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-Sharks[1] considered "CCSBT relevant" (see CCSBT-ERS/1703/Info15). This paper summarises the information provided by Members and ERSWG Data Exchange (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.

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

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 CCSBT-ERS/1703/Info15. 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 EDE[2]. 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 incompatibilities[3] 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 ERSWG Data Exchange 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