

## UPDATED SPECIES LIST FOR SHARKS CAUGHT IN ICCAT FISHERIES

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### SUMMARY

*This document presents a brief discussion of the increasing list of species being reported to the ICCAT secretariat, together with a proposal for complete taxonomic classification aimed to be revised and approved by the Sharks Working Group.*

### RÉSUMÉ

*Ce document présente une brève discussion sur la liste croissante des espèces qui sont déclarées au Secrétariat de l'ICCAT, conjointement avec une proposition visant à ce que le Groupe d'espèces sur les requins révisé et approuve une classification taxonomique complète.*

### RESUMEN

*Este documento presenta un breve debate sobre la lista cada vez mayor de especies que se comunican a la Secretaría de ICCAT, junto con una propuesta para completar la clasificación taxonómica con miras a su revisión y aprobación por el Grupo de especies sobre tiburones.*

### KEYWORDS

*Sharks, Rays, Taxonomy*

### Overview of ICCAT species

According to the ICCAT website (<http://www.iccat.int/en/introduction.htm>), about 30 species are of direct concern to ICCAT: Atlantic bluefin (*Thunnus thynnus thynnus*), skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*), albacore (*Thunnus alalunga*) and bigeye tuna (*Thunnus obesus*); swordfish (*Xiphias gladius*); billfishes such as white marlin (*Tetrapturus albidus*), blue marlin (*Makaira nigricans*), sailfish (*Istiophorus albicans*) and spearfish (*Tetrapturus pfluegeri*); mackerels such as spotted Spanish mackerel (*Scomberomorus maculatus*) and king mackerel (*Scomberomorus cavalla*); and, small tunas like black skipjack (*Euthynnus alletteratus*), frigate tuna (*Auxis thazard*), and Atlantic bonito (*Sarda sarda*). Through the Convention, it is established that ICCAT is the only fisheries organization that can undertake the range of work required for the study and management of tunas and tuna-like fishes in the Atlantic Ocean and adjacent seas. Such studies include research on biometry, ecology, and oceanography, with a principal focus on the effects of fishing on stock abundance. The Commission's work requires the collection and analysis of statistical information relative to current conditions and trends of the fishery resources in the Convention area. The Commission also undertakes work in the compilation of data for other fish species that are caught during tuna fishing activities ("bycatch", principally sharks) in the Convention area, and which are not investigated and globally managed by another international fishery organization.

This last requirement has resulted in a greatly expanded list of species that are reported to the ICCAT Secretariat on an annual basis. Several recent ICCAT recommendations and resolutions, particularly related to these by-caught species have resulted in a need to revise the list of species that were previously used by ICCAT. The ICCAT species list revision work started several years ago (APPENDIX 5\_1: ICCAT manual, <http://www.iccat.int/en/ICCATManual.asp?mId=3>). Under this revision, a large amount of FAO species codes (mainly sharks, seabirds and sea turtles) were requested to FAO and a provisional list was created. However, this

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provisional expanded list still needs to be revisited, as the increased data requirements and scrutiny have shown that there are several inconsistencies that need to be addressed. Taxonomic revisions have occurred since the inception of the ICCAT species list and this need to be addressed. In addition, the taxonomic groups covered by the FAO ASFIS system could be insufficient nowadays for the needs of ICCAT.

The aim of this document is to provide a revised taxonomic guideline and species list, proposed by the secretariat for use in ICCAT databases. It is hoped that the Shark species working group can approve the list for official use.

### **The proposed update to the shark's species list**

As mentioned previously several inconsistencies exist in the current list of ICCAT species. In the past ICCAT has included codes for various taxonomic levels, several of which are of little use for data reporting due to their generic level (eg. DGH for *Squalidae*, *Scyliorhinidae*). Where possible, codes have been revised to ensure more detailed information is submitted. For the example of DHG, codes have been provided for individual families (DGX, SYX) which provide an increased level of information which is necessary for responsible species management. In addition, several past codes have been changed to reflect revised taxonomic information (**Table 1**).

In summary, the following actions were taken on the species list:

- Completed the Taxonomy (using the ITIS database - <http://www.itis.gov>).
- Added a species field (TaxonGroup) that allow an easy identification of Species codes that are in reality other things: genus, order, family, suborder, etc.
- Deleted duplicated codes

For sharks, this has resulted in 132 codes being made available, of which 109 are for species level, 12 for genus, 9 for family and 2 for Order (**Table 2**). The full list of codes and species are provided in **Appendix 1**.

### **Summary**

As this document clearly indicates, there are many species in the Class *Chondrichthyes* alone for which ICCAT collects data. It is thus fundamental to ensure that the taxonomy ICCAT uses is correct and that the codes provided for data submission represent the best groupings possible to ensure the species impacted can be clearly defined and managed responsibly. It is thus the intention of the secretariat of ICCAT to provide the list of species and associated codes to experts at the Shark species group meeting in order to obtain feedback on the proposed revisions. In particular views on the necessity for some of the more aggregated levels (e.g. Order level codes) and comments on the taxonomic revisions.

**Table 1.** Revisions to scientific names based on information from the IT IS database.

Species Code	Scientific name	English name	Family	Previous scientific name
PLS	<i>Pteroplatytrygon violacea</i>	Pelagic stingray	<i>Dasyatidae</i>	<i>Dasyatis violacea</i>
RJF	<i>Leucoraja fullonica</i>	Shagreen ray	<i>Rajidae</i>	<i>Raja fullonica</i>
SSQ	<i>Zameus squamulosus</i>	Velvet dogfish	<i>Squalidae</i>	<i>Scymnodon squamulosus</i>
MYM	<i>Myliobatis freminvillei</i>	Bullnose eagle ray	<i>Myliobatidae</i>	<i>Myliobatis freminvillii</i>
RPM	<i>Pristis perotteti</i>	Largetooth sawfish	<i>Pristidae</i>	<i>Pristis microdon</i>

**Table 2.** Summary of number of codes per taxonomic group for sharks species. Lines in yellow indicate a code is available for Order which is a higher level of aggregation than family.

Order	Family	Species	Genus	Family	Order	tot
<i>Carcharhiniformes</i>	<i>Carcharhinidae</i>	1				1
<i>Lamniformes</i>	<i>Lamnidae</i>	2				2
<i>Carcharhiniformes</i>	<i>Carcharhinidae</i>	20	1	1		22
	<i>Hemigaleidae</i>	1				1
	<i>Pseudotriakidae</i>	1				1
	<i>Scyliorhinidae</i>	4	3	1		8
	<i>Sphyrnidae</i>	4	1	1		6
	<i>Triakidae</i>	6	1	1		8
	(blank)				1	1
<i>Hexanchiformes</i>	<i>Chlamydoselachidae</i>	1				1
	<i>Hexanchidae</i>	2				2
	<i>Notorynchidae</i>	1				1
<i>Lamniformes</i>	<i>Alopiidae</i>	2	1			3
	<i>Cetorhinidae</i>	1				1
	<i>Lamnidae</i>	2	1	1		4
	<i>Megachasmidae</i>	1				1
	<i>Odontaspidae</i>	3				3
	<i>Pseudocarchariidae</i>	1				1
<i>Myliobatiformes</i>	<i>Dasyatidae</i>	5		1		6
	<i>Gymnuridae</i>	2	1			3
	<i>Mobulidae</i>	7		1		8
	<i>Myliobatidae</i>	5				5
	<i>Rhinopteridae</i>	2				2
<i>Orectolobiformes</i>	<i>Ginglymostomatidae</i>	1				1
	<i>Rhincodontidae</i>	1				1
<i>Pristiformes</i>	<i>Pristidae</i>	2				2
<i>Rajiformes</i>	<i>Rajidae</i>	2				2
<i>Squaliformes</i>	<i>Centrophoridae</i>	5	1			6
	<i>Dalatiidae</i>	3				3
	<i>Echinorhinidae</i>	1				1
	<i>Etmopteridae</i>	4	1			5
	<i>Oxynotidae</i>	2				2
	<i>Somniosidae</i>	6				6
	<i>Squalidae</i>	4	1	1		6
	(blank)				1	1
<i>Squatiniiformes</i>	<i>Squatinae</i>	3		1		4
<i>Torpediniiformes</i>	<i>Torpedinidae</i>	1				1
		<b>109</b>	<b>12</b>	<b>9</b>	<b>2</b>	<b>132</b>

**LIST OF SHARK SPECIES AND CODES**  
**(RED TEXT INDICATES SPECIES CONSIDERED DURING THE 2012 SHARK ERA)**

Species Code	SciName	CoNameEN	Author	IccSpeGrp ID	TaxonType	GenusTx	Sub family	FamilyTx	Super family	OrderTx	Superorder	Infraclass	Subclass	ClassTx	Subphylum	Phylum	ICCAT list Status
HXT	<i>Hepranchius perlo</i>	Sharpnose sevengill shark	Bonnaterre 1788	2SH9	1-Species	Hepranchius		Hexanchidae		Hexanchiformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
SBL	<i>Hexanchus griseus</i>	Bluntnose sixgill shark	Bonnaterre 1788	2SH9	1-Species	Hexanchus		Hexanchidae		Hexanchiformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
NTC	<i>Notorynchus cepedianus</i>	Broadnose sevengill shark	Péron 1807	2SH9	1-Species	Notorynchus		Notorynchiidae		Notorynchiiformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
BSK	<i>Cetorhinus maximus</i>	Basking shark	Günnerus 1765	2SH9	1-Species	Cetorhinus		Cetorhinidae		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCT	<i>Carcharias taurus</i>	Sand tiger shark	Rafinesque 1810	2SH9	1-Species	Carcharias		Odontaspidae		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
ALV	<i>Alopias vulpinus</i>	Thresher	Bonnaterre 1788	2SH9	1-Species	<b>Alopias</b>		<b>Alopiidae</b>		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
BTH	<i>Alopias superciliosus</i>	Bigeye thresher	Lowe 1841	2SH9	1-Species	<b>Alopias</b>		<b>Alopiidae</b>		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
THR	<i>Alopias spp.</i>	Thresher sharks nei		2SH9	2-Genus	<b>Alopias</b>		<b>Alopiidae</b>		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SMA	<i>Isurus paucus</i>	Shortfin mako	Rafinesque 1810	2SH1	1-Species	<b>Isurus</b>		<b>Lamnidae</b>		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
LMA	<i>Isurus paucus</i>	Longfin mako	Guitart-Manday 1966	2SH9	1-Species	<b>Isurus</b>		<b>Lamnidae</b>		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
MAK	<i>Isurus spp.</i>	Mako sharks		2SH9	2-Genus	<b>Isurus</b>		<b>Lamnidae</b>		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
POR	<i>Lamna nasus</i>	Porbeagle	Bonnaterre 1788	2SH1	1-Species	<b>Lamna</b>		<b>Lamnidae</b>		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
WSH	<i>Carcharodon carcharias</i>	Great white shark	Linnaeus 1758	2SH9	1-Species	<b>Carcharodon</b>		<b>Lamnidae</b>		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
MSK	<i>Lamnidae</i>	Mackerel sharks, porbeagles nei		2SH9	4-Family			<b>Lamnidae</b>		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
GNC	<i>Ginglymostoma cirratum</i>	Nurse shark	Bonnaterre 1788	2SH9	1-Species	Ginglymostoma		Ginglymostomatidae		Orctotobiformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
RHN	<i>Rhincodon typus</i>	Whale shark	Smith 1828	2SH9	1-Species	Rhincodon		Rhincodontidae		Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES	
SHO	<i>Galeus melastomus</i>	Blackmouth catshark	Rafinesque 1810	2SH9	1-Species	Galeus		Scyliorhinidae		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
GAU	<i>Galeus spp.</i>	Crest-tail catsharks nei		2SH9	2-Genus	Galeus		Scyliorhinidae		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SYC	<i>Scyliorhinus canicula</i>	Small-spotted catshark	Linnaeus 1758	2SH9	1-Species	Scyliorhinus		Scyliorhinidae		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SYT	<i>Scyliorhinus stellatus</i>	Nursehound	Linnaeus 1758	2SH9	1-Species	Scyliorhinus		Scyliorhinidae		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SCL	<i>Scyliorhinus spp.</i>	Catsharks, nursehounds nei		2SH9	2-Genus	Scyliorhinus		Scyliorhinidae		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
API	<i>Apristurus spp.</i>	Deep-water catsharks nei		2SH9	2-Genus	Apristurus		Scyliorhinidae		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SYX	<i>Scyliorhinidae</i>	Catsharks, etc. nei		2SH9	4-Family			Scyliorhinidae		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
BSH	<i>Prionace glauca</i>	Blue shark	Linnaeus 1758	2SH1	1-Species	<b>Prionace</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCP	<i>Carcharhinus plumbeus</i>	Sandbar shark	Nardo 1827	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCL	<i>Carcharhinus limbatus</i>	Blacktip shark	Müller & Henle 1839	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCN	<i>Carcharhinus acronotus</i>	Blacknose shark	Poey 1860	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCS	<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	Poey 1861	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCR	<i>Carcharhinus porosus</i>	Smalltail shark	Ranzani 1840	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
DUS	<i>Carcharhinus obscurus</i>	Dusky shark	Lesueur 1818	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
FAL	<i>Carcharhinus falciformis</i>	Silky shark	Müller & Henle 1839	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
BCE	<i>Carcharhinus leucas</i>	Bull shark	Müller & Henle 1839	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
BRO	<i>Carcharhinus brachyurus</i>	Copper shark	Günther 1870	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCB	<i>Carcharhinus brevirostris</i>	Spinner shark	Müller & Henle 1839	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCS	<i>Carcharhinus signatus</i>	Night shark	Poey 1868	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCO	<i>Carcharhinus isodon</i>	Finetooth shark	Valenciennes 1841	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CCA	<i>Carcharhinus altimus</i>	Bignose shark	Springer 1950	2SH9	1-Species	<b>Carcharhinus</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
TIG	<i>Galeocerdo cuvier</i>	Tiger shark	Péron & Lesueur 1822	2SH9	1-Species	<b>Galeocerdo</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
NGB	<i>Negaprion brevirostris</i>	Lemon shark	Poey 1868	2SH9	1-Species	<b>Negaprion</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
RHT	<i>Rhizoprionodon terraenovae</i>	Atlantic sharpnose shark	Richardson 1836	2SH9	1-Species	<b>Rhizoprionodon</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
RHZ	<i>Rhizoprionodon spp.</i>	Sharpnose sharks nei		2SH9	2-Genus	<b>Rhizoprionodon</b>		<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
RSK	<i>Carcharhinidae</i>	Requiem sharks nei		2SH9	4-Family			<b>Carcharhinidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SPZ	<i>Sphyrna zygaena</i>	Smooth hammerhead	Linnaeus 1758	2SH9	1-Species	<b>Sphyrna</b>		<b>Sphyrnidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SPL	<i>Sphyrna lewini</i>	Scalloped hammerhead	Griffith & Smith 1834	2SH9	1-Species	<b>Sphyrna</b>		<b>Sphyrnidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SPJ	<i>Sphyrna tiburo</i>	Bonnethead	Linnaeus 1758	2SH9	1-Species	<b>Sphyrna</b>		<b>Sphyrnidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SPK	<i>Sphyrna mokarran</i>	Great hammerhead	Ruppell 1837	2SH9	1-Species	<b>Sphyrna</b>		<b>Sphyrnidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SPN	<i>Sphyrna spp.</i>	Hammerhead sharks nei		2SH9	2-Genus	<b>Sphyrna</b>		<b>Sphyrnidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SPY	<i>Sphyrnidae</i>	Hammerhead sharks, etc. nei		2SH9	4-Family			<b>Sphyrnidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SDD	<i>Mustelus schmitti</i>	Narrownose smooth-hound	Springer 1939	2SH9	1-Species	<b>Mustelus</b>		<b>Triakidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SMD	<i>Mustelus mustelus</i>	Smooth-hound	Linnaeus 1758	2SH9	1-Species	<b>Mustelus</b>		<b>Triakidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SDS	<i>Mustelus asterias</i>	Starry smooth-hound	Cloquet 1821	2SH9	1-Species	<b>Mustelus</b>		<b>Triakidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SDV	<i>Mustelus spp.</i>	Smooth-hounds nei		2SH9	2-Genus	<b>Mustelus</b>		<b>Triakidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
GAG	<i>Galeorhinus galeus</i>	Tope shark	Linnaeus 1758	2SH9	1-Species	<b>Galeorhinus</b>		<b>Triakidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
TRK	<i>Triakidae</i>	Houndsharks, smoothhounds nei		2SH9	4-Family			<b>Triakidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
PTM	<i>Pseudotriakis microdon</i>	False catshark	Capello 1868	2SH9	1-Species	<b>Pseudotriakis</b>		<b>Pseudotriakidae</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CVX	<i>Carcharhiniformes</i>	Ground sharks nei		2SH9	6-Order			<b>Carcharhiniformes</b>		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
GSK	<i>Somniosus microcephalus</i>	Greenland shark	Bloch & Schneider 1801	2SH9	1-Species	<b>Somniosus</b>		<b>Somniosidae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
SOR	<i>Somniosus rostratus</i>	Little sleeper shark	Risso 1827	2SH9	1-Species	<b>Somniosus</b>		<b>Somniosidae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
DGS	<i>Squalus acanthias</i>	Picked dogfish	Linnaeus 1758	2SH9	1-Species	<b>Squalus</b>		<b>Squalidae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
DOP	<i>Squalus megalops</i>	Shortnose spurdog	Macleay 1881	2SH9	1-Species	<b>Squalus</b>		<b>Squalidae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
DGZ	<i>Squalus spp.</i>	Dogfishes nei		2SH9	2-Genus	<b>Squalus</b>		<b>Squalidae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
GUP	<i>Centrophorus granulosus</i>	Gulper shark	Bloch & Schneider 1801	2SH9	1-Species	<b>Centrophorus</b>		<b>Centrophoridae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CPU	<i>Centrophorus uyato</i>	Little gulper shark	Rafinesque 1810	2SH9	1-Species	<b>Centrophorus</b>		<b>Centrophoridae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
GUQ	<i>Centrophorus squamosus</i>	Leafscale gulper shark	Bonnaterre 1788	2SH9	1-Species	<b>Centrophorus</b>		<b>Centrophoridae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
CLP	<i>Centrophorus lusitanicus</i>	Lowfin gulper shark	Bocage & Capello 1864	2SH9	1-Species	<b>Centrophorus</b>		<b>Centrophoridae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
ETX	<i>Etmopterus spinax</i>	Velvet belly	Linnaeus 1758	2SH9	1-Species	<b>Etmopterus</b>		<b>Etmopteridae</b>		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	YES
ETR	<i>Etmopterus princeps</i>	Great lanternshark	Collett 1904	2SH9	1-Species	<b>Etmopterus</b>		<b>Etmopteridae</b>		Squaliformes	Selachim						

MPO	<i>Pteromylaeus bovinus</i>	Bull ray	Geoffroy St. Hilaire 1817	2SH9	1-Species	Pteromylaeus		Myliobatidae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
MRB	<i>Rhinoptera bonasus</i>	Cownose ray	Mitchill 1815	2SH9	1-Species	Rhinoptera		Rhinopteridae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
MTR	<i>Mustelus noronhai</i>	Narrowfin smooth-hound	Springer 1939	2SH0	1-Species	Mustelus		Triakidae		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
MYL	<i>Myliobatis aquila</i>	Common eagle ray	Linnaeus 1758	2SH9	1-Species	Myliobatis		Myliobatidae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
ODH	<i>Odontaspis noronhai</i>	Bigeye sand tiger shark	Maul 1955	2SH9	1-Species	Odontaspis		Odontaspidae		Lamniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
PLS	<i>Pteroplatytrygon violacea</i>	Pelagic stingray	Bonaparte 1852	2SH9	1-Species	Pteroplatytrygon		Dasyatidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
QUB	<i>Squalus blainvillae</i>	Longnose spurdog	Risso 1827	2SH9	1-Species	Squalus		Squalidae		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
QUC	<i>Squalus cubensis</i>	Cuban dogfish	Howell Rivero 1936	2SH9	1-Species	Squalus		Squalidae		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
QUL	<i>Squaliolus laticaudus</i>	Spined pygmy shark	Smith & Radcliffe 1912	2SH9	1-Species	Squaliolus		Dalatiidae		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RDA	<i>Dasyatis americana</i>	Southern stingray	Hildebrand & Schroeder 1928	2SH9	1-Species	Dasyatis		Dasyatidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RDC	<i>Dasyatis centroura</i>	Roughtail stingray	Mitchill 1815	2SH9	1-Species	Dasyatis		Dasyatidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RFL	<i>Raja straeleni</i>	Spotted skate	Poll 1951	2SH9	1-Species	Raja		Rajidae		Rajiformes		Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RHR	<i>Rhizoprionodon porosus</i>	Caribbean sharpnose shark	Poey 1861	2SH9	1-Species	Rhizoprionodon		Carcharhinidae		Carcharhiniformes	Galeomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RJF	<i>Leucoraja fallonica</i>	Shagreen ray	Linnaeus 1758	2SH9	1-Species	Leucoraja		Rajidae		Rajiformes		Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RMB	<i>Manta birostris</i>	Giant manta	Walbaum 1792	2SH9	1-Species	Manta		Mobulidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RMH	<i>Mobula hypostoma</i>	Lesser devil ray	Bancroft 1831	2SH9	1-Species	Mobula		Mobulidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RMJ	<i>Mobula japonica</i>	Spinetail mobula	Müller & Henle 1841	2SH9	1-Species	Mobula		Mobulidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RMM	<i>Mobula mobular</i>	Devil fish	Bonnaterre 1788	2SH9	1-Species	Mobula		Mobulidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RMO	<i>Mobula thurstoni</i>	Smoothtail mobula	Lloyd 1908	2SH9	1-Species	Mobula		Mobulidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RMT	<i>Mobula tarapacana</i>	Chilean devil ray	Philippi 1893	2SH9	1-Species	Mobula		Mobulidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RSQ	<i>Zameus squamulosus</i>	Velvet dogfish	Günther 1877	2SH9	1-Species	Zameus		Somniosidae		Squaliformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
STT	<i>Dasyatidae</i>	Stingrays, butterfly rays nei		2SH9	4-Family			Dasyatidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
SUA	<i>Squatina oculata</i>	Sawback angelshark	Cuvier 1829	2SH9	1-Species	Squatina		Squatinae		Squatiformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
SUT	<i>Squatina oculata</i>	Smoothback angelshark	Bonaparte 1840	2SH9	1-Species	Squatina		Squatinae		Squatiformes	Selachimorpha	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
TTO	<i>Torpedo nobiliana</i>	Electric ray	Bonaparte 1835	2SH0	1-Species	Torpedo		Torpedinidae		Torpediniformes		Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
MAE	<i>Aetobatus narinari</i>	spotted eagle ray	Euphrasen 1790	2SH9	1-Species	Aetobatus		Myliobatidae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
JDY	<i>Dasyatis say</i>	bluntnose stingray	Lesueur 1817	2SH9	1-Species	Dasyatis		Dasyatidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RBV	<i>Gymnura spp</i>	Butterfly rays nei		2SH9	2-Genus	Gymnura		Gymnuridae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RGL	<i>Gymnura altavela</i>	spiny butterfly ray	Linnaeus 1758	2SH9	1-Species	Gymnura		Gymnuridae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RGI	<i>Gymnura micrura</i>	smooth butterfly ray	Bloch & Schneider 1801	2SH9	1-Species	Gymnura		Gymnuridae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RMN	<i>Mobula rochebrunei</i>	Lesser Guinean devil ray	Vaillant 1879	2SH9	1-Species	Mobula		Mobulidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
MYM	<i>Myliobatis freminvillei</i>	Bullnose eagle ray	Lesueur 1824	2SH9	1-Species	Myliobatis		Myliobatidae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
MYO	<i>Myliobatis goodei</i>	southern eagle ray	Garman 1885	2SH9	1-Species	Myliobatis		Myliobatidae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RPP	<i>Pristis pectinata</i>	smalltooth sawfish	Latham 1794	2SH9	1-Species	Pristis		Pristidae		Pristiformes		Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RPM	<i>Pristis perotteti</i>	Largetooth sawfish	Latham 1794	2SH9	1-Species	Pristis		Pristidae		Pristiformes		Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
MRM	<i>Rhinoptera marginata</i>	Lusitanian cownose ray	Geoffroy St. Hilaire 1817	2SH9	1-Species	Rhinoptera		Rhinopteridae	Myliobatoidea	Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new
RTB	<i>Taeniura grabata</i>	round stingray	Geoffroy St. Hilaire 1817	2SH9	1-Species	Taeniura		Dasyatidae		Myliobatiformes	Rajomorphii	Euselachii	Elasmobranchii	Chondrichthyes	Vertebrata	Chordata	new