks have been landed; and Rec. GFCM/39/2015, Management measures for piked dogfish in the Black Sea. Reports of the CoC meetings are available on the GFCM website: the last meeting was held on 17–18 July 2019 in Tirana, Albania and the report is available here:

http://www.fao.org/gfcm/reports/technical-meetings/detail/en/c/1235200/.

There are no cases of non-compliance recorded over the past three years with regards to the above recommendations on sharks and rays, implying that they were fully implemented by most of the countries of GFCM area including all EU countries. However, the EU Regulation No 2015/2102 on certain provisions for fishing in the GFCM Agreement area, which provides conservation measures on sharks including a prohibition on the retention, landing, sale etc. of 24 sharks and rays listed in Annex II of the Barcelona Convention, is not being implemented through the annual EU Fishing Opportunities Regulation. The latter only implements the species that are prohibited as a result of their inclusion in CITES and CMS Appendix I, and/or in the RFMO prohibitions.

5.3 Conclusions

In conclusion, where information is available, no instances of non-compliance by the EU fleet in relation to the shark finning regulation in the Convention Areas have been reported by any of RFMOs mentioned above. Compliance is monitored against the Conservation and Management Measures of each Commission which include requirements to ensure compliance with the finning prohibition in force. Although the EU vessels should always be assessed against the 'fins naturally attached' criterion, no objective, quantitative information was available to the EWG to evaluate this. Furthermore, the mechanisms of enforcement and the level of surveillance of the shark finning related CMMs are uncertain. Therefore, the EWG could not evaluate any progress in waters beyond national jurisdiction.

In response to the request by the Commission EWG 19-17 suggests that STECF take the following proposal into account – to discuss with the EU to liaise with non-EU states for information regarding mechanisms of surveillance, enforcement and prosecutions of EU vessels while outside of EU waters, in order to fully understand compliance of MS with the EU Finning Regulation.

6 COMMUNITY PLAN OF ACTION

6.1 Introduction

The European Community Action Plan for the Conservation and Management of Sharks (CEC, 2009), henceforth referred to as the CPOA aims to improve information about shark fisheries and populations, to ensure both directed and bycatch fisheries are sustainable and strengthen the EU ban on shark finning. It is a gradual strategy to address sharks-related issues based on sound scientific evidence.

The plan has three overarching objectives:

- (1) To broaden the knowledge both on shark fisheries and on shark species and their role in the ecosystem;
- (2) To ensure that directed fisheries for shark are sustainable and that bycatches of shark resulting from other fisheries are properly regulated;
- (3) To encourage a coherent approach between the internal and external Community policy for sharks.

The EU Shark Plan includes actions at national, EU and international levels.

6.2 Relation to IPOA

In 1999 the FAO published to IPOA shark with the aim to ensure the conservation and management of sharks and their long-term sustainable use. The IPOA called on states whose vessels conduct directed fisheries for sharks or if their vessels regularly catch sharks in non-directed fisheries to adopt and implement a national plan of action for conservation and management of shark stocks (NPOA with related Shark-plan). For regions with a joint management of their fisheries the IPOA call for the development of sub-regional or regional Shark-plans (RPOA). Those plans should be regularly, at least every four years, assessed for the purpose of identifying cost-effective strategies to increase its effectiveness as part of an adaptive strategy to an ecosystem approach to fisheries management³⁵

The European Community Action Plan for the Conservation and Management of Sharks (CEC, 2009) does not contain any guidance on review dates. The EWG review is the first instance where the efficacy of the proposed actions and their uptake has been reported on.

6.3 Shark Management

In response to the EU adopting the CPOA some Member States have developed shark conservation and management policies and legislation to further develop their strategy for the conservation of sharks and for improving the sustainability of their fisheries.

Of the 28 Member States, five are landlocked (Austria, Czech Republic, Hungary, Luxembourg, Slovakia). A further five MS (Estonia, Finland, Latvia, Lithuania and Poland) border the Baltic Sea and so elasmobranchs would only be occasional

³⁵ http://www.fao.org/ipoa-sharks/en/

vagrants to their waters (although any distant waters fleets may impact on elasmobranchs).

Two MS border the Black Sea (Bulgaria and Romania), and whilst there are some commercially important elasmobranchs in that area (thornback ray and picked dogfish), most elasmobranchs in this area are typically reported as occasional vagrants.

The remaining 16 MS (Belgium, Croatia, Cyprus, Denmark, France, Germany, Greece, Ireland, Italy, Malta, Netherlands, Portugal, Slovenia, Spain, Sweden and United Kingdom) are considered to have waters of ecological relevance to a broader range of elasmobranchs.

Of those 16 member states only the UK has developed a National Plan of Action according to the IPOA guidelines (Defra (2011) Shark, Skate and Ray conservation plan) some other MS have developed national policy plans or specific conservation measures. See Table 6.1

Table 6.1 EU Member States for which management or conservation plans for elasmobranch fish have been developed and for which data were available to the EWG

М	Document		
S			
U	Defra (2011). Shark, Skate and Ray Conservation Plan		
K			
	https://webarchive.nationalarchives.gov.uk/20130505040140/http:/archive.defra.gov.uk/environment/m		
	arine/documents/interim2/shark-conservation-plan.pdf		
	Defra (2013). A Progress Review of the Defra Shark, Skate, and Ray Conservation Plan.		
	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/224		
	<u>294/pb14006-shark-plan-review-20130719.pdf</u>		
N	LNV (2010) Nederlands Haaien Actie Plan (NL-HAP)		
L	LNV (2019) Nederlandse Haaien Strategie (update)		
	https://www.rijksoverheid.nl/documenten/rapporten/2019/05/01/internationale-haaien-		
	strategie-2019-ihs-19		

Council Regulation (EC) No. 812/2004 of 26 April 2004 lays down measures concerning incidental catches of cetaceans in fisheries. Reporting of elasmobranch bycatch also occurs under this Regulation. The information submitted in the country reports are linked to at-sea observations carried out for the purposes of fisheries monitoring in accordance with the EU Data Collection Framework Regulation 2017/1004 (DCF). Some countries, such as Italy, that have not reported under the Finning Regulation, report through cetacean Regulation. See Table 6.2 for an overview of country reporting.

Table 6.2 Reporting by Member States to the cetacean bycatch Regulation (Council Regulation (EC) No. 812/2004)

Member State CODE	Section on incidental catches available? Y/partly/mostly/N	Sharks considered separately? Y/N/NA (not available)	Specific pilot study? Y/N/NA (not available)	Comment
AUT	N	NA	-	-
BEL	Y	Y	NA	They provide sampling scheme for cartilaginous and mentioned incidental catch per species and area
BGR	Mostly	N	-	sampling scheme not appropriate, to be review in 2018
СҮР	Y	N	-	No specific protocol to collected incidental by catch in 2017. One by catch of elasmobranch mentioned
DEY	Y	N	Y	Data aggregated under fish category, Elasmobranch by catch mentioned in the report (Rajidae)
DNK	Y	Y	-	Sampling scheme not appropriate (at market only), non species-specific data
ESP	Y	Y	Y	Data provided by fishing region, non species-specific data, Pilot study for some metier in Med (2018-2020) and in Atlantic targeting small scale fisheries
EST	Y	N	N	There sampling target gillnet and traps
FIN	Y	N	N	Data from EU -logbook only, data only for bird and mammals
FRA	Y	NA	NA	Pilot study for MED Med.& Black Sea 2016 requested to be conducted
GBR	Y	Y	-	Sampling scheme design for elasmobranch, species-specific data available by area in the report
HRV	Y	N	NA	In comment they specify one elasmobranch by-catch
IRL	Y	Y	Y	Pilot on Maximum Sustainable Yield (MSY) proxies for sharks and rays like

ITL	Y	N	Y	Sampling scheme aggregated under fish category, report provide species-specific data. Pilot study to follow RCM Med.& Black Sea 2016
LTU	Y	N	N	No elasmobranch mentioned, sampling scheme to be reviewed
LVA	Y	N	NA	Sampling scheme aggregated under fish and mammals. No elasmobranch mentioned in the report, no sampling for OFR fleets
MLT	Y	Y	N	Pilot study to cover RCM Med. & Black Sea 2016
NLD	Y	Y	N	Species-specific data not available in the report
PTR	Y	Y	Y	Sampling scheme design for deep sea elasmobranch, Species specific data available by area and fleet
ROU	Y	NA	NA	-
SVN	Y	N	Y	No elasmobranch data available, pilot study to be conducted to cover RCM Med.& Black Sea 2016
SWE	Y	-	Y	Sampling scheme aggregated for all species, Pilot study mentioned for mammals and birds in Baltic for 2017

Commercial fisheries and bycatch of oceanic, transboundary migratory sharks is organised through regional fisheries management bodies. Chapter 7 provides and overview of the measures taken in each since the CPOA was introduced.

6.4 Review of actions defined

6.4.1 Introduction

The CPOA lists a wide range of legal and policy measures presented in a table of actions, including the modification of a number of existing regulations. Some of these measures can be implemented at Community level, some others need action at Member States level or must be endorsed by RFMOs. To assess the effectiveness of the CPOA in reaching it's objectives the EWG related each action back to the overarching objective using available data as well as **expert judgement** and gave an overview of the progress and limitations related to these actions, including some suggestions on how the action could be further implemented. In some cases, a possible progress indicator was identified. The full results are presented in Annex 5. and a summary of the results is presented below. To ease communication about the actions and making it possible to relate action back to the overarching objective the EWG applied a logical numbering to the actions relating to the original CPOA, which can be found in Annex 5.

The EWG notes that assessing the actions was hampered by the lack of concrete (SMART) targets for most of the actions which would allow measuring progress in a consistent format. Moreover, some of the actions have text which is non-specific or open to different interpretations whereby it is unclear what exactly is being asked for. There was also repetition of actions in different categories. See Annex 5 for the full analysis.

Similar consideration were already flagged in the Impact Assessment on the CPOA proposal conducted by DG Mare in 2009 (COM(2009) 40 final) where it was proposed to merge certain actions and rewrite them so they would include measurable goals.

Table 6.3 Objectives, sub-objectives and related actions from the CPOA.

Table 6.3 Objectives, sub-objectives and related actions from the CPOA.			
Objective	Sub-objective	Related actions	
(1) To broaden the knowledge both on shark fisheries and on shark species and their role in	Sub-objective 1.1: To have reliable and detailed species-specific quantitative and biological data on catches and landings as well as trade data for high and medium priority fisheries	data collection and monitoring trade observer coverage	
the ecosystem;	Subobjective 1.3: To improve and develop frameworks for establishing and coordinating effective consultation involving stakeholders in research, management and educational initiatives	stakeholder consultation	
(2) To ensure that directed fisheries for shark are sustainable and that by-catches of shark resulting from other fisheries are properly regulated;	Sub-objective 2.1 To adjust catches and fishing effort to the available resources with particular attention to high priority fisheries and vulnerable or threatened shark stocks. Sub-objective 1.2 To be able to efficiently monitor and assess shark stocks on a species-specific level and develop harvesting strategies in accordance with the principles of biological sustainability and rational long term economic use. Sub-objective 2.2 To minimize waste and discards from shark catches requiring the	fishing limits spatial measures discards and bycatch development of FNA	
	retention of sharks from which fins are removed and strengthening control measures.		
(3) To encourage a coherent approach between the internal and external Community policy for sharks.	No sub-objective defined in CPOA	Development of Regional Plans of Action and international cooperation	

In order to address these issues, the actions have been clustered in a way that the EWG considers more logical and re-assigned to each of the sub-objectives.

In this arrangement there are specific actions for all three objectives (Table 6.3) . In the CPOA no actions were assigned to the third objective (coherence in policy and actions) however we consider some of the sub-objectives and related actions would bd best placed under this object objective.

In order to address these issues, the actions have been clustered in a way that the EWG considers more logical and re-assigned to each of the sub-objectives. In this arrangement there are specific actions for all three objectives, whilst in the current POA the third objective has no specific actions and some of the sub-objectives and related actions have been moved from the original objective.

The overarching objectives and their subobjectives will be dealt with separately.

6.4.2 Overarching Objective 1: to broaden the knowledge both on shark fisheries ad on shark species and their role in the ecosystem

Sub-objective: To have reliable and detailed species-specific quantitative and biological data on catches and landings as well as trade data for high and medium priority fisheries.

ACTIONS RELATING TO DATA COLLECTION AND MONITORING			
1.2.1	Enhance Community and RFMOs research programmes to facilitate data collection, monitoring and stock assessment on a species-specific level.		
	1.1.2	Establish systems to provide verification of catch information by species and by fishery.	
	1.1.7	Promote improved species- specific catch and landings data and monitoring of shark catches by fishery.	
	1.1.8	Improve, in cooperation with FAO and relevant fisheries management bodies, the monitoring and reporting of catch, bycatch, discards, market and international trade data, at the species level where possible.	
	1.1.13	Monitor recreational catches and distinguish between the fishing mortality exerted by recreational and commercial fishing.	

Developments since the CPOA

ICES has made progress in providing advice for a range of stocks, using the approaches developed for data-limited species, and there are now several Category 3 stocks which use data from fishery-independent trawl surveys to provide a stock size indicator. There are also TACs in place for skates and rays over EU Atlantic waters (see STECF 2017) for further details on the management of skates.

There are a number of working groups in RFBs and RFMOs that have a special focus on sharks [see Chapter 2]. As part of the data collection obligation the EU has funds for MS for mandatory data collection of sharks (DCR, DCF and future DCMAP)

In the past 10 years there has been an increase in the training schemes for inspectors and an increase in the number of inspections.

The cooperation with FAO in collaborative programmes has increased such as the training (taxonomic and stock assessment) carried out in Italy on behalf of CNR and University of Padova.

The ICES Working Group on Recreational Fisheries Surveys (WGRFS) and GFCM WGSSF collate relevant information on recreational fisheries, and there are estimates available for harvest and release for some MS but this needs more investigation. In the national reports a section on recreational fisheries has been added and monitoring of recreational fisheries is covered by Multi Annual Plans for the North Sea and Western Waters. There is an increased awareness of the need to release elasmobranchs alive and some MS have prohibited landings of certain sharks by anglers. In Italy there are licensing systems in place and catch and release of elasmobranchs is mandatory.

Limitations

There is a lack of information on landings from coastal fleets and landings under 50 kg are not classified. There is no clear or accessible EU/MS mechanism in place for the verification of landings outside EU waters. Observer coverage is too limited to quantify the amount discarded and identify the species discarded. Moreover, discard survival is not quantified for most fisheries species.

Whilst some data are available for skates and triakids in the recreational fisheries, data for large sharks are generally not available. Data are not available for all MS and catches often not reported on making current estimates uncertain. There is very little information on survival of discards making it difficult to distinguish between commercial and recreational fishing mortality.

Future Considerations

In order to verify if progress is being made, it is suggested to create a data exchange system accessible for both the EU and RFMOs to exchange information from the current data management frameworks used by the MS. Within this system, MS should improve data collection and transfer of data, also to RFMOS. This is especially the case for Outermost regions, Long distance fleet and the Mediterranean.

The relevant bodies to make the reporting of all landings by species mandatory, also those below 50 kg.

Relevant expert groups from RFBs and RFMOs should continue to develop data collection programmes. For the recreational fisheries it is advised to collate the work done by MS and make it specific for sharks.

The EWG notes that there are multiple trials with video recognition/digital learning in the EU that have the potential to improve species specific monitoring of skate and ray catches.

Possible Progress Indicators

Review if there is increased data collection and monitoring in 4 years' time

Progress can be measured against the increase in exchange of information between RFMOs and EU/MS.

ACTIONS RELATING TO TRADE				
1.1.1	Increase investment in shark data collection at landing sites and by processing and marketing industries.			

1.1.6	Ensure that all landings and trading of shark fins, meat and oil are recorded separately by commodity and where possible at species level, in the main fisheries and for the main species.
1.1.10	Promote the identification and reporting of species- specific biological and trade data, at least for the main species.

Developments since the CPOA

There has been an improvement in species specific landings data and there is an increased use of e-log books since the EU made species specific recording of elasmobranchs mandatory. There has been increased biological sampling under DCR and training of experts in the supply chain has improved. ID-guides have been created and distributed in a number of MS. There are also buyers and sellers log books links making it easier to trace the product.

There has been an increase in the number of species listed in CITES Appendix II, and international trade in their products can therefore be monitored through the CITES trade database. The great majority of shark and ray species listed in CITES (e.g. porbeagle, big-eye thresher) were, however, already prohibited under RFMO conservation and management measures, and some species listed in Appendix I of the Convention for the Conservation of Migratory Species (CMS), which requires them to be protected. The EU implements these measures through the annual Fishing Opportunities Regulation. EU CITES Authorities cannot issue CITES legal acquisition findings or export permits for prohibited species.

FAO has created specific codes for shark fins for use by customs officials. There is information available by country in a FAO publication by Dent & Clarke (2015) and in a global summary of major shark catchers, traders and species by Oke and Sant (2019). The traceability and transparency laws in EU for fish and aquaculture products have been made more stringent through the Resolution (2016/2532(RSP))³⁶.

World Customs Organization Harmonised System (WCO HS) shark product codes used in trade, 2008–2017. (Okes and Sant 2019)

HS Code	Meat	HS Code	Fins*
30265	Dogfish & other sharks, fresh/chilled (excluding fillets, other fish meat of 03.04, livers & roes)	30292	Fish; fresh or chilled, shark fins
30281	Fish; fresh or chilled, dogfish & other sharks, (excl. fillets, livers, roes, & other fish meat of 0304)	30392	Fish; frozen, shark fins
30375	Dogfish & other sharks, frozen (excl. fillets, other fish meat of 03.04, livers & roes)	30571	Fish; edible offal, shark fins
30381	Fish; frozen, dogfish & other sharks (excl. fillets, livers, roes, and other fish meat of 0304)	160418	Fish preparations; shark fins, prepared or preserved, whole or in pieces (but not minced)

³⁶ Traceability of fishery and aquaculture products in restaurants and retail European Parliament resolution of 12 May 2016 on traceability of fishery and aquaculture products in restaurants and retail (2016/2532(RSP))

30447	Fish fillets; fresh or chilled, dogfish and other sharks	
30456	Fish meat; excluding fillets, whether or not minced; fresh or chilled, dogfish & other sharks	
30488	Fish fillets; frozen, dogfish, other sharks, rays and skates (Rajidae)	
30496	Fish meat, excluding fillets, whether or not minced; frozen, dogfish and other sharks	(*WCO HS Fin specific codes available only from 2012)

Limitations

Elasmobranchs are often shipped in mixed commodities that are not separated or identified to species level and in most cases this is either not possible or not done afterwards. However, China, for example, regularly inspects bulk imports of shark fins and customs officers are trained to identify the fins of CITES species and generic tools for species identification have been developed by Cardenosa *et al.* (2019). There is a lack of interaction between fisheries and trade disciplines leading to differences species names or codes between the two. This lack of harmonisation of registration codes combined with diverse colloquial names and limited verification possibilities leads to unintentional misreporting. Factors such as RFMO prohibitions on the retention of several oceanic shark species, as well (subsequent) listing in treaties and legislation such as CMS and CITES have potentially created an incentive to misreport which would lead to increased illegal landings and trade, although subsequent listings in CITES have improved the capacity for illegal trade in these species to be identified.

Future Considerations

In order to increase investment in shark data collection at landing sites and by processing and marketing industries (1.1.1 above) it is suggested to improve / increase data quality checks and to invest in training for landing site staff (those recording data and customs staff). A better understanding of the value chain of shark commodities and improvement in species ID from imagery through IA-algorithms and DNA would also help to implement this action.

Take note of ongoing development of FAO guidance re the collection of information across value chains and shark and ray commodities, and related case study assessments in other regions. The common name list should be updated regularly and checked for verification consistency. Improvements in achieving consistency in the use of and harmonization of HS custom codes³⁷ is needed. This includes attempts to encourage the adoption of new commodity specific custom codes (World Customs Organisation codes) and harmonisation of use of local and regional codes that are added to the end of the X digit HS codes, across regions to allow for consistency in reporting. These additional codes adopted by countries—allow a finer level of detail of commodity trade to be

³⁷ HS codes are six digits that can be broken down into three parts: the first two digits identify the chapter in the <u>HS</u> <u>Nomenclature</u> the goods are classified in, the next two digits identify the heading within that chapter, and the last two digits identify the subheading within that chapter. Countries classify products by using these standard codes but also adopt their own tariff extensions that extend the HS code – with product/commodity classifications (adding between 2-4 digits — the first six digits are an HS code, and countries assign the subsequent digits to provide additional classification. For example the U.S.A codes are 10 digits and are administered by the U.S. International Trade Commission.

tracked, although they are not officially recognised by the World Customs Organisation.

With the reduction in cost of DNA sampling, this can be added as a verification mechanism to validate reporting (Cardenosa *et al.* 2019).

Possible progress indicators

Proportion of landings reported to species level as compared to generic code (for easily identifiable species), as well as ratio identified at species level vs generic level in trade

ACTIONS RELATING TO OBSERVERS ON BOARD		
1.1.3	Mandate representative coverage on EC fishing vessels by onboard observers for vessels over 24 m and with recent bycatches figures of more than 10% to 15% (depending on the particular fishery) of sharks in the total catch.	
1.1.4	For all distant-water fleets not covered by the above measure but which take sharks as a by-catch, mandate at least 10% observer coverage by 2013.	
1.1.5	For high-priority shallow- water fisheries in the NE Atlantic, mandate pilot- based observer scheme (e.g. 25 observers or so) by 2013.	
1.1.11	Encourage representative coverage on fishing vessels by onboard observers for vessels over 24 m fishing in the high seas and with recent by-catches figures of more than 10% to 15% (depending on the particular fishery) of sharks of the total catch.	
1.1.12	For other fleets not covered by the above measure and taking sharks as a by-catch, encourage at least 10% observer coverage by 2013.	

Developments since the CPOA

There is a 5% mandatory coverage in most RFMO's, which means 5% ratio (whole or dressed weight not specified) for those CPCs that do not have a requirement to be offloaded together. The attention on board on shark bycatch is increasing, new observer programs have been developed for several EU fleets and in RFMO's. One example is the WCPFC which recently prepared guidelines for observers³⁸.

EWG was not able to assess progress to action 1.1.4, 1.1.5, 1.1.11 and 1.1.12 because the relevant information on observer coverage as worded in the CPOA was not available.

Limitations

Relevant fleets have not been identified in regards to vulnerable species interactions; this specific action has not been followed up on by any member

³⁸ https://www.wcpfc.int/regional-observer-programme

states; this specific action excludes the Med fisheries where small scale fleets are responsible for a large proportion of the catch

Future considerations

Risk based analysis of EU fleet segments to see were increased observer coverage is needed; existing observer data need to be checked to ensure they are representative; identify EU fleet segments that do catch more that 10% sharks; implement Remote Electronic Monitoring (REM) programmes including digital learning and video recognition;

Measure progress against reports coming from RFMO; make the information easily accessible

Possible progress indicators

Review if there is increased observer coverage in 4 years' time

Measure progress against reports coming from the RFMOs

Subobjective 1.3: To improve and develop frameworks for establishing and coordinating effective consultation involving stakeholders in research, management and educational initiatives

ACTIO	ACTIONS RELATING TO STAKEHOLDERS AND NATIONAL DISSEMINATION			
1.3.1	Facilitate stakeholder awareness-raising and consultation regarding shark management and best practices to reduce unwanted by-catches through Regional Advisory Council (RAC) programmes.			
1.3.2	Encourage Member States to allow public access to relevant aggregated data for fleets and information on shark fisheries, while protecting the right to confidentiality.			
1.3.3	Launch educational programmes aimed specifically at educating fishermen and the public about shark and ray conservation programmes and restrictions.			
1.2.2	Develop national expertise			

Developments since the CPOA

Advisory councils are consulted by the European Commission and regional groups and this advice feeds in to the policy development within the EU. For the implementation of the landing obligation for skates and rays the Advisory Councils worked closely with the commission and member states on developing the high survival exemption for skates and rays with associated research requirements and improvements in best practices.

The EU Data Collection Framework (Regulation (EU) 2017/1004) was reviewed in 2017 and now includes all requirements listed under action 1.3.2.

The EWG notes that at national, EU and international level there are many programs and initiatives to increase the expertise on the ground. These range from training of customs and port officials, to the dissemination of ID-guides or information posters on prohibited species. It is not possible to evaluate this action further.

Independently of the EU, there has been considerable stakeholder engagement in oceanic shark conservation and management through the efforts of industry groups such as the International Seafood Sustainability Foundation, and the Marine Stewardship Council through the certification of tuna fisheries.

Limitations

Advisory Councils are only asked to advise on new legislation by the EC and regional groups, even though the council can initiate their own unsolicited advice it is unlikely to be taken on by legislators. An example is the request to review the prohibited species list within the TAC and Quota regulation by both the North Sea and North Western Waters Advisory Councils has not led to a review of update of this policy tool.

At a national level there are large differences between member states in the amount of energy and resources that are provided for education and dissemination of information on sharks to relevant stakeholders. Furthermore, evaluating the efficacy of programs is often not possible as there is no follow up or evaluation after the introduction of an educational tool

In evaluating the finning regulation reports from member states (Chapter 4) the EWG notes that it appears from our own experience that national experts are often not consulted by the ministry officials in charge of drafting these documents.

Future considerations

If these actions are to be a continued part of the CPOA, then it should be taken into consideration how actions can be focused and measurable so that there is an improvement in stakeholder involvement.

6.4.3 Overarching objective 2: to ensure that directed fisheries for shark are sustainable and that by-catches of shark resulting from other fisheries are properly regulated.

Sub-objective 2.1 To adjust catches and fishing effort to the available resources with particular attention to high priority fisheries and vulnerable or threatened shark stocks.

Sub-objective 1.2 To be able to efficiently monitor and assess shark stocks on a species-specific level and develop harvesting strategies in accordance with the principles of biological sustainability and rational long term economic use.

ACTIONS RELATING TO FISHING LIMITS				
2.1.2	Stronger limitation of fishing effort by relevant fisheries			
	2.1.3	Establish catch limits for stocks in conformity with the advice provided by ICES and by the relevant RFMOs.		
	2.1.7	Promotion of programmes and analysis to adjust fishing effort at international level.		
	2.1.8	Establish by-catch reduction programmes for		

	sha	rk species con	sider	ed Criticall	y Endangered
	or org	Endangered anisations.	by	relevant	international

Developments since the CPOA

Since the CPOA there have been ongoing developments in both the assessments of elasmobranch stocks and in the establishment of catch limits, more so in terms of some of the demersal elasmobranchs in the ICES area.

Whilst there were no restrictions on EU vessels fishing for any shark and ray species when the CPOA came in to force (apart from the basking shark, which had been listed on Appendix 1 of the Convention on Migratory Species in 2005), fishing opportunities have been, after periods of time with zero TACs, phased out for several other endangered shark and ray species under the prohibited species list. The TAC and quota regulation setting out the annual fishing opportunities (EU Regulation 2019/124) has a list of prohibited species over broader management areas. Under article 14 of the latest regulations it is prohibited for Union fishing vessels to fish for, to retain on board, to tranship or to land these species. See Annex 6 for an overview of the elasmobranch species on the prohibited species list.

For the Mediterranean EU Regulation 2015/2102 amending Regulation (EU) No 1343/2011 (on certain provisions for fishing in the GFCM area) states that "Shark and ray species which are included in Annex II to the Protocol to the Barcelona Convention shall not be retained on board, transhipped, landed, transferred, stored, sold or displayed or offered for sale". These species (http://rac-spa.org/sites/default/files/annex/annex 2 en 2013.pdf) comprising Carcharias taurus, Carcharodon carcharias, Cetorhinus maximus, Dipturus batis, Galeorhinus galeus, Gymnura altavela, Isurus oxyrinchus, Lamna nasus, Leucoraja circularis, L. melitensis, Mobula mobular, Odontaspis ferox, Oxynotus centrina, Pristis pectinata, Pristis pristis, Glaucostegus cemiculus (as Rhinobatos cemiculus), Rhinobatos rhinobatos, Rostroraja alba, Sphyrna lewini, S. mokarran, S. zygaena, Squatina aculeata, Sq. oculata and Sq. squatina.

Demersal and deep-water elasmobranchs

The TACs for deep-water sharks that were introduced in 2005 were gradually phased out, with the most recent regulations having a nominal bycatch TAC for deep-water sharks taken as bycatch in longline fisheries targeting black scabbard fish.

Most demersal elasmobranchs are taken as bycatch in mixed fisheries, so fishing effort is often regulated by fishing opportunities for demersal species. There are a suite of catch limits for the main commercial (teleost) stocks, the fisheries for which may indirectly impact shark populations. The EU establishes the annual TACs through the relevant regulations for the Baltic Sea (e.g. EU Regulation 2018/1628), deep-sea fish stocks (e.g. EU Regulation 2018/2025), Black Sea (e.g. EU Regulation 2018/2058) and for other EU waters (including for EU fishing vessels fishing in some non-EU (e.g. EU Regulation 2019/124).

TACs can also help regulate effort, and several elasmobranch stocks are managed under the current quota system (EU Regulation 2019/124).

High seas

In tRFMOs, shark measures are typically focused on prohibitions, mitigation measures and catch limits, rather than effort limits (as there are not usually fisheries targeting sharks).

The various tRFMOs also have identified shark and ray species that cannot be retained over broader areas (i.e. Convention Areas) and these are described in Coelho *et al.* (2019), with relevant prohibitions by Convention Area also listed in EU Regulation 2019/124. See Annex 7 for a list of species covered by RFMOs.

For example, in terms of oceanic sharks in the ICCAT area, species for which ICCAT have recommended no landings are either prohibited for EU vessels to land (under Article 14 of Regulation 2019/124) or there are restrictions for EU vessels operating in the ICCAT Convention Area (under Article 20), in which the retention, transhipment and landing of bigeye thresher sharks, hammerhead sharks (Sphyrnidae, except *Sphyrna tiburo*), oceanic whitetip shark and silky shark. It is also prohibited to undertake a directed fishery for thresher sharks.

There are some effort limits set under the auspices of the tRFMOs, aimed at the reduction of fishing mortality on target tuna stocks, and these may have an impact on shark populations. Examples of these include the temporal closures for the purse seine FAD fishery in the WCPFC (CMM2018-01) and ICCAT (Rec. 10-01), or the purse seine closure in IATTC (Resolution C-17-02).

ICCAT recommendation 16/05 concerning swordfish total allowable catches and other measures (length of longline, number of hooks, size of hooks) aimed to limit the fishing effort of the swordfish longline fishery, and this fishery is responsible for the major by-catch of pelagic shark species.

Limitations

Whilst the relevant stock assessment groups working under the auspices of ICES and the tRFMOs have made progress in providing advice on the status for a range of elasmobranch stocks, some species with more limited data are yet to have an evaluation of stock status, including tope, thresher sharks and certain skate stocks in the Atlantic and Mediterranean regions.

An improved knowledge and data collection system to inform on stock identity and stock assessments are required for various stocks. There also is a lack of knowledge on the status on some elasmobranchs that may be caught as bycatch but might be vulnerable to overfishing.

Whilst quota management is (or has) been used for a range of elasmobranch stocks in the ICES area (e.g. skates and rays (Rajiformes), picked dogfish, deepwater sharks), catch limits are not in place for some elasmobranch stocks (e.g. some triakid sharks; skates and rays in the Mediterranean; some deep-water sharks which are included in the list of 'deep-water sharks' for the purposes of regulations).

Given that many elasmobranchs are taken in mixed fisheries, the impacts of longer-term reductions in fishing opportunities and fishing effort may have resulted in changes to the fishing pressure exerted on elasmobranchs, but this has not been quantified for elasmobranch species in multispecies studies.

Whilst the species and species-area prohibitions in article 14 of the TAC and quota regulation should prevent any target fisheries developing, the efficacy of such listings for species predominantly taken as bycatch also depends on a range of other factors, including (i) spatial overlap between the species in question with current fisheries, (ii) at-vessel and post-release mortality for bycatch and (iii) the appropriateness of the identified management areas. Further issues regarding the prohibited species were discussed by the ICES WGEF (ICES, 2019).

Effort limitations are better suited for target fisheries, whilst mitigation measures might balance the benefit/cost of the measure better for bycatch species (e.g. prohibition of shark lines, prompt-release unharmed policies)

Appraise the appropriateness of the current prohibited species listings and identify transparent and measurable approaches for the addition (and removal) of species to this list, including the potential to replace prohibitions with the application of Non-Detriment Findings to ensure that fisheries for CITES species are maintained at sustainable levels, as well as collate available information on current levels of bycatch and incidental mortality on prohibited species.

ICES has made progress in providing advice for a range of stocks, using the approaches developed for data-limited species, and there are now several Category 3 stocks which use data from fishery-independent trawl surveys to provide a stock size indicator. However, some of the species with more limited data are yet to have a stock size indicator, including tope and certain skate stocks.

Studies to collate relevant data and determine the most suitable approaches for gauging stock status are required for a range of data-limited stocks. Prioritisation studies (e.g. productivity-susceptibility analyses) may help identify which species could usefully be addressed in the first instance.

Potential indicators in the future

The number of high-risk fisheries with effort limits (or equivalent measure) would be a good indicator of progress in fishing limits.

ACTIONS RELATING TO SPATIAL MEASURES			
2.1.1	2.1.1 Limitation or prohibition of fishing activities in areas that are considered sensitive for endangered stocks.		
	2.1.6	Establishment of space- time boxes in areas where juveniles or spawners are abundant, especially for vulnerable or threatened species.	

Developments since the CPOA

There have been several management measures that limit or prohibit certain fishing activities in areas that may be considered sensitive to endangered stocks of elasmobranch stocks.

Demersal fisheries

Whilst there has been increased spatial management in European seas under the Habitats Directive, these sites have been designated for other species and/or habitat features.

In recent years, a designated site for flapper skate (*Dipturus intermedia*) and one for basking shark (*Cetorhinus maximus*) have been established in waters off the West coast of Scotland.

It is also possible that existing areas under broader 'marine spatial planning' (e.g. some inshore grounds where trawling is prohibited, Marine Protected Areas,

sites where other human activities are prohibited which may provide refugia from fishing) may provide some benefits to elasmobranchs.

Deep-water fisheries

Under Article 8 of EC Regulation 2016/2336 "No fishing authorisation shall be issued for the purpose of fishing with bottom trawls at a depth below 800 metres" (EC, 2016). Under Article 9 of EU Regulation 2019/1241 it is also "prohibited to deploy any bottom set gillnet, entangling net and trammel net at any position where the charted depth is greater than 200 m" (EU, 2019), although there is a derogation for fisheries in the Mediterranean Sea and derogations for those fisheries targeting hake and anglerfish in waters of 200-600 m in some Atlantic areas (see EU (2019) for exact details). These regulations limit the impacts of deep-water demersal fisheries on deep-water sharks, whilst other articles in this regulation prohibit any directed fisheries for deep-water shark in waters <600 m.

High seas

Given the highly migratory nature of many oceanic sharks, spatial management may be less effective than other management measures (e.g. prohibited species, gear restrictions such as prohibition on wire traces) unless key areas for certain life stages can be identified. For example, s recent study on the silky shark in the Atlantic Ocean found a relationship between shark abundance and upwelling (Lopez et al., 2017).

Limitations

The current regulations limiting demersal fisheries in 'deep-water' of the Atlantic (with different fisheries extending to either 200 m, 600 m or 800 m) should be effective in reducing fishing mortality on deep-water shark stocks (including chimaeroids). However, there are several depleted elasmobranch stocks that are more coastal, and such sites have not been identified across European seas.

There are limited specific examples of where fishing activities are limited or prohibited in areas that are considered 'sensitive for endangered stocks' (see below). Indeed, areas that 'are considered sensitive for endangered' elasmobranch stocks have not been fully identified and delineated.

There is no information as to what constitutes a 'vulnerable or threatened' species, and whilst it could be interpreted as related to IUCN listings, the robustness of such listings have been questioned (see Chapter 7).

Threatened species are also listed by RFMOs and RSCAPs, and identified in Ecological Risk Assessments.

Future considerations

If these actions are to be a continued part of the CPOA, then the following work should be considered:

- (1) Review and define which elasmobranchs should be considered as 'vulnerable of threatened'
- (2) Define, identify and delineate areas that are considered sensitive for elasmobranch stocks, and identify the most appropriate management measures to reduce and/or mitigate the anthropogenic impacts on the identified features of interest.
- (3) Define, identify and delineate areas that are considered important for (i) juvenile and spawning elasmobranchs and (ii) 'vulnerable or threatened' elasmobranchs;

- (4) Improve understanding of the movements of the feature(s) of interest, and identify the most appropriate management measures to reduce and/or mitigate the anthropogenic impacts on the feature(s) of interest in these areas.
- (5) For some highly migratory species, it may be that spatial management could be an effective tool if there are known areas of abundance (although this would depend on the movements and degree of site fidelity of the species in question). This could apply at the species level and not just for 'juveniles or spawners'.

ACTIONS RELATING TO DISCARDS AND BYCATCH			
2.1.4	2.1.4 Prohibit all shark discards in the medium to long term and require that all catches (including by-catches) are landed. Unwanted by- catches of sharks that have a chance to survive must be released back into the water.		
	2.1.5	Increase selectivity in order to reduce unwanted by-catch 2.1.5	

Developments since the CPOA

The 2013 review of the EU Commons Fisheries Policy contains an obligation to land all catches of species subject to catch limits. The obligation was gradually implemented and as of January 1st 2019 applies to all EU fleets (article 15 and 16 of REGULATION (EU) No 1380/2013). Elasmobranch with catch limits in the EU are: skates and rays managed under the group TAC, picked dogfish in are 7 and deep water sharks. Skates and rays received an exemption to the landing obligation (LO) on the basis of high survival under the condition that 1) member states provide data on the level of survival for all species with a priority for species deemed vulnerable to fishing mortality and 2) fishers implement best practice measures focused on avoidance, selectivity and survival on board. The exemption is granted for three years and member states have to report annually on the progress. Catches of picked dogfish and deep water sharks have been prohibited to allow discarding to continue but with a limited bycatch allowance to allow landings of unintended dead bycatch.

There are also technical measures being implemented at the RFMO level, like the prohibition on the use of wire trace or of "shark lines" in longline fisheries targeting tuna and billfish in the WCPFC (CMM2014-05), or the implementation of non-entangling FADs in the purse seine fishery (IOTC Resolution 18/08, IATTC Resolution C-18-05) aimed at reducing shark bycatch.

There are also management measures promoting the prompt release unharmed of several endangered stocks (e.g. ICCAT Res. 2010/08, 2011/08 and 2012/09 on the conservation of hammerhead, silky and thresher sharks, respectively; WCPFC CMM2011-04 and CMM2013-08 for oceanic whitetip and silky sharks, respectively; etc).

For an overview of RFMO measures see Chapter 3 and Annex 1

Limitations

The Landing Obligation applies to species that are subject to catch limits, not to other bycatch species that have no quota limitations but may frequently appear

in the catches. These species also fall outside the scope of research on post release survival.

The prohibited species list in the TAC and quota regulation prohibits targeting, transhipping and landing and requires prompt release post capture. It does not require operators to implement selectivity measures to reduce unintended bycatches.

The action under 2.1.5 does not provide a clear target for increasing selectivity across the EU fleet.

Future Considerations

The Landing obligation has led to a stimulus of research on the post release survival of a variety of skate species in different gears but no concerted effort has been undertaken taken to have an overview of the level of survival for species that frequently appear in bycatch.

Selectivity measures for skates developed under the LO exemption could be assessed for their functionality for other elasmobranch species.

Possible progress indicators

The annual reports from Member State groups provide an overview of the measures taken to reduce unwanted catches of the elasmobranch under the exemption to the landing obligation.

Sub-objective 2.2 To minimize waste and discards from shark catches requiring the retention of sharks from which fins are removed and strengthening control measures.

ACTIO	ACTIONS RELATING TO THE FINNING REGULATION			
2.2.1	Confirm the ban of finning practices. As a general rule, it will be prohibited to remove shark fins on board and to tranship or land shark fins. Any exception to this rule will have to be fully justified on solid and objective grounds and documented prior to the issuing by the Member State of the special permit. Member States should not issue special permits to vessels that do not meet this condition.			
2.2.2	Consider a possible review of the 5% rule by requiring that in no case shall the weight of the fins exceed 5% of the dressed (gutted and beheaded) carcass weight of the shark catch. However, Member States that have set up and implemented data collection programmes that show that this percentage could be increased in certain cases, could do so up to a percentage corresponding to 5% of the live weight of the shark catch.			
2.2.3	For vessels of Member States that have been exempt from the obligation of landing sharks with fins attached, to introduce the requirement to land shark fins and carcasses at the same time in the same port.			

These actions can be considered closed as the EU implemented an Fins Naturally Attached policy for all EU vessels with no exemptions in 2013.

Limitations

Chapter 4 of this report gives a detailed overview of the current level of reporting and issues related to compliance and enforcement as well as validation of data provided.

Whilst the EU ban has been in in force for 5 years only NEAFC, NAFO and the IOTC (for fresh) have adopted a fins naturally attached policy for the fleet affected.

Future Considerations

See suggestions from EWG 2019 in Chapter 4

Possible Progress Indicators

See suggestions from EWG 2019 in Chapter 4

6.4.4 Overarching objective 3: to encourage a coherent approach between the internal and external Community policy for sharks.

ACTIONS RELATING TO OBJECTIVE 3: COHERENT APPROACH			
1.1.9	Request through the FAO and Regional Fisheries Management Organisations where appropriate that these organisations develop and implement Regional Shark Plans. and associated measures to assist in species identification and monitoring, as called for in the IPOA-Sharks, by mid- 2009 in order to report to the 15th Meeting of the CITES Conference of Parties.		
2.1.9	Provide international cooperation in CMS and CITES with a view to controlling shark fishing and trading.		
2.1.10	Examine the possible impact of market mechanisms on conservation measures, including for shark species within the framework of the ongoing evaluation of the Common Market Organisation in fishery and aquaculture products.		

Developments since the CPOA

RFMOs have started to undertake assessment and some management and conservation measures are in place (e.g. GFCM shark strategy, WCPFC comprehensive shark management strategy; regional seas biodiversity plan for the Mediterranean, ICCAT shark species stock assessments³⁹) none of these constitute a Regional Plan of Action. In 2017 the Western Central Atlantic Fisheries Commission, which does not have the status of an RFMO, made a draft RPOA but this was not finalised in plenary. The only RFMO with an adopted RPOA is the bilateral Argentina/Uruguay Comisión Técnica Mixta del Frente Marítimo/Joint Technical Commission of the Maritime Front (CTMFM).

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³⁹ https://www.iccat.int/en/assess.html

The EU is a signatory to both CITES and CMS and has supported proposals for listings of sharks in these MEAs (See also Chapter 7).

The EWG notes that action 2.1.10 is not within the competence of the EWG to assess

Limitations

No RFMO's to which the EU or its MS are party, have a formally agreed regional shark plan. However, as noted above action 1.1.9 consists of two distinct actions one is the formal adoption of RPOA's on which there has been limited progress the other asks for the development of management measures which is inherent to the mandate of the RFMOs and has therefore been met.

The CITES shark and ray listings are globally binding, unless Parties have taken out reservations on the listings, and require Parties to complete CITES provisions prior to international sales of Appendix II listed shark commodities. However, CITES only regulates international trade; domestic fisheries and national consumption are unaffected. Friedman et al. (2018) concluded that CITES influence on management change, although small, had had a largely positive impact during the two and a half years since the shark listings that came into force in 2014, although it was recognised that States will find it difficult to trade legally in products from RFMO prohibited species, because CITES listings improve compliance monitoring for RFMO CMMs. Some countries have appointed fisheries experts to advise their CITES Authorities on the status of their national stocks and enable them to issue the required Non-Detriment Findings (NDFs) and CITES Parties have been making use of the NDF guidance and capacity building workshops funded by the EU and member states. Many Parties will be unable to issue Legal Acquisition Findings (LACs) for the majority of the highly migratory pan global pelagic sharks and rays that were already prohibited by the RFMOs or protected nationally, and CITES trade records will be limited in number for species which may not legally enter trade, although domestic consumption of species taken within EEZs can continue.

The RFMO prohibitions and listing of sharks in multilateral environmental instruments also have implications for on-going fisheries data collection, movement of research samples, illegal trade and the trade values of these renewable resources, which can complicate data collection efforts needed for scientific underpinning of sound management. Some RFMOs have adopted Conservation Management Measures (CMMs) to address the collection of samples from prohibited species, and there is CITES guidance for the non-commercial export and import of samples from listed species. Having clear guidance and harmonisation on this subject could be beneficial.

Future Considerations

Continue work to promote and assist RFMO's in developing formal shark plans in the context of the IPOA sharks.

There is a guidance for Non-detriment findings for sharks funded by the EU and Member States which could be further implemented and once this is in place the numbers of Non-detriment findings (NDFs) issued and published on the CITES website will be informative (recognising that this is not mandatory), as will the totality of the CITES trade reported on the CITES Trade Database (https://trade.cites.org/).

6.5 Linking objectives

The EWG discussed four levels of organisation which could be developed for the implementation of the three main objectives of the CPOA: 1. an agreed system and clear guidelines for data collection; 2. theoretical models for the application of knowledge; 3. an institutional framework for legislation and management; and 4. organisation of stakeholder involvement. A first impression of how this might look is given in Table 6.3. These operate at national, regional or international level.

Table 6.3 Levels of organisation needed for the implementation of the three main objectives of the CPOA and examples for each of these levels. These can be national, regional or international

Objectives of CPOA	Data collection system	Knowledge application mechanism	Management/ institutional <u>framework</u>	Stakeholder involvement mechanism
Broaden the knowledge both on shark fisheries and on shark species and their role in the ecosystem Ensure that directed fisheries for shark are sustainable and that by-catches of shark resulting from other fisheries are properly regulated	Biological data Distribution of shark populations irt distribution of fisheries DNA Catch & landings Discards Market sampling Observer programmes Trade data e-logbooks Buyers-sellers logbooks	Population dynamics Habitat utilisation Migratory patterns Food web dynamics Stock assessments Estimates of exploitation rates or (fishing) mortality Setting fishing limits Development of spatial measures Insight into threats to shark populations Analysis of trade patterns	Scientific institutes Fishing industry Legislation (incl. FR) Fisheries/scientific institutes Cooperation RFMOs MSC	ID-guides Training Advisory councils
Encourage a coherent approach between the internal and external Community policy for sharks	Overview of current management plan(s) and protection in (inter)national treaties	Method for measuring effectiveness of management measures	Government, local government and NGOs RFMOs (Inter)national treaties	Regularly report achievements with stakeholders

The analyses of the implementation of the Finning Reports and CPOA have highlighted the fact that are information and data which are not necessarily easily accessible, but could be accessed and linked in such a way that might benefit the implementation of the Finning Regulation and CPOA. For example, development of a guidance to the use of the different fisheries data-bases which could be used to better understand the fleet segment catching sharks; and the perceived non-alignment of reporting for different areas of legislation, whereby progress made in the management and conservation of sharks by countries is not always recorded as contributing to the CPOA.

In any future revision of the CPOA mechanisms to better link the objectives could be introduced. This can be visualised by taking the different levels of organisation into account and would include actions such as developing decision tools, for example to measure the effectiveness of management, as well as identifying how to link the different layers of legislation at national, regional and

international levels and providing guidance on the use of available data-bases. The EWG did not develop this approach further.

6.6 Conclusions

The EWG notes that assessing the actions laid out in the CPOA was hampered by the lack of concrete (SMART) targets for most of the actions which would allow measuring the implementation and progress in a consistent format. Moreover, some of the actions have text which is non-specific or open to different interpretations whereby it is unclear what exactly is being asked for. There was also repetition of actions in different categories. Similar consideration were already flagged in the Impact Assessment on the CPOA proposal conducted by DG Mare in 2009, where it was proposed to merge certain actions and rewrite them so they would include measurable goals (COM(2009) 40 final).

The EWG reviewed each of the actions related to the Objectives and Subobjectives of the CPOA (Annex 5). Based on this analysis the results have been clustered into nine areas of related actions and the development, limitations, progress and suggestions for future considerations have been made. Significant progress has been made in all actions relating to the fins-naturally attached actions as the Finning Regulation is now EU legislation and these actions can be considered done. Progress has been made in all actions, and most of future considerations are to do with improving transfer of knowledge and information between organisations and/or levels of organisation as seen in Table 6.3.

The EWG did not have time to specify the future considerations further and suggests this could be part of any future review or revision of the CPOA.

In its response to the Commission the EWG 19-17 requests that the STECF take into account the following proposals.

The EWG proposes that there should be defined periodic reviews of the existing CPOA in line with the recommendations of FAO (1999) and from the 2009 Impact Assessment (Monitoring and evaluation: an interim evaluation report on the qualitative and quantitative implementation of the programme and on the results so far achieved after three years of implementation; a communication on the continuation of the programme; a full evaluation report after six years of implementation.) (CEC, 2009)

The EWG notes that elements of the CPOA are now obsolete (e.g. on fins naturally attached) and many of the identified actions do not have targets with measurable indicators against which to assess progress through time. Hence, the EWG further proposes a revision of the CPOA to identify clear, measurable and time-bound targets, including mechanisms such as decision tools and legislation for linking the main objectives (data and research <> management and legislation <> communication and coherence) and a guidance on how to implement this.

The EWG considers that the status of the elasmobranchs in the Mediterranean Sea is of particular concern. Consequently any POA could usefully be undertaken as part of a regional management plan including regional fisheries organisations i.e. GFCM. This would offer management and conservation opportunities for shared stocks, migratory species and species of highest conservation concern. The EWG therefore proposes that a RPOA-Shark is developed for the Mediterranean and Black Seas.

Considering action 1.1.9 (Request through the FAO and Regional Fisheries Management Organisations where appropriate that these organisations develop and implement Regional Shark Plans) and the 2009 Impact Assessment (Table 3 p 14) the EWG further proposes that work is continued with relevant bodies to which EU MS are Party (including ICCAT, NEAFC and CECAF) to support regional cooperation under the IPOA-Sharks model.

7 IMPACT THAT EU FISHERIES HAVE HAD ON SHARK POPULATIONS WORLDWIDE

The EWG was asked to consider the impacts that EU fisheries have had on elasmobranch stocks worldwide, particularly in relation to the CPOA. The EWG considered four aspects:

- the role of the EU fleets in relation to elasmobranch fisheries, based on the FAO FishStat database;
- progress in fisheries management prior to and following the CPOA according to verifiable indicators identified in the European Community Plan of Action for the Conservation and Management of Sharks Impact Assessment (CEC, 2009);
- o evidence for recovery of depleted species;
- o evidence of international and regional cooperation

7.1 Relative importance of EU fleets in relation to elasmobranch fisheries

EU fisheries continue to represent a major proportion of reported international landings. Three MS (Spain, Portugal and France) are among the world's 20 largest fishing nations reporting landings of elasmobranchs to FAO during the period 2008–2017. Most of the EU catches are blue shark and shortfin mako, which have a high market value for their meat (see also Chapter 4.4). Indonesia, India and Spain have consistently been the three main fishing nations in terms of reported landings over the past 20 years (FAO FishStatJ, 2019). When considering the reported landings of all EU MS fleets combined, EU fleets have accounted for an average of 13% of the world's elasmobranch catches (Figure 7.1). Spain, Portugal, France and the United Kingdom are the four main MS landing elasmobranchs (Figure 7.2). Whilst MS vessels operate primarily in the North Atlantic, there are important fisheries in both the Central and South Atlantic, as well as the Indian and Pacific Oceans (Figure 7.3).

The year before the CPOA was adopted, in 2008, FishStat data showed that 67% of total elasmobranch landings reported by EU MS were reported to species level, 10% by family or genus (reported as nei = not elsewhere identified), and 23% classified as "sharks, rays, skates, etc. nei", "rays and skates nei", or "various sharks nei". This compares with 24% of global landings (all countries) reported at species level, and 76% under groupings (Cashion *et al.*, 2019). By 2017, the most recent year for which landings data are available on FishStatJ, 87% of EU landings of chondrichthyan fishes were species-specific (Figure 7.4), compared with 38% of global chondrichthyan landings reported by species.

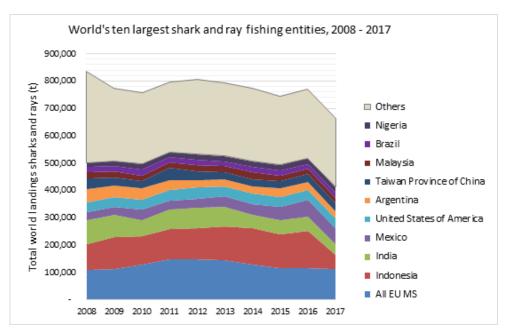


Figure 7.1: Total reported landings (tonnes) of elasmobranchs by EU MS (combined) and other nations. Data source: FAO FishStatJ (2019).

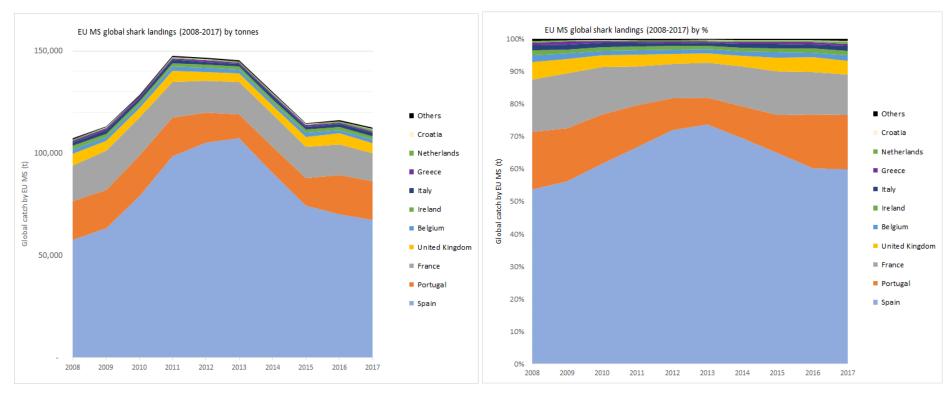


Figure 7.2: Total reported landings of elasmobranchs by EU MS by tonnes (left) and % (right). Data source: FAO FishStatJ (2019).

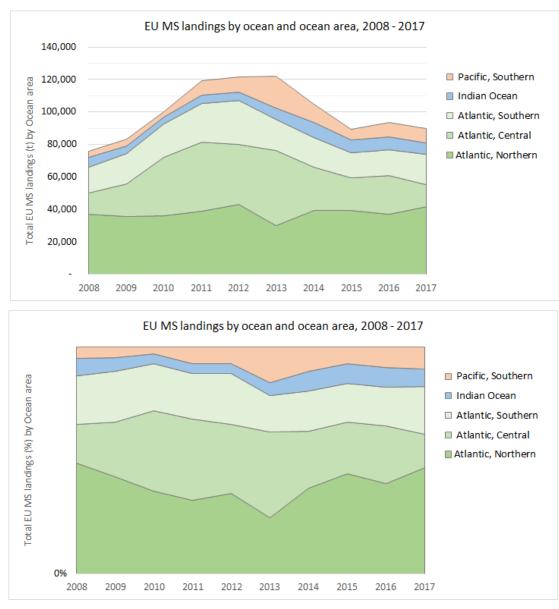


Figure 7.3: Total reported landings of elasmobranchs of EU MS by ocean area by tonnes (top) and % (bottom). Data source: FAO FishStatJ (2019).

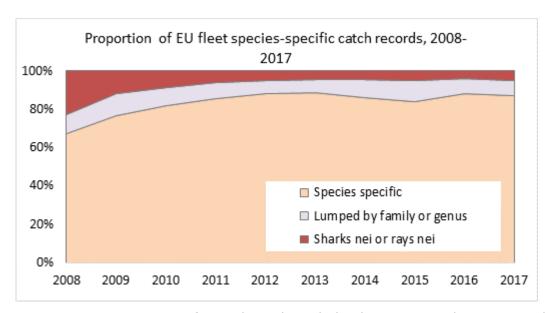


Figure 7.4: Percentage of EU elasmobranch landings reported to species-level (2008-2017).

7.2 Progress in the fisheries management of elasmobranch fisheries since the CPOA

The EWG noted that the majority of elasmobranch stocks are data-limited and so ascertaining the status of such stocks for periods prior to, and subsequent to, the CPOA is not possible. Hence, it is not possible to determine a metric such as 'the proportion of elasmobranch stocks fished sustainably' for periods before and after the implementation of the CPOA.

The EU had previously suggested potential indicators to monitor the CPOA (see Section 8 of CEC, 2009), and a qualitative evaluation of these does allow some examples of where there has been progress since the CPOA to be given (Table 7.1). Whilst there have been an increased number of published studies relating to elasmobranchs in European seas, time constraints prevented the EWG from quantifying these over time.

Table 7.1: Potential "objectively verifiable indicators" (from EC, 2009) and a qualitative evaluation.

Potential indicators	Pre-CPOA	Post-CPOA
Activity and outputs of elasmobranch-specific Working Groups	ICES WGEF had been meeting annually in years immediately prior to CPOA. In 2008, ICES provided qualitative advice for basking shark, kitefin shark, porbeagle, Portuguese dogfish and spurdog, as well as advice for the main demersal elasmobranchs by area for the North Sea, Celtic Seas and Biscay-Iberian Ecoregions.	As of 2019, ICES now provides advice for ca. 55 stocks of elasmobranchs. There is currently one Category 1 assessment (spurdog) and many of the demersal elasmobranchs have Category 3 assessments. Actions to identify rate of discarding and discard survival
	The ICCAT shark sub-group met periodically from 1996, when it was established, and undertook initial assessments for blue shark and shortfin mako in 2008.	From 2009 onwards, the ICCAT shark sub-group has generally met annually, and has further developed assessments for both blue shark and shortfin mako, conducted exploratory assessments for porbeagle (with ICES WGEF) and undertaken an Ecological Risk Analysis (ERA) for oceanic sharks.
	GFCM The GFCM had not adopted any species-specific management measures for shars and rays prior to the adoption of the CPOA	Recommendation GFCM/42/2018/2on fisheries management measures for the conservation of sharks and rays in the GFCM area of application, amending Recommendation GFCM/36/2012/3, as well as previous recommendations (GFCM/39/2015/4 and GFCM/35/2011/1) dealing with management and conservation.
Number and focus of species- and fisheries- specific management mechanisms elucidated	Quota management There were a limited number of catch limits for elasmobranchs in Atlantic waters prior to the CPOA. TACs were in place for skates and rays (North Sea; since 1999), spurdog (North Sea; since 2000; elsehwhere since 2007) and deepwater sharks (since 2005).	Quota management In 2009, TACs were introduced for skates and rays in other ecoregions, with species-specific reporting for the main commercial species established in 2008 (North Sea) and 2009 (elsewhere). A TAC has been introduced for the entire North Atlantic blue shark stock under ICCAT Rec 16-12 (also transposed in EC legislation), but there is no quota system. There are also management measures for shortfin mako.
	Prohibited listings From 2007-2008, two species (basking shark and white shark) were listed as prohibited species in	Prohibited listings Increased number of prohibited species under EU legislation, to implement RFMO prohibitions, including porbeagle,

Potential indicators	Pre-CPOA	Post-CPOA			
	EU fishing opportunities	bigeye thresher, hammerheads (except <i>Sphyrna tiburo</i>), sawfish (also listed in CITES Appendix I), guitar fish, angel shark and mobulid rays.			
Shark populations recover to sustainable levels	The EWG note that the majority of elasmobranch stocks are data-limited and so ascertaining the status of such stocks for periods prior to, and subsequent to, the CPOA is not possible. The EWG notes, however, that there is evidence of some deplted stocks showing signs of revovery (see below).				
Number of species in the IUCN Red List CR, EN & VU categories	The EWG did not consider that the number of species in the IUCN Red List Threatened categories could be used as an indicator at the present time. Whilst there have been assessments for the North-east Atlantic (Gibson et al., 2008) and Mediterranean (Cavanagh & Gibson, 2007) prior to the CPOA, and a recent assessment of European marine fish (Nieto et al., 2015), these assessments (Table 7.3) differ in both geographical extents and in the assessors. Hence, any changes in status may not reflect temporal change. Members of the EWG were aware that there is ongoing work to develop a Red List Index to provide a more robust indicator of temporal change, and future reviews of updated processes will be needed to validate this. Consequently, the EWG considered that this metric is not appropriate for assessing change at the present time. For further caveats on the Red List, see Coelho <i>et al.</i> (2019).				
Uptake and consistency of internal EC regulations related to sharks into RFMO resolutions	Since 2008, the annual regulations on fishing opportunites have provided more comprehensive information on the special provisions for EU vessels fishing in RFMO areas. The prohibited listings used by ICCAT, and other RFMOs such as NEAFC, IOTC, WCPFC, IATTC for species that also occur in shelf seas are included as "prohibited species" in the regulations (see Section 6).				
Increased proportion of catches and landings reported to species level.	Many MS reported generic landings of elasmobranchs (see above for FAO data).	An increased proportion of landings are being reported to species-level. This is particularly evident in relation to skates and rays (Rajiformes), as noted in ICES' Advice Sheets for 'other skates and rays' (e.g. ICES, 2019b).			
		The EWG would note, however, that there are some data quality issues in reported landings data (ICES, 2016).			
	The EWG also note that any future development of potential metrics relating to species-level reporting should consider coding errors and the prohibitions established over time, which may influence some potential metrics.				
Level of observer coverage on high priority and other fisheries.	The EWG was unable to evaluate this with the time available The EWG was unable to evaluate the with the time available				
DCR regulations update and strengthened to reflect the Action	te and this with the time available with the time available gthened to				

Potential indicators	Pre-CPOA	Post-CPOA
Plan.		
New stocks assessed	See above (Activity and outputs of elasmobranch-specific Working Groups)	See above (Activity and outputs of elasmobranch-specific Working Groups)
New national expertise developed	The EWG was unable to determine the earlier status of "national expertise"	The EWG noted that several MS have seen an increased focus on elasmobranch research in fisheries institutes and participation in relevant assessment groups since the CPOA. It was not possible, however, to assess developments in national expertise, with some national expertise also being within the academic sector.
RACs incorporate shark management issues	_	The North Sea Advisory Council (NSAC) and North Western Waters Advisory Council (NWWAC) worked closely with the EC and regional groups in developing the exemption to the Landing Obligation for skates and rays.
		The NWWAC has a Focus Group on skates and rays and in 2018 gave advice on the management of skates and rays in the EU.
		In 2018 the NSAC requested the EC to review of the prohibited species list in the TAC and quota regulation, to make it consistent and transparent ⁴⁰ .
MS public access portal providing access to relevant information on	The EWG was unable to determine the earlier status of public access	Some MS have access to government- funded research projects, including those relating to elasmobranchs.
sharks		Other bodies (e.g. ICES, ICCAT) have portals where reports and data can be accessed by the public.
EFF fund uptake includes education & awareness building for shark conservation	The EWG was unable to evaluate this with the time available	The EWG was unable to evaluate this with the time available, although the EWG was aware that EFF projects examining elasmobranch fisheries had been funded in some MS.
Number of fisheries where effort and / or catch is limited (all fishery / spatial / seasonal) due to	The EWG was unable to evaluate this with the time available	The EWG was unable to evaluate this with the time available

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 $^{^{\}rm 40}$ NSAC 15-1617 Prohibited Species Listing (amended) - $\underline{\rm http://nsrac.org/wp-content/uploads/2016/12/15-1617-Prohibited-Species-Listing-amended.pdf}$

Potential indicators	Pre-CPOA	Post-CPOA
shark-related concerns		
Imposition of a discard ban (except for certain species / fisheries where post-discard mortality is acceptable)	No discard ban	Regulation (EU) No 1380/2013 that reformed the Common Fisheries Policy established an obligation to land all catches ("the landing obligation") for species subject to catch limits. The landing obligation. The landing obligation does not apply to species that are listed as "prohibited" (which includes a range of elasmobranchs) and species for which "scientific evidence demonstrates high survival rates". Skates currently have a derogation from the landing obligation.
Imposition of maximum size limited for certain species	No maximum size regulations	In 2009, a maximum landing size of 210 cm (fork length) for porbeagle and 100 cm (total length) for spurdog were introduced in Regulation (EC) No 43/2009. These restrictions were phased out as fishing opportunities were reduced (through zero TACs and prohibitions).
Amendments to Reg. 1185/2003, with sufficiently justified applications for derogations	EC Regulation 1185/2003 contained a provision for fins to be removed from dead sharks (with fins to be at least 5% of live weight, for those vessels with a special permit).	EU Regulation 605/2013 removed the exemptions, thus requiring fins to be naturally attached (though fins can be partially sliced through and folded to faciltate storage)
Other	CMS	CMS
	Whale shark listed on Appendix II (1999), with white shark (2002) and basking shark (2005) listed on Appendix I. Further listings (e.g. various lamnids) made in 2008.	As of 2019, various other elasmobranchs, including sawfish and mobulids, have been listed on Appendix I. A range of other species (e.g. thresher sharks, some hammerheads and other oceanic sharks and most recently blue shark) listed on Appendix II.

CEC (2009) also indicated which fisheries would be "priorities for action". The EWG noted that some fisheries management measures have been implemented for the main fisheries in EU waters that were considered of 'high' importance since the CPOA was introduced (Table 7.2). Consequently, the EU fisheries that the EWG considered should be of 'higher' importance going forward would be those fisheries in the Mediterranean Sea, especially as this area contains a range of threatened elasmobranchs.

Table 7.2: The "Summary risk table showing priorities for action" from CEC (2009), with EWG comments (last column). Note: The EWG considered that some of the information presented in the original table may no longer be current, but has not updated the information at this time, with the original information on 'Nationality' of the fleets and 'Vulnerability' omitted here due to space limitations.

Region (RFO)	Main Gear type	Species	Exposure and vulnerability	Priority for action	EWG Comments on action since 2009
NE Atlantic skates and rays (ICES)	Trawl, nets	Various skates, rays and small shark species	High volume mixed fishery including some with high vulnerability	High	 ICES advise on more stocks TACs introduced and assessed in 2018 The most threatened species 'prohibited' Temporary (3 yr) exemption in landing obligation, with mandatory research and mitigatory measures for avoidance, selectivity and survival Research on discard survival
NE Atlantic deep sea sharks (ICES)	Gillnet & longline	Portuguese dogfish and Gulper shark	Low volume catch but probable high discards	High	 TACs reduced (for bycatch in the black scabbardfish longline fishery Some species listed as 'prohibited'
Mediterranean (GFCM)	Gillnets	Smooth-hound, tope, spurdog	Large number of vessels in a mixed fishery with increasing	Medium	Limited progress to date, and the EWG considered these

			catches of vulnerable species (e.g. smooth-hound)		fisheries to now be of high priority for action.
Mediterranean (GFCM)	Trawl	Various skates, rays, guitarfish and small shark species	Extensive mixed fishery including some with high vulnerability	Medium	Limited progress to date, and the EWG considered these fisheries to now be of high priority for action.
Atlantic pelagic sharks (ICCAT)	Purse seine, Longlines	Blue shark	High volume and medium sensitivity	Medium	Since 2017, a TAC for blue shark has been included in EU fishing opportunities.
Atlantic pelagic sharks (ICCAT)	Purse seine, Longlines	Mako, porbeagle	Misreporting and high sensitivity	High	EU vessels are prohibited from retaining and landing porbeagle in all waters
Indian Ocean pelagic sharks (IOTC)	Longline	Blue shark	High volume	Medium	• -
Indian Ocean pelagic sharks (IOTC)	Longline	Mako, porbeagle	Misreporting and high sensitivity	High	EU vessels are prohibited from retaining and landing porbeagle in all waters
Indian Ocean pelagic sharks (IOTC)	Purse seine	Unknown	Little known exposure and vulnerability	?	• -
Pacific Ocean pelagic sharks (WCPFC)	Purse seine	Silky shark, mako, porbeagle & oceanic whitetip	little known exposure and high vulnerability	Medium	Silky and oceanic whitetip cannot be retained, transhipped, landed under WCPFC and IATTC regulations.
Pacific Ocean pelagic sharks (WCPFC)	Longline	Blue shark, mako	Low volume catch with some high sensitivity	Medium	The Latest assessment of North Pacific shortfin

			(mako)		mako and North Pacific blue shark by ISC suggest no overfishing and the stock is not overfished. In the case of south pacific blue shark and south pacific shortfin mako, the status is uncertain.
Southern Ocean	Longline	Rajiformes	Low volume and low sensitivity	Low	

There have been three regional IUCN Red List assessments covering EU waters in the past 12 years (Table 7.3), and re-assessments are on the way. Due to the differences in the spatial coverage and different assessors over time, the EWG did not consider the changes in status to be a robust indicator of change over time.

Table 7.3: IUCN Red Lists assessments for European elasmobranchs for the period after the CPOA (Nieto *et al.* (2015) European waters) and before the CPOA (Gibson *et al.*, 2008 for Atlantic waters; Cavanagh & Gibson (2007) for the Mediterranean Sea). Note: Given the differences in spatial coverage and different assessors over time, the EWG did not consider these listings provide a robust indicator of temporal change.

	Nieto <i>et al</i> .	011 (2222)	Cavanagh & Gibson
Species	(2015)	Gibson et al. (2008)	(2007)
Species	European	Global (NE Atlantic if different)	Mediterranean Sea
Heptranchias perlo	DD	NT	VU
Hexanchus griseus	LC	NT	NT
Hexanchus nakamurai	DD	DD	DD
Chlamydoselachus			
anguineus	LC	NT	
Ginglymostoma cirratum		DD	
Carcharias taurus	CR		CR
Odontaspis ferox	CR	VU	EN
Odontaspis noronhai	DD		
Mitsukurina owstoni	LC	LC	
Carcharodon carcharias	CR	VU	EN
Isurus oxyrinchus	DD	VU	CR
Isurus paucus	DD	VU	
Lamna nasus	CR	(CR)	CR
Cetorhinus maximus	EN	(EN)	VU
Alopias superciliosus	EN	VU	DD
Alopias vulpinus	EN	(NT)	VU
Apristurus aphyodes	LC	DD	
Apristurus laurussonii	LC	DD	
Apristurus manis	LC	DD	
Apristurus melanoasper	LC	DD	
Apristurus microps	LC	LC	
Galeus atlanticus	NT	NT	NT
Galeus melastomus	LC	LC	LC
Galeus murinus	LC	LC	
Scyliorhinus canicula	LC	LC	LC
Scyliorhinus stellaris	NT	NT	NT
Pseudotriakis microdon	DD	DD	
Galeorhinus galeus	VU	(DD)	VU
Mustelus asterias	NT	LC	VU
Mustelus mustelus	VU	(DD)	VU
Mustelus punctulatus	VU	DD	DD
Carcharhinus altimus	DD		DD
Carcharhinus brachyurus	DD		DD

Species	Nieto <i>et al</i> . (2015)	Gibson <i>et al</i> . (2008)	Cavanagh & Gibson (2007)
Carcharhinus brevipinna			DD
Carcharhinus falciformis	DD	NT	
Carcharhinus limbatus	DD		DD
Carcharhinus longimanus	EN	VU	
Carcharhinus obscurus	DD	VU	DD
Carcharhinus plumbeus	EN	VU	EN
Galeocerdo cuvier	DD	NT	
Prionace glauca	NT	NT	VU
Sphyrna lewini	DD	EN	
Sphyrna mokarran	DD		
Sphyrna zygaena	DD	NT	VU
Dalatias licha	EN	(VU)	DD
Isistius brasiliensis	NA	()	
Isistius plutodus	LC		
Squaliolus laticaudus	LC	LC	
Centroscyllium fabricii	LC	(NT)	
Etmopterus princeps	LC	DD	
Etmopterus pusillus	DD	LC	
Etmopterus spinax	NT	(NT)	LC
Centroscymnus coelolepis	EN	(EN)	LC
Centroscymnus owstoni		LC	
Centroselachus crepidater	LC	LC	
Scymnodalatias garricki	DD	DD	
Scymnodon ringens	LC	DD	
Somniosus microcephalus	NT	NT	
Somniosus rostratus	DD	DD	LC
Zameus squamulosus	DD	DD	
Oxynotus centrina	VU	VU	CR
Oxynotus paradoxus	DD	DD	
Centrophorus granulosus	CR	(CR)	VU
Centrophorus lusitanicus	EN	VU	
Centrophorus squamosus	EN	(EN)	
Centrophorus uyato	VU	DD	
Deania calcea	EN	(VU)	
Deania hystricosa	DD	DD	
Deania profundorum	DD	LC	
Squalus acanthias	EN	(CR)	EN
Squalus blainville	DD	DD	
Squalus megalops	DD	DD	
Echinorhinus brucus	EN	DD	DD
Squatina aculeata	CR		CR
Squatina oculata	CR		CR
Squatina squatina	CR	CR	CR
Torpedo marmorata	LC	DD	LC

Species	Nieto <i>et al</i> . (2015)	Gibson <i>et al</i> . (2008)	Cavanagh & Gibson (2007)
Torpedo nobiliana	LC	DD	DD
Torpedo torpedo	LC	DD	LC
Glaucostegus cemiculus	EN	EN	EN
Rhinobatos rhinobatos	EN	EN	EN
Rhinoptera marginata	DD	NT	NT
Pristis pectinata	CR	CR	CR
Pristis pristis	CR	CR	CR
Bathyraja pallida	LC	LC	
Bathyraja richardsoni	LC	LC	
Bathyraja spinicauda	LC	(LC)	
Amblyraja hyperborea	LC	LC	
Amblyraja jenseni	LC	LC	
Amblyraja radiata	LC	(LC)	
Dipturus batis	CR	CR	CR
Dipturus nidarosiensis	NT	NT	
Dipturus oxyrinchus	NT	NT	NT
Leucoraja circularis	EN	VU	EN
Leucoraja fullonica	VU	NT	DD
Leucoraja melitensis	CR		CR
Leucoraja naevus	LC	LC	NT
Malacoraja kreffti	LC	LC	
Malacoraja spinacidermis	LC	LC	
Neoraja caerulea	LC	DD	
Neoraja iberica	LC	DD	
Raja asterias	NT		LC
Raja brachyura	NT	NT	DD
Raja clavata	NT	NT	NT
Raja maderensis	VU		
Raja microocellata	NT	NT	
Raja miraletus	LC	LC	LC
Raja montagui	LC	LC	LC
Raja polystigma	LC		NT
Raja radula	EN		DD
Raja undulata	NT	EN	DD
Rajella bathyphila	LC	LC	
Rajella bigelowi	LC	LC	
Rajella fyllae	LC	LC	
Rajella kukujevi	LC	DD	
Rajella lintea	LC	LC	
Rostroraja alba	CR	(CR)	CR
Dasyatis centroura	VU	LC	NT
Dasyatis marmorata	DD		DD
Dasyatis pastinaca	VU	(NT)	NT
Himantura uarnak			DD
Pteroplatytrygon violacea	LC	LC	NT

Species	Nieto <i>et al</i> . (2015)	Gibson <i>et al</i> . (2008)	Cavanagh & Gibson (2007)
Taeniurops grabata	DD		DD
Gymnura altavela	CR	VU	CR
Myliobatis aquila	VU	DD	NT
Pteromylaeus bovinus	CR	DD	
Mobula mobular	EN	EN	EN
Chimaera monstrosa	NT	NT	NT
Chimaera opalescens	LC		
Hydrolagus affinis	LC	LC	
Hydrolagus lusitanicus	LC	DD	
Hydrolagus mirabilis	LC	NT	
Hydrolagus pallidus	LC	LC	
Harriotta haeckeli	LC	LC	
Harriotta raleighana	LC	DD	
Rhinochimaera atlantica	LC	LC	

7.3 Evidence of recovery of depleted species

There have been many published studies documenting declines in Europe's elasmobranch stocks, including reduced population biomass (De Oliveira *et al.*, 2013) and reduced geographical range (e.g. Brander, 1981; Sgoutti *et al.*, 2016).

The EWG noted that many of the Category 3 assessments (which use indicators of stock size based on fisheries independent survey data) conducted by ICES WGEF in relation to demersal elasmobranchs have shown increasing stock size indicators (ICES, 2018, 2019a). Similarly, the MEDITS trawl survey in the Mediterranean, in particular in Italian waters, has also shown increasing catch rates for a range of demersal elasmobranchs (Figure 7.5), including for various scyliorhinids and skates (Rajidae) (Serena, 2014).

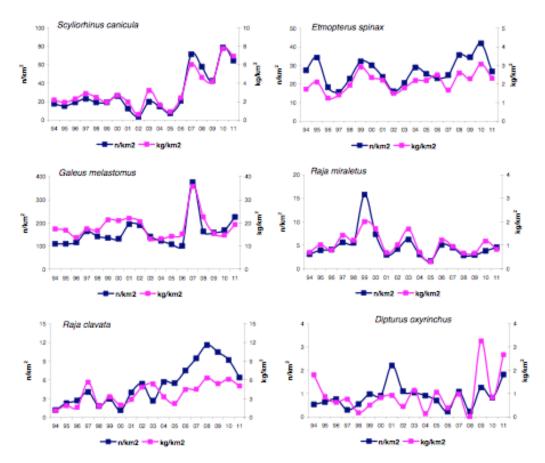


Figura 1. GSA 9. Indici di densità (n/km²) e di biomassa (kg/km²) delle specie di Condroitti più abbondanti stimati sull'areale di distribuzione (serie MEDITS 1994-2011)

Figure 7.5: Catch rates of six demersal elasmobranch in the MEDIRS survey (left panel: lesser-spotted dogfish, black-mouth dogfish and thornback ray; right panel: velvet belly, brown ray and long-nosed skate. Source: Serena, 2014.

Furthermore, there is some evidence indicating that some depleted and/or vulnerable species may be starting to recover. For example, although still at much lower levels than 50 years ago, the catch-per-unit-effort for the common skate complex (primarily *Dipturus intermedius*) in the North Sea IBTS has been increasing in recent years (Figure 7.6; ICES, 2018), potentially in response to reductions in fishing effort and/or the prohibited species listing.

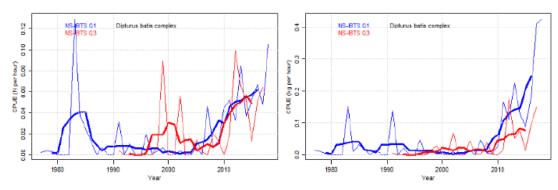


Figure 7.6: Catch rates of the common skate complex in the North Sea IBTS in Q1 (blue lines) and Q3 (red lines) with 3-year running mean (thick lines) indicated. Data refer to numbers (left) and biomass (right). Source: ICES (2018).

The MEDiterranean Large Elasmobranchs Monitoring (MEDLEM) database has recorded an increase in records for *Mobula mobular* in the Mediterranean Sea, from both incidental catches and direct observations (from aerial surveys). It would be expected that the

increased controls and phasing out of pelagic driftnets has reduced fishing pressure on this species over the last decade. Recent studies carried out with aerial surveys have highlighted two Mediterranean areas where *M.mobular* is concentrated (north western Mediterranean and Adriatic Sea), with a third area near the Gaza Strip in the eastern Mediterranean (Mancusi *et al.*, submitted).

7.4 Evidence for international and regional cooperation

The EU and its MS have also been involved in other fora that consider the conservation of elasmobranch fish, some examples of which are detailed below.

7.4.1 CITES and CMS

The EU and its MS are Party to the **Convention on International Trade in Endangered Species (CITES)** and the **Convention on the Conservation of Migratory Species (CMS)**. Ten MS and the EU are also Signatories to the voluntary **CMS Memorandum of Understanding on the Conservation of Migratory Sharks**. The EU has been a co-sponsor of many proposals to list sharks and rays in the Appendices of CITES and CMS, and is a major leader of, and financial contributor to, the capacity-building initiatives of the CITES and FAO Secretariats that support the implementation of the CITES listings.

International trade in species listed in Appendix II of CITES (the majority of listed species) is regulated to ensure that it is legal, sustainable and traceable. CITES does not apply to internal trade between EU MS or the landings of CITES listed species captured in EU waters and landed in the EU, for which other EU regulations apply. It does apply to landings of CITES species caught in the high seas, and species caught in the EEZ of one CITES Party and landed in another. The sawfishes are the only chondrichthyan species listed in CITES Appendix I, which prohibits commercial trade.

Fisheries scientists, whose research can be hampered by the prohibitions adopted by the RFMOs for CITES listed shark species, would benefit from additional guidance on the procedures for importing non-commercial biological samples taken from CITES species on the high seas, or for shipments between CITES Parties.

The range States of migratory species listed in CMS Appendix I are required to protect these species, while Appendix II includes species with "unfavorable conservation status" or those which would benefit from international cooperation. Species can be listed in both Appendices. The CMS acts as a framework convention for species listed in Appendix II; it does not confer any direct protection, but encourages Parties to conclude global or regional agreements (binding or voluntary) for these species. The CMS Memorandum of Understanding on the Conservation of Migratory Sharks (Sharks MOU), concluded in 2012, is a non-binding agreement, backed by a conservation action plan, which applies to most of the sharks and rays listed in the CMS Appendices and a few additional species.

7.4.2 Regional cooperation

Two Regional Seas Conventions and Action Plans (RSCAPs) apply to EU MS waters. These are the Barcelona Convention in the Mediterranean and the OSPAR Convention in the Northeast Atlantic. Both RSCAPs promote the conservation of named threatened shark and ray species.

The OSPAR Convention for the Protection of the Marine Environment of the North-East Atlantic guides certain (non-fishing) activities in this region. It is implemented by the OSPAR Commission, which includes signatory countries, the EU and environment and industry NGOs. The OSPAR List of Threatened and/or Declining Species and Habitats has been developed to contribute to the implementation of the

OSPAR Biological Diversity and Ecosystem Strategy. It is based upon priority species and habitats nominated by Contracting Parties and observers to the Commission, and is used by the Commission to set biodiversity protection policies. In 2010, the Commission adopted OSPAR Recommendations for the protection of some <u>elasmobranchs</u>, and some of the OSPAR-listed shark and ray species are now prohibited species or are under a zero (or bycatch) quota in EU waters.

In the Mediterranean, the Barcelona Convention Protocol Concerning Specially Protected Areas and Biological Diversity in the Mediterranean (SPA/BD Protocol) lists Endangered and Threatened Species (Annex II) and Species Whose Exploitation is Regulated (Annex III). These include 24 and 9 cartilaginous fish species, respectively, identified by the regularly updated Action Plan for the conservation of Cartilaginous fishes (UNEP MAP RAC/SPA 2003).

These species lists have been adopted by the **General Fisheries Commission for the Mediterranean** (GFCM, the Regional Fisheries Management Organization) in a Decision that requires the 24 GFCM Contracting Parties to prohibit retention of Annex II species (which include not only regionally lost species (e.g. sawfish), but also formerly commercially valuable sharks such as shortfin mako), improve monitoring of species in both Annexes, and undertake capacity building to support these measures. The EU Regulation 2015/2102 implements the GFCM Recommendation, however, the awareness and enforcement of this regulation would be facilitated mentioning the species of the Annex II (SPA/BD Protocol) in the annual Council Regulation fixing the fishing opportunity, under the section on Prohibition or at least in the Section of the GFCM Agreement Area.

7.5 Conclusions

In relation to the four aspects identified by the EWG the following progress has been made:

- EU fisheries continue to represent a major proportion of reported international landings. Three MS (Spain, Portugal and France) are among the world's 20 largest fishing nations reporting landings of elasmobranchs to FAO during the period 2008–2017.
- The EWG considers that in the past 10 years progress in management and conservation of sharks has been made as measured against the potential "objectively verifiable indicators" defined in the the European Community Plan of Action for the Conservation and Management of Sharks Impact Assessment (CEC, 2009).
- There has been an increase in reporting of species to species level and evidence of recovery of depleted species such as the common skate complex in the North Sea.
- International and regional cooperation has intensified as can be seen by the increased cooperation between the EU and RFMOs, the uptake of management and conservation measures by regional conventions such as OSPAR and the Barcelona Convention, and the increase in numbers of species listed on CITES, CMS and the MoU sharks which have been supported by the EU.

8 CONCLUSIONS

8.1 Analysis of country reports finning regulation

The EWG analysed the national reports by the different Member States for the reporting period 2015 to 2019 and found several issues that hampered the analysis carried out.

These issues were related in some instances to the lack of specificity in the Regulation leading to different interpretation by MS. In others, some additional information, currently non mandatory according to the Regulation, but considered by the EWG as being of utmost importance for the assessment of the implementation was identified such as information on fleet segment catching sharks both within and outside EU waters.

The analyses of the information provided a good overview of the responses but were confounded by the lack of consistency in reporting per MS per year. The EWG considers that indicators could be developed which would take these discrepancies into account, but did not have time to do this.

In it's response to the Commission EWG 19-17 suggests that STECF takes the following proposals into account:

- Revise the current template (Annex 2) for the provision of information taking the following into consideration:
 - Provide a list of the species that must be mandatorily reported, according to the list of species that are susceptible of finning identified in section 4.3.1.
 - o Require the reporting of coverage by gear, area, fleet segment.
 - o Use of unique identifiers for landings that allow for the cross-checking of inspections and landing data.
- Explore the possibility of carrying out a risk-assessment to identify high risk fleets
- For quality control it is suggested to develop a way to carry out validation checks to make sure that data reported are consistent with what national authorities are reporting to the EU.

The EWG further suggests that nations carry out a fleet segment analysis of the data on EU waters and 'outside EU' waters (including EU-flagged vessels in RFMO and RFB waters) and include this in the report

8.2 Analysis of fisheries data

The preliminary complementary analysis conducted on two landings statistics datasets (DCF and FAO) for a selection of 'marketable fins' sharks' species, declared by EU Members fishing in EU and non-EU waters, was intended for exploring the differences in the variables available and the different potentialities of the datasets. In addition, the EWG 1917 evaluated the figures resulting from the two datasets, when the same selection of species, countries and areas were conducted.

The EWG 1917 noted an overall similarity of the relative trends in abundance, priority countries and species declared. When further details were analyzed in two regions outside EU waters where the EU fleets operate most, South East Atlantic (FAO area 34) and Indian Ocean (FAO areas 51 and 57), the two datasets were in line, highlighting both the Spain and Portugal as the main producers, with slight divergences in the quantities.

Observing the species-specific information available in 2008 from Spain, Portugal and UK, EWG 1917 observed in improvement in the quality of the information provided at species-specific level in respect to the following years. The low values of porbeagle, hammerheads and silky sharks observed in the two data sets from 2008-2013, will be due to the EU zero quota and NEAFC live release measure for porbeagle introduced in 2010, the ICCAT prohibitions on the retention of hammerhead sharks in 2010 (BYC 10-08 on hammerhead sharks) and silky sharks in 2011 (BYC 11-08 on silky sharks).

The DCF dataset allowed for a more detailed description of the landing data, including the fleet segmentation and the value at species level. However EWG 1917 expresses concern about the variability of the data made available by member states from year to year and

within the different fishing areas. EWG1917, in accordance with the EWG1906 and EWG1807 recommendations to stress the urgent need of provision for comprehensive species-specific data in non-EU waters and in Outermost regions by all the member states harvesting sea products in these areas.

The analysis of elasmobranch landings of the EU fleet at the fleet segment level done for the first time. This has highlighted the importance of the southern and eastern Atlantic (FAO 34) as an area where EU fleet is active. Elasmobranchs are included in the existing data calls aiming to collate data on biological characteristics, gear, fleet and effort. The EWG proposes that a guidance document is developed on the identification and application of the available fisheries data sets in order to understand the dynamics of those fleets 'catching' sharks.

For a more reliable description of the landing data it would be necessary to comprehend the discrepancies of the two datasets, thus to know more deeply the data reporting, the sources, the variable estimation with regard for example to eventual conversion factors to live weight and/or other data transformations. Moreover, it is advisable that the other datasets available (e.g. ACDR Aggregated Catch Data Report system) be added in a future comparison exercise. The EWG suggests that this work is carried out prior to any future evaluation of the implementation of regulations regarding shark fisheries and their management.

8.3 Implementation of Fins Naturally Attached

8.3.1 Implementation of Fins Naturally Attached outside EU waters

The fins naturally attached (FNA) policy has been implemented by the EU since 2013, without exception. In the past 5 years there have been 14 cases of non-compliance of a total of 24591 inspections. In all cases the nature of the non-compliance was clear (fins not attached) and the vessel was identified in many of the cases. The penalty was not always clear as it might have been pending at the time of reporting. The EWG can therefore conclude that there is no evidence that the FNA has not been complied with.

The EWG noted that quantification of relevant inspection/compliance in relation to those fleet segment that will likely have greater interactions with sharks with marketable fins cannot be quantified from the data provided in the current country reports. Furthermore, it is unclear if there has been double counting of inspections as it is known that inspections are being carried out on national and other EU country fleets, but this level of information is not always provided in the reporting.

In addition to country reports the EWG considers that the EU could usefully prepare an annual report of data of non-compliance of Non-EU vessels in EU waters. To add to the completeness of review of national reports as the current format of the national reports do not necessarily hold this information.

8.3.2 Implementation of Fins Naturally Attached outside EU waters

The Fins Naturally Attached policy applies to EU vessels regardless of where they fish and Regulation 605/2013 should be implemented:

- 1. by vessels in maritime waters under the sovereignty or the jurisdiction of Member States;
- 2. by vessels flying the flag or registered in Member States **in other maritime** waters."

No instances of non-compliance by the EU fleet in relation to the shark finning regulation in the Convention Areas have been reported by any of RFMOs mentioned above. Compliance is monitored against the Conservation and Management Measures of each Commission which include requirements to ensure compliance with the finning prohibition in force. Although the EU vessels should always be assessed against the 'fins naturally attached' criterion, no objective, quantitative information was available to the EWG to evaluate this. Furthermore, the mechanisms of enforcement and the level of surveillance

of the shark finning related CMMs are uncertain. Therefore, the EWG could not evaluate any progress in waters beyond national jurisdiction.

In response to the request by the Commission EWG 19-17 suggests that STECF take the following proposal into account – to discuss with the EU to liaise with non-EU states for information regarding mechanisms of surveillance, enforcement and prosecutions of EU vessels while outside of EU waters, in order to fully understand compliance of MS with the EU Finning Regulation.

Considering the progress made so far, and the issues identified with compliance, the EWG proposes that the EU continue in their efforts to ensure relevant RFMOs implement or maintain Fins Naturally Attached policies.

8.4 Community Plan of Action (CPOA) review

The EWG notes that assessing the actions laid out in the CPOA was hampered by the lack of concrete (SMART) targets for most of the actions which would allow measuring the implementation and progress in a consistent format. Moreover, some of the actions have text which is non-specific or open to different interpretations whereby it is unclear what exactly is being asked for. There was also repetition of actions in different categories. Similar consideration were already flagged in the Impact Assessment on the CPOA proposal conducted by DG Mare in 2009, where it was proposed to merge certain actions and rewrite them so they would include measurable goals (COM(2009) 40 final).

The EWG reviewed each of the actions related to the Objectives and Sub-objectives of the CPOA (Annex 5). Based on this analysis the results have been clustered into nine areas of related actions and the development, limitations, progress and suggestions for future considerations have been made. Significant progress has been made in all actions relating to the fins-naturally attached actions as the Finning Regulation is now EU legislation and these actions can be considered done. Progress has been made in all actions, and most of future considerations are to do with improving transfer of knowledge and information between organisations and/or levels of organisation as seen in Table 6.3.

The EWG did not have time to specify the future considerations further and suggests this could be part of any future review or revision of the CPOA.

In its response to the Commission the EWG 19-17 requests that the STECF take into account the following proposals

The EWG proposes that there should be defined periodic reviews of the existing CPOA in line with the recommendations of FAO (1999) and from the 2009 Impact Assessment (Monitoring and evaluation: an interim evaluation report on the qualitative and quantitative implementation of the programme and on the results so far achieved after three years of implementation; a communication on the continuation of the programme; a full evaluation report after six years of implementation.) (CEC, 2009)

The EWG notes that elements of the CPOA are now obsolete (e.g. on fins naturally attached) and many of the identified actions do not have targets with measurable indicators against which to assess progress through time. Hence, the EWG further proposes a revision of the CPOA to identify clear, measurable and time-bound targets, including mechanisms such as decision tools and legislation for linking the main objectives (data and research <> management and legislation <> communication and coherence) and a guidance on how to implement this.

The EWG considers that the status of the elasmobranchs in the Mediterranean Sea is of particular concern. Consequently any POA could usefully be undertaken as part of a regional management plan including regional fisheries organisations i.e. GFCM. This would offer management and conservation opportunities for shared stocks, migratory

species and species of highest conservation concern. The EWG therefore proposes that a RPOA-Shark is developed for the Mediterranean and Black Seas.

Considering action 1.1.9 (Request through the FAO and Regional Fisheries Management Organisations where appropriate that these organisations develop and implement Regional Shark Plans) and the 2009 Impact Assessment (Table 3 p 14) the EWG further proposes that work is continued with relevant bodies to which EU MS are Party (including ICCAT, NEAFC and CECAF) to support regional cooperation under the IPOA-Sharks model.

8.5 Impact of EU fisheries

EWG 19-17 was asked to consider the impacts that EU fisheries have had on elasmobranch stocks worldwide, particularly in relation to the CPOA. The EWG considered four aspects:

- the role of the EU fleets in relation to elasmobranch fisheries, based on the FAO FishStat database;
- progress in fisheries management prior to and following the CPOA according to verifiable indicators identified in the European Community Plan of Action for the Conservation and Management of Sharks Impact Assessment (CEC, 2009);
- evidence for recovery of depleted species;
- o evidence of international and regional cooperation

In relation to the four aspects identified by the EWG the following progress has been made:

- EU fisheries continue to represent a major proportion of reported international landings. Three MS (Spain, Portugal and France) are among the world's 20 largest fishing nations reporting landings of elasmobranchs to FAO during the period 2008–2017.
- The EWG considers that in the past 10 years progress in management and conservation of sharks has been made as measured against the potential "objectively verifiable indicators" defined in the the European Community Plan of Action for the Conservation and Management of Sharks Impact Assessment (CEC, 2009).
- There has been an increase in reporting of species to species level and evidence of recovery of depleted species such as the common skate complex in the North Sea.
- International and regional cooperation has intensified as can be seen by the increased cooperation between the EU and RFMOs, the uptake of management and conservation measures by regional conventions such as OSPAR and the Barcelona Convention, and the increase in numbers of species listed on CITES, CMS and the MoU sharks which have been supported by the EU.

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10 CONTACT DETAILS OF EWG-19-17 PARTICIPANTS

¹ - Information on EWG participant's affiliations is displayed for information only. In any case, Members of the STECF, invited experts, and JRC experts shall act independently. In the context of the STECF work, the committee members and other experts do not represent the institutions/bodies they are affiliated to in their daily jobs. STECF members and experts also declare at each meeting of the STECF and of its Expert Working Groups any specific interest which might be considered prejudicial to their independence in relation to specific items on the agenda. These declarations are displayed on the public meeting's website if experts explicitly authorized the JRC to do so in accordance with EU legislation on the protection of personnel data. For more information: http://stecf.jrc.ec.europa.eu/adm-declarations

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11 LIST OF ANNEXES

Electronic annexes are published on the meeting's web site on:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1917

List of electronic annexes documents:

ANNEXES

Annex 1 Overview of finning regulations for RFMOs, RFBs and relevant conventions

Annex 2 Template for reporting on the Finning Regulation

Annex 3 Overview of data sets ACDR, FAO and DCF

Annex 4 Supra-regional analysis

Annex 5 Spreadsheet with actions from CPOA

Annex 6 List of elasmobranch species on the EU prohibited species list

Annex 7 RFMO measures for CITES species

12 LIST OF BACKGROUND DOCUMENTS

Background documents are published on the meeting's web site on:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1917

List of background documents:

EWG-19-17 - Doc 1 - Declarations of invited and JRC experts (see also section 10 of this report - List of participants)

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