Commission for the Conservation of Southern Bluefin Tuna



みなみまぐろ保存委員会

CCSBT-ERS/1905/06

Shark Species of Relevance to the CCSBT

Introduction

ERSWG 12 agreed that Members would provide catch details of the twelve shark species that CMS-Sharks¹ considered "CCSBT relevant" (see <u>CCSBT-ERS/1703/Info15</u>). This paper summarises the information provided by Members and <u>ERSWG Data Exchange</u> (EDE) data.

Information Provided

Members provided the information in a variety of ways, from a simple table indicating presence or absence by species and year to the actual quantity (number and/or weight) involved. The information provided is summarised below in Table 1. The information Members provided for this table originated from commercial data, observer data, both, or the data source was not specified.

			Presence /	Statistical				
Member	Numbers	Weight	Absence	Area	2015	2016	2017	2018
Australia	\checkmark	×	✓	\checkmark	\checkmark	\checkmark	✓	×
Indonesia	\checkmark	\checkmark	✓	\checkmark	✓	\checkmark	\checkmark	✓
Japan	\checkmark	×	✓	\checkmark	✓	\checkmark	×	×
Korea	×	×	\checkmark	×	\checkmark	\checkmark	\checkmark	×
New Zealand	×	\checkmark	\checkmark	×	✓	\checkmark	\checkmark	×
South Africa	\checkmark	\checkmark	✓	\checkmark	✓	\checkmark	\checkmark	✓
Taiwan	×	×	\checkmark	×	\checkmark	\checkmark	\checkmark	×

Table 1 – Summary of information provided by Members

The results are summarised in Table 2 (using data for 2015-2017 only), which shows the number of Members that reported encounters with each species for a given year for the species identified as relevant in <u>CCSBT-ERS/1703/Info15</u>. From the data provided it seems that all but two of the species considered as being "CCSBT relevant" by CMS-Sharks are encountered in the CCSBT fishery, the species not encountered being basking shark and whale shark.

¹ Convention on the Conservation of Migratory Species of Wild Animals and the Memorandum of Understanding on the Conservation of Migratory Sharks.

Species Name	Scientific Name	2015	2016	2017
Shortfin Mako	Isurus oxyrinchus	7	7	6
Porbeagle	Lamna nasus	5	5	4
Thresher shark	Alopias vulpinus	3	4	2
Longfin Mako	Isurus paucus	3	3	2
Bigeye Thresher	Alopias superciliosus	3	2	2
Silky Shark	Carcharhinus falciformis	2	1	2
Giant Manta Ray	Manta birostris	1	1	2
Great white shark	Carcharodon carcharias	1	1	1
Pelagic thresher	Alopias pelagicus	1	1	1
Scalloped Hammerhead	Sphyrna lewini	1	-	1
Basking Shark	Cetorhinus maximus	-	-	-
Whale shark	Rhincodon typus	-	-	-

Table 2 – Species presence summary, the numbers represent how many Members (of 7) reported encounters with each species for a given year. The table is ordered by the number of Members encountering the species, from most to least.

In addition to these data, the Secretariat examined EDE data provided by Members for 2015 to 2017. This is not a complete dataset since not all Members provide species-level data to the EDE². Nevertheless, the data that were available have been combined with the data provided by Members for this paper and are presented in Table 3, which gives a summary of the average number of captures by year for the two datasets. As mentioned, neither dataset is complete nor fully comparable and there are some incompatibilities³ in the numbers, but they do give some indication of which species are more frequently caught.

		Average Number per Year	
Species Name	Scientific Name	ERSWG 12 Request	EDE
Porbeagle	Lamna nasus	845	2302
Shortfin Mako	Isurus oxyrinchus	1880	920
Longfin Mako	Isurus paucus	1	156
Thresher shark	Alopias vulpinus	21	38
Silky Shark	Carcharhinus falciformis	-	18
Bigeye Thresher	Alopias superciliosus	2	4
Great white shark	Carcharodon carcharias	-	4
Giant Manta Ray	Manta birostris	3	-
Pelagic thresher	Alopias pelagicus	-	2
Scalloped Hammerhead	Sphyrna lewini	-	1
Basking Shark	Cetorhinus maximus	-	-
Whale shark	Rhincodon typus	-	-

Table 3 – Summary of the average number of individuals by year for the data provided in response the request by ERSWG 12 and the EDE^3 . The table is sorted by overall average number per year, from highest to smallest.

Table 4 presents a summary of the average number of observed individuals captured by year from EDE data, for shark and ray species not identified as CCSBT-relevant by CMS-Sharks. Note that some of the rows are for a species group rather than an individual species. Some of the species in this table are being caught in sufficient numbers to be considered as CCSBT relevant.

 $^{^{2}}$ the EDE only requires three sharks to be reported at species level (porbeagle, short-fin mako, and blue shark) and allows all other sharks to be grouped as "Other sharks".

³ The EDE refers to the number of observed captures per year, whereas for the ERSWG12 request some figures are observed captures and some figures seem to be from commercial catch data.

		Average Number per Year
Species Name	Scientific Name	Average Number per Year (EDE)
Blue shark	Prionace glauca	21362
Various sharks nei	Selachimorpha(Pleurotremata)	753
Pelagic stingray	Dasyatis violacea	244
Dogfishes nei	Squalus spp	148
Crocodile shark	Pseudocarcharias kamoharai	125
Velvet dogfish	Scymnodon squamulosus	108
Sharks, rays, skates, etc. nei	Elasmobranchii	52
Thresher sharks nei	Alopias spp	14
Tope shark	Galeorhinus galeus	14
Copper shark	Carcharhinus brachyurus	6
Mackerel sharks, porbeagles nei	Lamnidae	4
Ground sharks	Carcharhiniformes	4
Oceanic whitetip shark	Carcharhinus longimanus	4
Dusky shark	Carcharhinus obscurus	3
Tiger shark	Galeocerdo cuvier	3
Flapnose houndshark	Scylliogaleus quecketti	3
Broadnose sevengill shark	Notorynchus cepedianus	2
Cookie cutter shark	Isistius brasiliensis	2
Spinner shark	Carcharhinus brevipinna	1
Blacktip shark	Carcharhinus limbatus	<1
Prickly shark	Echinorhinus cookei	<1
Smooth hammerhead	Sphyrna zygaena	<1

Table 4 – Summary of the average number of observed individuals captured by year from EDE data, for shark and ray species not identified as CCSBT-relevant by CMS-Sharks. The table is sorted by overall average number observed captured per year, from highest to smallest.

Summary

- All but 2 of the 12 species considered CCSBT relevant by CMS-Sharks are present in the SBT fishery. Some of these species are caught in substantial numbers, while other species are caught infrequently. Nevertheless, all of these species are listed in either CMS Appendix I or CMS Appendix II, so small catches are potentially important. It might therefore be appropriate to consider the top ten species in Tables 2 and 3 as being CCSBT relevant.
- None of the species in Table 4 are listed in either CMS Appendix I or CMS Appendix II, so catches of these species do not have the same conservation implications as the species in Tables 2 and 3. Nevertheless, blue shark is clearly an important bycatch, so it and possibly some other frequently caught species in Table 4 should be considered as being CCSBT relevant.

The Secretariat recommends that Members give consideration to which species should be considered as being "CCSBT relevant" and the degree of monitoring that "CCSBT relevant" species be subjected to. An initial suggestion is that the <u>ERSWG Data Exchange</u> be modified to require species specific reporting for all "CCSBT relevant" species and that the Secretariat include a summary of the observed and estimated total mortality of these species in its regular paper to the ERSWG.

Prepared by the Secretariat