

Development of a draft list of ray species under the purview of the IATTC

Document SAC-16-08



Ecological sustainability

- IATTC mandated to ensure ecologically sustainability of its fisheries
 - Antigua Convention, specific IATTC Resolutions (e.g., sharks, rays, turtles, dolphins)

To ensure the "long-term conservation and sustainable use of the stocks of tunas and tuna-like species <u>and other associated species of fish</u> taken by vessels fishing for tunas and tuna-like species in the eastern Pacific Ocean (EPO)"



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Article VII. "...adopt, as necessary, conservation and management measures and recommendations for species belonging to the same ecosystem and that are affected by fishing for, or dependent on or associated with, the fish stocks covered by this Convention, with a view to maintaining or restoring populations of such species above levels at which their reproduction may become seriously threatened"



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• Difficult, given the IATTC has not adopted a prescriptive list of ray species, but a list of sharks was adopted by the Commission in 2024.

Resolution C-23-07 on Sharks

 Resolution C-23-07 - Conservation Measures for the Protection and Sustainable Management of Sharks

13. "In 2024, the IATTC scientific staff, in consultation with the IATTC SAC and EBWG, shall develop a draft list of shark species under the purview of the Commission in the Convention Area for its consideration"



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 18 shark species adopted in 2024 in Resolution C-24-05

Annex 4								
	List of priority species for research and management							
Familia	Nombre científico	Common name	Nombre común					
Alopiidae	Alopias pelagicus	Pelagic thresher	Zorro pelágico					
Alopiidae	Alopias superciliosus	Bigeye thresher	Zorro ojón					
Alopiidae	Alopias vulpinus	Common thresher	Tiburón zorro pinto					
Carcharhinidae	Carcharhinus brachyurus	Copper shark	Tiburón cobrizo					
Carcharhinidae	Carcharhinus falciformis	Silky shark	Tiburón sedoso					
Carcharhinidae	Carcharhinus galapagensis	Galapagos shark	Tiburón de Galápagos					
Carcharhinidae	Carcharhinus longimanus	Oceanic whitetip shark	Tiburón punta blanc oceánico					
Galeocerdonidae	Galeocerdo cuvier	Tiger shark	Tintorera tigre					
Lamnidae	Isurus oxyrinchus	Shortfin mako shark	Mako de aleta corta					
Lamnidae	Isurus paucus	Longfin mako shark	Marrajo carite					
Lamnidae	Lamna ditropis	Salmon shark	Marrajo salmón					
Lamnidae	Lamna nasus	Porbeagle shark	Marrajo sardinero					
Carcharhinidae	Prionace glauca	Blue shark	Tiburón azul					
Pseudocarchariidae	Pseudocarcharias kamoharai	Crocodile shark	Tiburón cocodrilo					
Rhincodontidae	Rhincodon typus	Whale shark	Tiburón ballena					
Sphyrnidae	Sphyrna lewini	Scalloped hammerhead shark	Cornuda común					
Sphyrnidae	Sphyrna mokarran	Great hammerhead	Cornuda gigante					
Sphyrnidae	Sphyrna zygaena	Smooth hammerhead shark	Cornuda cruz					

SAC Recommendation for Rays

• In 2024, the SAC made a similar recommendation for rays:

6.1(b) "Recommends that the IATTC staff develop a draft list of ray and mobulid species under the purview of the IATTC for consideration by the EBWG and the SAC."



Ray interaction data

- Similar to the process to develop the list of shark species
- IATTC staff collated data documenting interactions with ray species for the following EPO pelagic fisheries:
 - Large-scale longline ('industrial)
 - Purse seine (Class 6) NOA, OBJ, DEL
 - Purse seine (Class 1–5) NOA, OBJ
 - Small-scale coastal multispecies longline/gillnet







Ray interaction data

• 17 species identified to interact with IATTC fisheries

TABLE 2. Number of sets where at least one individual ray was recorded for each species in IATTC data sources for each of the seven pelagic fisheries in the eastern Pacific Ocean. Abbreviations are purse seine (PS), Class 6 (C6), Classes 1-5 (C1-5), dolphin sets (DEL), non-associated sets (NOA) and sets on floating objects (OBJ). Species are listed in decreasing total number of observations.

Species	Common name	Industrial Iongline	PS-C6 (DEL)	PS-C6 (NOA)	PS-C6 (OBJ)	PS-C1-5 (NOA)	PS-C1-5 (OBJ)	Small scale coastal	Total
Pteroplatytrygon violacea	Pelagic stingray	14430	2064	1072	1816	8	14	299	19703
Mobula mobular	Spinetail manta	129	661	580	177	2		6	1555
Mobula thurstoni	Smoothtail manta	13	589	604	179	8	3	4	1400
Mobula tarapacana	Chilean devil ray		313	201	79	3			596
Mobula birostris	Giant manta	70	97	252	69			7	495
Mobula munkiana	Munk's devil ray		145	135	38			9	327
Pseudobatos leucorhynchus	Whitesnout guitarfish							30	30
Rhinoptera steindachneri	Pacific cownose ray		4	20				4	28
Hypanus longus	Longtail stingray				2			11	13
Aetobatus narinari	Spotted eagle ray							10	10
Dasyatis brevis	Whiptail stingray							7	7
Bathyraja violacea	Okhotsk skate	1							1
Styracura pacifica	Pacific whiptail stingray		1						1
Pseudobatos glaucostigma	Speckled guitarfish	1							1
Mobula alfredi	Alfred manta	1							1
Narcine entemedor	Giant electric ray	1							1
Tetronarce tremens	Chilean torpedo				1				1

Developing a draft list of ray species

- 17 'impacted' species classified by:
 - Ecological traits (horizontal and vertical distribution, endemism)

Family	Species	Geographical distribution	Habitat	Endemio to EPO
Aetobatidae	Aetobatus narinari	Neritic	Benthopelagic	No
Arhynchobatidae	Bathyraja violacea	Neritic	Demersal	No
Dasyatidae	Dasyatis brevis	Neritic	Demersal	Yes
Dasyatidae	Hypanus longus	Neritic	Demersal	Yes
Dasyatidae	Pteroplatytrygon violacea	Oceanic	Pelagic	No
Mobulidae	Mobula alfredi	Neritic/Oceanic	Pelagic	No
Mobulidae	Mobula birostris	Neritic/Oceanic	Pelagic	No
Mobulidae -	Mobula mobular	Oceanic	Pelagic	No
Mobulidae -	Mobula munkiana	Oceanic	Pelagic	Yes
Mobulidae .	Mobula tarapacana	Neritic/Oceanic	Pelagic	No
Mobulidae	Mobula thurstoni	Oceanic	Pelagic	No
Narcinidae	Narcine entemedor	Neritic	Demersal	Yes
Potamotrygonidae	Styracura pacifica	Neritic	Demersal	Yes
Rhinobatidae	Pseudobatos glaucostigma	Neritic	Demersal	Yes
Rhinobatidae	Pseudobatos leucorhynchus	Neritic	Demersal	Yes
Rhinopteridae	Rhinoptera steindachneri	Neritic	Benthopelagic	Yes
Torpedinidae	Tetronarce tremens	Neritic	Demersal	Yes



Developing a draft list of species

- 17 'impacted' species classified by:
 - Ecological traits (horizontal and vertical distribution, endemism)
 - Active IATTC Resolution(s)

Family	Species	Geographical distribution	Habitat	Endemic to EPO	Current IATTC Resolution
Aetobatidae	Aetobatus narinari	Neritic	Benthopelagic	No	No
Arhynchobatidae	Bathyraja violacea	Neritic	Demersal	No	No
Dasyatidae	Dasyatis brevis	Neritic	Demersal	Yes	No
Dasyatidae	Hypanus longus	Neritic	Demersal	Yes	No
Dasyatidae	Pteroplatytrygon violacea	Oceanic	Pelagic	No	No
Mobulidae	Mobula alfredi	Neritic/Oceanic	Pelagic	No	Yes
Mobulidae	Mobula birostris	Neritic/Oceanic	Pelagic	No	Yes
Mobulidae	Mobula mobular	Oceanic	Pelagic	No	Yes
Mobulidae	Mobula munkiana	Oceanic	Pelagic	Yes	Yes
Mobulidae .	Mobula tarapacana	Neritic/Oceanic	Pelagic	No	Yes
Mobulidae	Mobula thurstoni	Oceanic	Pelagic	No	Yes
Narcinidae	Narcine entemedor	Neritic	Demersal	Yes	No
Potamotrygonidae	Styracura pacifica	Neritic	Demersal	Yes	No
Rhinobatidae	Pseudobatos glaucostigma	Neritic	Demersal	Yes	No
Rhinobatidae	Pseudobatos leucorhynchus	Neritic	Demersal	Yes	No
Rhinopteridae	Rhinoptera steindachneri	Neritic	Benthopelagic	Yes	No
Torpedinidae	Tetronarce tremens	Neritic	Demersal	Yes	No



Developing a draft list of species

- 17 'impacted' species classified by:
 - Ecological traits (horizontal and vertical distribution, endemism)
 - Active IATTC Resolution(s)
 - Included in lists for IATTC catch reporting or considered a migratory species (UNCLOS; Annex 1)

Family	Species	Geographical distribution	Habitat	Endemic to EPO	Current IATTC Resolution	UNCLOS Annex I	IATTC Memo	IATTC SAC- 16 INF-O
Aetobatidae	Aetobatus narinari	Neritic	Benthopelagic	No	No	No	No	No
Arhynchobatidae	Bathyraja violacea	Neritic	Demersal	No	No	No	No	No
•								
Dasyatidae	Dasyatis brevis	Neritic	Demersal	Yes	No	No	Yes	Yes
Dasyatidae	Hypanus longus	Neritic	Demersal	Yes	No	No	Yes	Yes
Dasyatidae	Pteroplatytrygon violacea	Oceanic	Pelagic	No	No	No	Yes	Yes
Mobulidae	Mobula alfredi	Neritic/Oceanic	Pelagic	No	Yes	No	Yes	Yes
Mobulidae	Mobula birostris	Neritic/Oceanic	Pelagic	No	Yes	No	Yes	Yes
Mobulidae	Mobula mobular	Oceanic	Pelagic	No	Yes	No	Yes	Yes
Mobulidae	Mobula munkiana	Oceanic	Pelagic	Yes	Yes	No	Yes	Yes
Mobulidae	Mobula tarapacana	Neritic/Oceanic	Pelagic	No	Yes	No	Yes	Yes
Mobulidae	Mobula thurstoni	Oceanic	Pelagic	No	Yes	No	Yes	Yes
Narcinidae	Narcine entemedor	Neritic	Demersal	Yes	No	No	No	No
Potamotrygonidae	Styracura pacifica	Neritic	Demersal	Yes	No	No	No	No
Rhinobatidae	Pseudobatos glaucostigma	Neritic	Demersal	Yes	No	No	No	No
Rhinobatidae	Pseudobatos leucorhynchus	Neritic	Demersal	Yes	No	No	No	No
Rhinopteridae	Rhinoptera steindachneri	Neritic	Benthopelagic	Yes	No	No	No	No
Torpedinidae	Tetronarce tremens	Neritic	Demersal	Yes	No	No	No	No



"List A" (17 Species)

All species interacting with all EPO pelagic fisheries

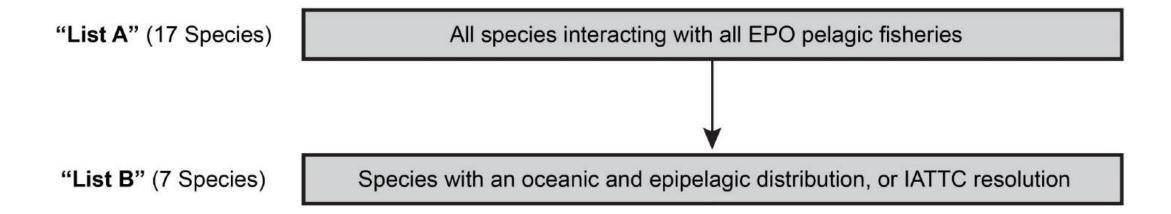


"List A" (17 Species)

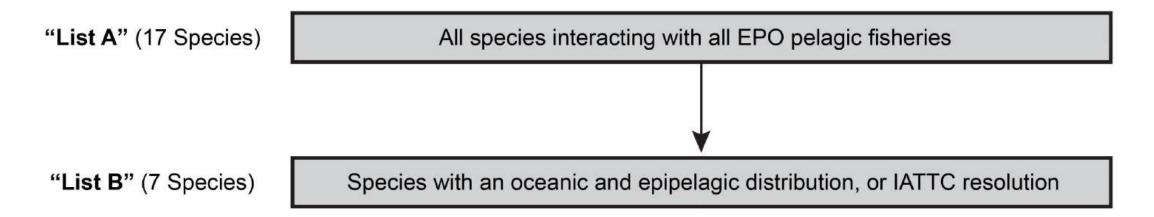
All species interacting with all EPO pelagic fisheries

Includes many neritic and/or demersal species rarely caught by tuna fleets









Excludes species with existing monitoring requirements or possibly considered by UNCLOS as "highly migratory"



Comparisons with existing lists

Species	Common name	List A	List B	UNCLOS Annex I
Aetobatus narinari	Spotted eagle ray			-
Bathyraja violacea	Okhotsk skate			
Dasyatis brevis	Whiptail stingray			
Hypanus longus	Longtail stingray			
Pteroplatytrygon violacea	Pelagic stingray			l
Mobula alfredi	Alfred manta			
Mobula birostris	Giant manta			
Mobula mobular	Spinetail manta			
Mobula munkiana	Munk's devil ray			
Mobula tarapacana	Chilean devil ray			l
Mobula thurstoni	Smoothtail manta			
Narcine entemedor	Giant electric ray			
Styracura pacifica	Pacific whiptail stingray			
Pseudobatos glaucostigma	Speckled guitarfish			
Pseudobatos leucorhynchus	Whitesnout guitarfish			
Rhinoptera steindachneri	Pacific cownose ray			
Tetronarce tremens	Chilean torpedo			
	Number of species	17	7	0

- UNCLOS Annex 1 in Preamble of Antigua Convention
- Unlike sharks, no ray species included

ANNEX I. HIGHLY MIGRATORY SPECIES

- 1. Albacore tuna: Thunnus alalunga.
- 2. Bluefin tuna: Thunnus thynnus.
- 3. Bigeye tuna: Thunnus obesus.
- 4. Skipjack tuna: Katsuwonus pelamis.
- 5. Yellowfin tuna: Thunnus albacares.
- 6. Blackfin tuna: Thunnus atlanticus.
- 7. Little tuna: Euthynnus alletteratus; Euthynnus affnis.
- 8. Southern bluefin tuna: Thunnus maccoyii.
- 9. Frigate mackerel: Auxis thazard; Auxis rochei.
- 10. Pomfrets: Family Bramidae.
- 11. Marlins: Tetrapturus angustirostris; Tetrapturus belone; Tetrapturus pfluegeri; Tetrapturus albidus; Tetrapturus audax; Tetrapturus georgei; Makaira mazara; Makaira indica; Makaira nigricans.
- 12. Sail-fishes: Istiophorus platypterus; istiophorus albicans.
- 13. Swordfish: Xiphias gladius.
- 14. Sauries: Scomberesox saurus; Cololabis saira; Cololabis adocetus; Scomberesox saurus scombroides.
- 15. Dolphin: Coryphaena hippurus; Coryphaena equiselis.
- 16. Oceanic sharks: Hexanchus griseus; Cetorhinus maximus; Family Alopiidae; Rhincodon typus; Family Carcharhinidae; Family Sphyrnidae; Family Isurida.
- 17. Cetaceans: Family Physeteridae, Family Balaenopteridae; Family Balaenidae; Family Eschrichtiidae; Family Monodontidae; Family Ziphiidae; Family Delphinidae.

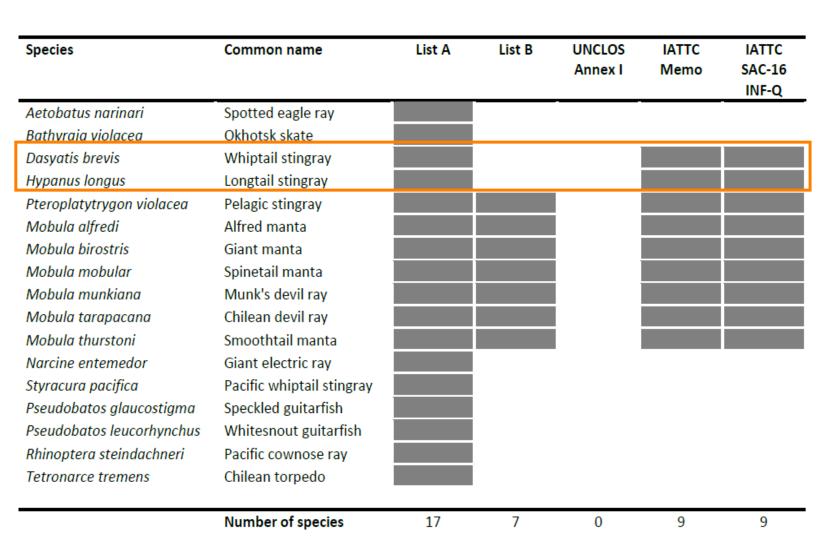
Comparisons with existing lists

Species	Common name	List A	List B	UNCLOS Annex I	IATTC Memo	IATTC SAC-16 INF-Q
Aetobatus narinari	Spotted eagle ray			-		-
Bathyraja violacea	Okhotsk skate					
Dasyatis brevis	Whiptail stingray					
Hypanus longus	Longtail stingray					
Pteroplatytrygon violacea	Pelagic stingray					
Mobula alfredi	Alfred manta					
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Rhinoptera steindachneri	Pacific cownose ray					
Tetronarce tremens	Chilean torpedo					
	Number of species	17	7	0	9	9

- IATTC Director's Memo
- IATTC LL updated data provision (SAC-16 INF-O)

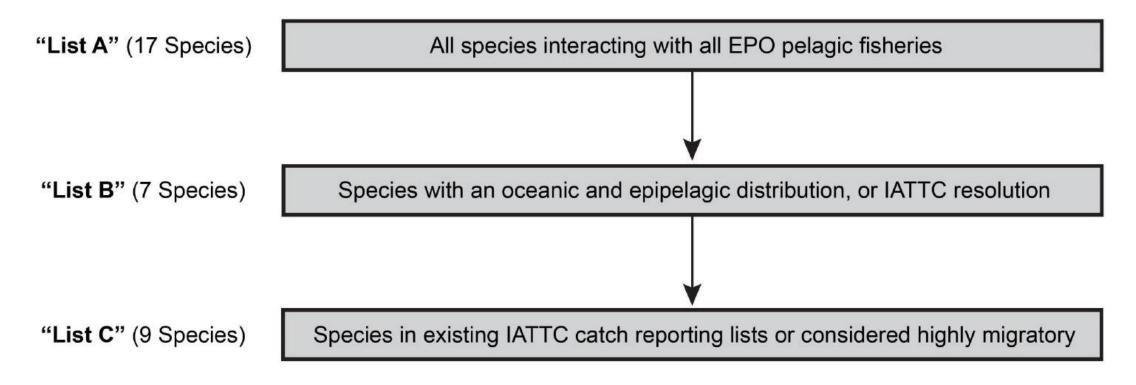


Comparisons with existing lists



- IATTC Director's Memo
- IATTC LL updated data provision (SAC-16 INF-O)
- Includes "Dasyatis spp." mainly for pelagic stingray





- However, the two additional species (Dasyatis brevis and Hypanus longus) are neritic and demersal species
- Included only due to IATTC reporting of Dasyatid species (mainly to include pelagic stingray)



Conclusions

In conclusion, the staff considers, at a minimum, 7 species in List B
 (comprising industrial and small-scale coastal fleets) be adopted as an
 interim list of ray species



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 - 2. "...The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures."



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 (comprising industrial and small-scale coastal fleets) be adopted as an
 interim list of ray species
- But we must consider **Article IV**. Application of the Precautionary Approach
 - 2. "...The absence of adequate scientific information shall not be used as a reason for postponing or failing to take conservation and management measures."
- Given no single organization responsible for rays in the EPO, the staff suggests the Commission note the ecological and conservation importance of the remaining 10 impacted species and be willing to cooperate in conservation efforts initiated by relevant organizations, if there is a clear role for IATTC to play.

Preguntas – Questions?



