

2023年6月15日

OPRT 混獲問題方針

1. 背景

はえ縄漁法が意図的に又は偶発的にサメを漁獲し¹、偶発的に海亀及び海鳥を漁獲することはよく知られている。サメは、偶発的に漁獲されても保持されることが多く、海亀及び海鳥は投棄される。

ヨシキリザメのようないくつかのサメ類は資源状況が良く、利用可能であるが、多くのサメ類は生産力が低く漁獲圧力に対して脆弱である。

海亀及び海鳥のうち多くの種の資源状況に懸念がある。漁業はその主たる原因ではないかも知れないが、このような種の偶発的漁獲は最小化されるべきである。資源状況に懸念がない場合であっても、利用されないことから偶発的漁獲は低減されるべきである。

サメの保存及び海亀・海鳥の偶発的漁獲に関する懸念を手当てするため、FAO は、1999年に、「サメの保存管理に関する国際行動計画」及び「はえ縄漁業における海鳥の偶発的漁獲を低減するための国際行動計画」を策定した。FAO はまた、2009年に「漁業操業における海亀の死亡を低減するためのガイドライン」を策定している。地域漁業管理機関（RFMOs）はいくつかのサメ類の保存・保護及び漁業における海亀及び海鳥の偶発的死亡を低減するための措置を講じている。

2. OPRT の混獲に関する一般的方針

(1) OPRT に登録しているはえ縄漁船(以下「OPRT 漁船」という。)は、マグロ RFMO (IATTC、IOTC、ICCAT、WCPFC) の水域で操業する際には、各水域で RFMO が講じている拘束力のある混獲関連措置を完全に実施する。OPRT 漁船が、ミナミマグロを漁獲する際には、操業海域によって該当する RFMO の混獲関連措置を完全に実施する。これら拘束力のある措置は別添において黄色で示されている²。

(2) OPRT 漁船は、サメ、海亀及び海鳥に関するデータを、各まぐろ RFMO の該当する規定に従い収集し、提出する。

¹ この文書において「偶発的漁獲」は「混獲」と同義語として使われる。

² 別添は簡潔にするために報告義務を含んでいない。

(3) 加えて、OPRT 漁船は、マグロ RFMO の水域で操業する際には、各水域で RFMO が講じている混獲関連措置であって拘束力のないものを実施することが強く奨励される。これらの措置は別添において青で示されている、

(4) いくつかのマグロ RFMO が他の RFMO に比べてより厳しい措置を講じている場合には、OPRT 漁船は当該他の RFMO において自主的にそのような措置を実施することを検討する。

3. 種別の事項

サメ及びエイ

(1) 完全利用

フィニング（ヒレだけを所持し胴体を捨てること）は、長年すべてのマグロ RFMO により禁止されてきた。近年に至っても、何隻かのはえ縄漁船がフィニングを行ったという嫌疑をかけられているのは残念である。OPRT メンバーは、フィニングがマグロはえ縄業界全体に害をなすことを認識する。

フィニング防止のために、IATTC と ICCAT は、5%ルール³を使用しているが、IOTC は一歩進んだ措置（生鮮で水揚げされるサメについてはヒレを胴体から切り離すことを禁止）を導入しており、WCPFC はいくつかの代替措置とともに生鮮及び冷凍のサメの両方についてそのような切り離しを禁止している。漁獲されたサメが利用されるのであれば、そのような切り離しの禁止は保存上の意味を持たないが、フィニングが続くようであればこのような措置が必要になるかもしれないことが認識されるべきである。

(2) ある種の漁具の禁止

IATTC と WCPFC は、シャークライン又はワイヤートレースを禁止している。WCPFC は、2022 年に一歩進んで、ヨゴレとクロトガリザメの保護を図るため、2024 年 1 月 1 日から、北緯 20 度位南、南緯 20 度以北の海域においては、両方を禁止することを決定した。これは、これらの種は既に保持禁止となっているが、資源が回復しておらず、混獲の殆どがこの海域で起こっているからである。

シャークラインとワイヤートレースの両方を禁止することは、資源状態に拘わらず全てのサメ類を保護することを意味し、資源状態に懸念のないヨシキリザメのようなサメ類の持続的利用を否定するものである。しかしながら、今回の WCPFC の決定のように、

³ 最初の水揚げ地点までは船上のヒレ重量がサメ重量の 5%を超えてはならないこと。

そのような禁止を支持する科学的必要性が存在し、それが資源状態の良い他のサメ類の漁獲に悪影響を与えない場合は検討可能である。

(3) ヨゴレ

全てのマグロ RFMO は、ヨゴレの船上保持を禁止している。

(4) シュモクザメ

ICCAT はシュモクザメ類の船上保持を禁止している。ただし、このうちアカシュモクザメとシロシュモクザメは、2012 年の [ICCAT 生態系リスク評価](#) においては最も脆弱性の低い種とされていることに留意すべきである。仮に他のマグロ RFMO においてシュモクザメの保持禁止が提案される場合には、科学的妥当性をしっかりとチェックすべきである。

(5) オナガザメ

ICCAT はハチワレの船上保持を禁止しており、IOTC はオナガザメ類 3 種（ハチワレ、ニタリ、マオナガ）の船上保持を禁止している。ハチワレは、2012 年の [ICCAT 生態系リスク評価](#) において最も脆弱であるとされていることに留意すべきである。WCPFC は、この種についての管理アドバイスはないが、[太平洋ハチワレの資源状況及び管理アドバイス](#) によれば、いくつかの漁獲圧力の中央値はいくつかの基準値を超えている。[2019 年の IATTC 生態系リスク評価](#) によれば、ハチワレとニタリは、最も脆弱と分類されている。

(6) クロトガリザメ

IATTC、ICCAT 及び WCPFC はクロトガリザメの船上保持を禁止している。IOTC は、大きな不確実性のためにこの種について措置がないが、[IOTC のクロトガリザメの状況説明要約](#) によれば、この種ははえ縄漁業において 2 番目に脆弱な種である。

(7) ニシネズミザメ

ICCAT はニシネズミザメの船上保持を禁止している。この種は、北大西洋及び南半球の高緯度海域に分布する。太平洋南半球資源のリスクは非常に低い ([WCPFC 評価](#))。2019 年の [IATTC リスク評価](#) によれば、この種は最も脆弱性が低い。

(8) ヨシキリザメ

ICCAT は、北大西洋ヨシキリザメに TAC と割当、南大西洋ヨシキリザメに TAC を導入している。その他のマグロ RFMO は措置がない。WCPFC の[北太平洋及び南太平洋資源の状況及び管理アドバイス](#)によれば、これら資源は枯渇しておらず過剰漁獲も起こっていない。[2019 年の IATTC 生態系リスク評価](#)によれば、この種は最も脆弱となっているが、資源評価に基づく WCPFC の記述が優先されるべきである。IOTC もまた、資源は枯渇しておらず過剰漁獲も起こっていないとしている ([IOTC ヨシキリザメの資源状態の要約](#))。ヨシキリザメの資源状態は太平洋とインド洋で良いが、資源状態が良いときの方が TAC と割当の導入がより容易であろう。OPRT メンバーは、資源が悪化して保存措置を受け入れさせられるといった状況を避けるべきである。

(9) アオザメ

ICCAT は、アオザメについて措置を導入している。他のマグロ RFMO は措置がない。WCPFC の[北太平洋資源の状況及び管理アドバイス](#)によれば、資源は枯渇しておらず過剰漁獲も起こっていない。[2019 年の IATTC 生態系リスク評価](#)によれば、この種は最も脆弱であるとされているが、資源評価に基づく WCPFC の記述が優先されるべきである。IOTC 水域においては、大きな不確実性のために資源状態は不明であるが、アオザメは 2018 年の IOTC 生態系リスク評価において、はえ縄漁業において最も脆弱であるとされている ([IOTC アオザメの資源状態の要約](#))。

(10) イトマキエイ

IATTC、IOTC 及び WCPFC は、イトマキエイに関する措置を導入しており、これには保持禁止が含まれる。ICCAT においてはイトマキエイに関する情報は不明。

4. 海亀

全てのマグロ RFMO が、海亀の混獲緩和措置を導入しており、はえ縄漁業者に浅縄操業の際にはサークルフック又は魚餌の使用を義務付けている (IOTC のみ丸の魚餌の使用は奨励)。

5. 海鳥

IATTC は、コラム A から一つ、コラム B から一つ措置をとることを義務付けている。ICCAT と IOTC は、これを変更して、鳥ライン、夜間のはえ縄敷設及び加重枝縄の 3 つのうちから 2 つを使用することになっている。WCPFC は、海域毎の海鳥混獲のリスクの程度に応じて異なる措置を導入しており、加えて、針カバーを単独で使用可能な手段として掲載している。OPRT 漁船は、IATTC の措置を WCPFC の措置又は少なくとも ICCAT や IOTC の措置に合わせることを検討すべきである。

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
Shark: full utilization	<p data-bbox="353 316 510 343">Res. C-23-07</p> <p data-bbox="353 395 730 850">4. CPCs shall take the necessary measures to require that their fishers fully utilize all retained catches of sharks, with the exception of those species for which a retention ban has been adopted by the IATTC. (“Full utilization” is defined in para 1 as “retention by a vessel of all parts of the shark, except head and guts, as appropriate until the first point of landing.”)</p> <p data-bbox="353 903 730 970">5. CPCs shall prohibit shark finning.</p> <p data-bbox="353 1023 730 1391">6. CPCs shall ensure that all sharks are landed with all fins naturally attached to the body. In order to facilitate on-board storage, shark fins may be partially sliced through and folded against the shark carcass as appropriate but shall remain naturally attached to the carcass until the first point of landing (see Annex 2: not included</p>	<p data-bbox="752 316 880 343">Rec. 04-10</p> <p data-bbox="752 395 1173 655">2. CPCs shall take the necessary measures to require that their fishermen fully utilize their entire catches of sharks. Full utilization is defined as retention by the fishing vessel of all parts of the shark excepting head, guts and skins, to the point of first landing.</p> <p data-bbox="752 1023 1173 1391">3. 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</p>	<p data-bbox="1196 316 1323 343">Res. 17-05</p> <p data-bbox="1196 395 1617 735">2. CPCs shall take the necessary measures to require that their fishermen fully utilise their entire catches of sharks, with the exception of species prohibited by the IOTC. Full utilisation is defined as retention by the fishing vessel of all parts of the shark excepting head, guts and skins, to the point of first landing.</p> <p data-bbox="1196 788 1617 1086">3. a) Sharks landed fresh: CPCs shall prohibit the removal of shark fins on board vessels. CPCs shall prohibit the landing, retention on-board, transshipment and carrying of shark fins which are not naturally attached to the shark carcass until the first point of landing.</p> <p data-bbox="1196 1139 1617 1391">b) Sharks landed frozen: CPCs that do not apply sub-paragraph 3 a) for all sharks shall require their vessels to not have on board fins that total more than 5% of the weight of sharks on board, up to the first point of landing. CPCs that currently do not require fins and</p>	<p data-bbox="1639 316 1794 343">CMM2022-04</p> <p data-bbox="1639 395 2080 576">7. CCMs shall take measures necessary to require that all sharks retained on board their vessels are fully utilized. CCMs shall ensure that the practice of finning is prohibited.</p> <p data-bbox="1639 628 2080 809">8. In order to implement the obligation in paragraph 7, in 2022, 2023 and 2024, CCMs shall require their vessels to land sharks with fins naturally attached to the carcass.</p> <p data-bbox="1639 861 2080 1086">9. Notwithstanding paragraph 8, in 2022, 2023 and 2024, CCMs may take alternative measures as listed below to ensure that individual shark carcasses and their corresponding fins can be easily identified on board the vessel at any time:</p> <p data-bbox="1639 1139 2080 1240">(1) Each individual shark carcass and its corresponding fins are stored in the same bag, preferably biodegradable one;</p> <p data-bbox="1639 1292 2080 1391">(2) Each individual shark carcass is bound to the corresponding fins using rope or wire;</p>

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
	<p>in this document).</p> <p>7. Until the end of 2026, notwithstanding paragraphs 6, and other provisions in this Resolution, CPCs may take alternative measures to ensure that individual shark carcasses and their corresponding fins can be easily identified on board the vessel at any time, using one of the following methods:</p> <p>(i) each individual shark carcass and its corresponding fins are stored in the same bag, preferably a biodegradable one</p> <p>(ii) each individual shark carcass is bound to the corresponding shark fins using rope or wire; or,</p> <p>(iii) the shark fins and the corresponding shark are identically, uniquely, and numerically tagged in a manner that an authorized inspector can readily identify the matching of the shark fins to the corresponding shark.</p> <p>8. Fishing vessels are prohibited from retaining on board,</p>	<p>observer, or other appropriate measures.</p> <p>4. The ratio of fin-to-body weight of sharks described in paragraph 3 shall be reviewed by the SCRS and reported back to the Commission in 2005 for revision, if necessary.</p> <p>5. Fishing vessels are prohibited from retaining on board, transshipping or</p>	<p>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.</p> <p>5. Without prejudice to paragraph 3, in order to facilitate on-board storage, shark fins may be partially sliced through and folded against the shark carcass, but shall not be removed from the carcass until the first point of landing.</p> <p>7. CPCs shall prohibit the purchase, offer for sale and sale of shark fins</p>	<p>(3) Identical and uniquely numbered tags are attached to each shark carcass and its corresponding fins in a manner that inspectors can easily identify the matching of the carcass and fins at any time. Both the carcasses and fins shall be stored on board in the same hold. Notwithstanding this requirement, a CCM may allow its fishing vessels to store the carcasses and corresponding fins in different holds if the fishing vessel maintains a record or logbook that shows where the tagged fins and correspondingly tagged carcasses are stored, in a manner that they are easily identified by inspectors.</p> <p>12. CCMs shall take measures necessary to prevent their fishing vessels from</p>

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SPECIES	IATTC	ICCAT	IOTC	WCPFC
	<p>transshipping, landing or trading of any fins harvested or that have been removed on board in contravention of this Resolution.</p> <p>9. Paragraphs 4 to 8 shall be reviewed, in consultation with IATTC scientific staff, and amendments shall be adopted by the Commission in 2026, as necessary. If no agreement is reached in 2026 on paragraph 7, paragraph 7 shall be replaced with the following text: Notwithstanding paragraphs 6, and other provisions in this Resolution, CPCs may take alternative measures to 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.</p>	<p>landing any fins harvested in contravention of this Recommendation.</p>	<p>which have been removed on-board, retained on-board, transhipped or landed, in contravention to this Resolution.</p>	<p>retaining on board (including for crew consumption), transshipping, and landing any fins harvested in contravention of this CMM.</p> <p>13. CCMs shall take measures necessary to ensure that both carcasses and their corresponding fins are landed or transshipped together, in a manner that allows inspectors to verify the correspondence between an individual carcass and its fins when they are landed or transshipped.</p>

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
Shark: prohibition of certain gears	10. CPCs shall prohibit vessels targeting tuna and/or swordfish from using buoy lines.			<p>14. For longline fisheries targeting tuna and billfish, CCMs shall ensure that their vessels comply with at least one of the following options:</p> <p>(1) do not use or carry wire trace as branch lines or leaders; or</p> <p>(2) do not use branch lines running directly off the longline floats or drop lines, known as shark lines. See Annex 1 for a schematic diagram of a shark line.</p> <p>15. The implementation of the measures contained in paragraph 14 above shall be on a vessel by vessel or CCM basis. Each CCM shall notify the Commission of its implementation of paragraph 14 by March 31, 2021 and thereafter whenever the selected option is changed.</p> <p>16. Starting on January 1, 2024, between 20 N and 20 S, CCMs shall ensure that their longline vessels targeting tuna and billfish do not use, or if carrying, must stow wire trace as branch lines or leaders and do not use shark lines or branch lines running directly off of the longline floats or drop lines (see Annex 1 for schematic diagram of a shark line).</p>

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SPECIES	IATTC	ICCAT	IOTC	WCPFC
Shark: safe release	<p>11. All sharks (alive or dead) that are not retained must be promptly released unharmed, to the extent practicable, as soon as they are seen on the line, entangled in the net or brailled on the deck, taking due consideration of the safety of any persons using the following procedures:</p> <p>For longline vessels:</p> <p>f. leave the shark in the water, where possible.</p> <p>g. use a line cutter to cut the branchline as close to the hook as possible, and so that less than 1 meter remains on the animal, to the extent practicable.</p>	<p>6 In fisheries that are not directed at sharks, CPCs shall encourage the release of live sharks, especially juveniles, to the extent possible, that are caught incidentally and are not used for food and/or subsistence.</p>	<p>4. In fisheries in which sharks are unwanted species, CPCs shall, to the extent possible, encourage the release of live sharks, especially juveniles and pregnant sharks that are caught incidentally and are not used for food and/or subsistence. CPCs shall require that fishers are aware of and use identification guides (e.g. IOTC Shark and Ray Identification in Indian Ocean Fisheries) and handling practices.</p>	<p>20. CCMs shall ensure that sharks that are caught and are not to be retained, are hauled alongside the vessel before being cut free in order to facilitate a species identification. This requirement shall only apply when an observer or electronic monitoring camera is present, and should only be implemented taking into consideration the safety of the crew and observer.</p> <p>21. Beginning on January 1, 2024, for sharks that are caught by longline vessels and are not retained, CCMs shall require their fishing vessels to release these sharks as soon as possible, taking into consideration the safety of the crew and observer, using the following guidelines:</p> <p>(1) Leave the shark in the water, where possible; and</p> <p>(2) use a line cutter to cut the branchline as close to the hook as possible.</p>
Oceanic whitetip shark	<p>Res. C-11-10</p> <p>1. Members and Cooperating non-Members (CPCs) shall prohibit retaining onboard, transshipping, landing, storing, selling, or offering for sale any part or whole</p>	<p>Rec. 10-07</p> <p>1. Contracting Parties, and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereafter referred to as CPCs) shall prohibit retaining onboard, transshipping, landing,</p>	<p>Res. 13-06</p> <p>3. Notwithstanding paragraphs 1 and 2, CPCs shall prohibit, as an interim pilot measure, all fishing vessels flying their flag and on the IOTC Record of Authorised Vessels, or</p>	<p>23. Oceanic whitetip shark and silky shark</p> <p>(1) CCMs shall prohibit vessels flying their flag and vessels under charter arrangements to the CCM from retaining on board, transshipping, storing on a fishing vessel or landing any oceanic</p>

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SPECIES	IATTC	ICCAT	IOTC	WCPFC
Hammerhead sharks	<p>carcass of oceanic whitetip sharks in the fisheries covered by the Antigua Convention.</p> <p>2. CPCs shall require vessels flying their flag to promptly release unharmed, to the extent practicable, whitetip sharks when brought alongside the vessel.</p>	<p>storing, selling, or offering for sale any part or whole carcass of oceanic whitetip sharks in any fishery.</p> <p>Rec. 10-08</p>	<p>authorised to fish for tuna or tuna-like species managed by the IOTC on the high seas to retain onboard, tranship, land or store any part or whole carcass of oceanic whitetip sharks with the exception of paragraph 7 (Note: sampling by observers). The provisions of this measure do not apply to artisanal fisheries operating exclusively in their respective Exclusive Economic Zone (EEZ) for the purpose of local consumption.</p> <p>4. CPCs shall require fishing vessels flying their flag and on the IOTC Record of Authorised Vessels or authorised to fish for tuna and tuna-like species managed by the IOTC on the high seas to promptly release unharmed, to the extent practicable, of oceanic whitetip sharks when brought alongside for taking onboard the vessel. However, CPCs should encourage their fishers to release this species if recognised on the line before bringing them onboard the vessels.</p>	<p>whitetip shark, or silky shark, in whole or in part, in the fisheries covered by the Convention.</p> <p>(2) CCMs shall require all vessels flying their flag and vessels under charter arrangements to the CCM to release any oceanic whitetip shark or silky shark that is caught as soon as possible after the shark is brought alongside the vessel, and to do so in a manner that results in as little harm to the shark as possible, following any applicable safe release guidelines for these species.</p>

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
Thresher sharks	<p data-bbox="353 933 517 962">Res. C-21-06</p> <p data-bbox="353 1013 730 1390">3. CPCs shall require all longline vessels whose fishing licenses do not include sharks as a fishing target but catch sharks incidentally, to limit bycatch of silky sharks to a maximum of 20% of the total catch by fishing trip in weight. The 20% limit is set as an interim limit in the absence of data and scientific analysis on which to</p>	<p data-bbox="752 231 1173 647">1. Contracting Parties, and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereafter referred to as CPCs) shall prohibit retaining onboard, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of hammerhead sharks of the family <i>Sphyrnidae</i> (except for the <i>Sphyrna tiburo</i>), taken in the Convention area in association with ICCAT fisheries.</p> <p data-bbox="752 699 1173 884">2. CPCs shall require vessels flying their flag, to promptly release unharmed, to the extent practicable, hammerhead sharks when brought alongside the vessel.</p> <p data-bbox="752 933 887 962">Rec. 09-07</p> <p data-bbox="752 1013 1173 1353">1. Contracting Parties, and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereafter referred to as CPCs) shall prohibit, retaining onboard, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of bigeye thresher sharks (<i>Alopias superciliosus</i>) in any fishery with exception of a Mexican</p>	<p data-bbox="1196 933 1330 962">Res. 12-09</p> <p data-bbox="1196 1013 1608 1390">2. Fishing Vessels flying the flag of an IOTC Member or Cooperating Non-Contracting Party (CPCs) are prohibited from retaining on board, transshipping, landing, storing, selling or offering for sale any part or whole carcass of thresher sharks of all the species of the family Alopiidae, with the exception of paragraph 7 (Note: sampling by observer).</p>	

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
Silky shark	<p>base conservation and management measures, and will be revised, based on recommendations by the scientific staff, once improved species-level catch and composition data are available.</p> <p>Res. C-23-08</p> <p>3. CPCs shall require all longline vessels whose fishing licenses do not include sharks as a fishing target but catch sharks incidentally, to limit bycatch of silky sharks to a maximum of 20% of the total catch by fishing trip in weight. The 20% limit is set as an interim limit in the absence of data and scientific analysis on which to base conservation and management measures, and will be</p>	<p>small-scale coastal fishery with a catch of less than 110 fish.</p> <p>2. CPCs shall require vessels flying their flag to promptly release unharmed, to the extent practicable, bigeye thresher sharks when brought along side for taking on board the vessel.</p> <p>3. CPCs should strongly endeavor to ensure that vessels flying their flag do not undertake a directed fishery for species of thresher sharks of the genus <i>Alopias</i> spp.</p> <p>Rec. 11-08</p> <p>1. Contracting Parties, and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereafter referred to as CPCs) shall require fishing vessels flying their flag and operating in ICCAT managed fisheries to release all silky sharks whether dead or alive, and prohibit retaining on board, transshipping, or landing any part or whole carcass of silky shark.</p>	<p>3. CPCs shall require vessels flying their flag to promptly release unharmed, to the extent practicable, thresher sharks when brought along side for taking on board the vessel.</p>	<p>The measures for oceanic whitetip shark shall be applied also to silky shark.</p>

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
	<p>revised, based on recommendations by the scientific staff, once improved species-level catch and composition data are available.</p> <p>4. CPCs shall require their multi-species fisheries using surface longlines¹ to limit the catch of silky sharks of less than 100 cm total length to 20% of the total number of silky sharks caught during the trip.</p> <p>5. CPCs that allow retention of silky sharks by their longline vessels, shall ensure compliance with the measures established in paragraphs 3 and 4 by means of control and inspection mechanisms, for Port CPCs and Flag CPCs, as applicable. At a minimum, such mechanisms shall require effective inspections at the time of first unloading in port or the submission of catch logbooks that will allow for species identification, verification of size when caught, and enforcement of applicable sanctions such as</p>	<p>2. CPCs shall require vessels flying their flag to promptly release silky sharks unharmed, at the latest before putting the catch into the fish holds, giving due consideration to the safety of crew members. Purse seine vessels engaged in ICCAT fisheries shall endeavor to take additional measures to increase the survival rate of silky sharks incidentally caught.</p>		

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
	<p>prevention of entry into markets of product caught in violation of this measure. Where applicable, internationally recognized certification and reporting procedures for the conservation of silky sharks may be used for fulfilling the obligations of this paragraph. CPCs shall inform the IATTC Secretariat of the use of said certification procedures. Data derived from these control and inspection measures shall be communicated to the Secretariat, in accordance with IATTC data submission requirements.</p> <p>7. For those multi-species fisheries using surface longlines that have captured more than 20% of silky sharks in weight on average in a year, CPCs shall prohibit the use of steel leaders during a period of three consecutive months each year. The average proportion of silky sharks in the catch will be calculated from data of the previous calendar year. New vessels entering the multi-species fisheries affected by this</p>			

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
Whale shark	Resolution and those for which no data are available from the period immediately prior shall be subject to the provisions of this paragraph.			23. Whale shark (2) CCMs shall prohibit vessels flying their flag and vessels under charter arrangements to the CCM from retaining on board, transshipping, or landing any whale shark caught in the Convention Area, in whole or in part, in the fisheries covered by the Convention.
Porbeagle shark		<p>Rec. 15-06</p> <p>1. Contracting Parties, and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereafter referred to as CPCs) shall require their vessels to promptly release unharmed, to the extent practicable, porbeagle sharks caught in association with ICCAT fisheries when brought alive alongside for taking on board the vessel.</p>		
Blue shark		<p>Rec. 19-07 amended by Rec. 21-10</p> <p>2. An annual TAC of 39,102 t for North Atlantic blue shark is established. The</p>		

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC						
		<p>annual TAC may be revised subject to a decision of the Commission based on the updated advice of the SCRS in 2021, or at an earlier stage if enough information is provided by the SCRS.</p> <p>3. The following CPCs shall be subject to the following catch limits:</p> <table data-bbox="763 539 1010 651"> <tr> <td>EU</td> <td>32,578 t</td> </tr> <tr> <td>Japan</td> <td>4,010 t</td> </tr> <tr> <td>Morocco</td> <td>1,644 t</td> </tr> </table> <p>*The European Union is authorised to transfer 32.58 t from its catch limit in 2022 to the United Kingdom (Note: This footnote was added by Rec. 21-10.)</p> <p>Rec. 19-08 amended by Rec. 21-11</p> <p>2. An annual Total Allowable Catch (TAC) of 28,923 t for South Atlantic blue shark is established. The Annual TAC may be revised subject to a decision of the Commission based on the updated advice of the SCRS in 2023, or at an earlier stage if enough information is provided by the SCRS. (Note: “2021” was replaced by “2023” by Rec. 21-11.)</p>	EU	32,578 t	Japan	4,010 t	Morocco	1,644 t		
EU	32,578 t									
Japan	4,010 t									
Morocco	1,644 t									

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
Shortfin mako shark		See Appendix.		
Mobulid rays	<p data-bbox="353 347 517 379">Res. C-15-04</p> <p data-bbox="353 427 734 770">1. Members and Cooperating Non-Members (CPCs) shall prohibit retaining onboard, transshipping, landing, storing, selling, or offering for sale any part or whole carcass of Mobulid rays (which includes <i>Manta</i> rays and <i>Mobula</i> rays) caught in the IATTC Convention Area.</p> <p data-bbox="353 818 734 930">2. CPCs shall require their vessels to release all Mobulid rays alive wherever possible.</p> <p data-bbox="353 978 734 1388">3. CPCs shall require vessels flying their flag to promptly release unharmed, to the extent practicable, Mobulid rays caught in the IATTC Convention Area as soon as they are seen in the net, on the hook, or on the deck, and do it in a manner that will result in the least possible harm to the Mobulid rays captured without compromising the safety of any</p>		<p data-bbox="1196 347 1330 379">Res. 19-03</p> <p data-bbox="1196 427 1610 651">2. CPCs shall prohibit all vessels from intentionally setting any gear type for targeted fishing of mobulid rays in the IOTC Area of Competence, if the animal is sighted prior to commencement of the set.</p> <p data-bbox="1196 699 1610 890">3. CPCs shall prohibit all vessels retaining onboard, transshipping, landing, storing, any part or whole carcass of mobulid rays caught in the IOTC Area of Competence.</p> <p data-bbox="1196 970 1610 1388">5. CPCs shall require all their fishing vessels, other than those carrying out subsistence fishery, to promptly release alive and unharmed, to the extent practicable, mobulid rays as soon as they are seen in the net, on the hook, or on the deck, and do it in a manner that will result in the least possible harm to the individuals captured. The handling procedures detailed in Annex I, while taking into</p>	<p data-bbox="1632 347 1812 379">CMM 2019-05</p> <p data-bbox="1632 427 2080 539">3. CCMs shall prohibit their vessels from targeted fishing or intentional setting on mobulid rays in the Convention Area.</p> <p data-bbox="1632 699 2080 890">4. CCMs shall prohibit their vessels from retaining on board, transshipping, or landing any part or whole carcass of mobulid rays caught in the Convention Area.</p> <p data-bbox="1632 970 2080 1361">5. CCMs shall require their fishing vessels to promptly release alive and unharmed, to the extent practicable, mobulid rays as soon as possible, and to do so in a manner that will result in the least possible harm to the individuals captured. CCMs should encourage their fishing vessels to implement the handling practices detailed in Annex 1, while taking into consideration the safety of the crew.</p>

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
Sea turtles	<p>persons, following the guidance in the 2014 and 2015 recommendations of the IATTC scientific staff at all times, as detailed in Annex 1 to this Resolution.</p> <p>Res. C-19-04</p> <p>1. IATTC Members and Cooperating Non-Members (“CPCs”) shall require owners/operators/vessel crew on vessels targeting species covered by the Convention to promptly release, in a manner that causes the least harm to the extent practicable, all sea turtles, without compromising the safety of any persons.</p> <p>3. CPCs with longline vessels fishing for species covered by the IATTC in the Convention Area shall:</p> <p>a. Require owners/operators of longline vessels to carry on board, and employ when appropriate, safe-handling tools for the safe</p>	<p>Rec. 2022-12</p> <p>1. In order to reduce bycatch and increase post-release survival of threatened and endangered sea turtle populations within the Convention area:</p> <p>a) CPCs with longline vessels that fish in a shallow-set manner (Note: Shallow-set fisheries are generally to be considered those in which the majority of hooks fish at depth shallower than 100 meters, as determined by the SCRS.) shall, while operating ICCAT fisheries, employ or implement at least one of the following methods:</p> <p>i. Use of only large circle hooks (Note: Circle hooks are defined as a hook with the point turned perpendicularly back to the shank to form a generally circular</p>	<p>consideration the safety of the crew shall be implemented and followed.</p> <p>Res. 12-04</p> <p>6. CPCs shall require fishermen on vessels targeting species covered by the IOTC Agreement to bring aboard, if practicable, any captured marine turtle that is comatose or inactive as soon as possible and foster its recovery, including aiding in its resuscitation, before safely returning it to the water. CPCs shall ensure that fishermen are aware of and use proper mitigation, identification, handling and de-hooking techniques and keep on board all necessary equipment for the release of marine turtles, in accordance with handling guidelines in the IOTC Marine Turtle Identification Cards.</p> <p>8. CPCs with longline vessels that fish for species covered by the IOTC Agreement shall:</p>	<p>CMM 2018-04</p> <p>4. CCMs shall require fishermen on vessels targeting species covered by the Convention to bring aboard, if practicable, any captured hard-shell sea turtle that is comatose or inactive as soon as possible and foster its recovery, including giving it resuscitation, before returning it to the water. CCMs shall ensure that fishermen are aware of and use proper mitigation and handling techniques, as described in WCPFC guidelines.</p> <p>6. CCMs with longline vessels that fish for species covered by the Convention shall ensure that the operators of all such longline vessels carry and use line cutters and de-hookers to handle and promptly release sea turtles caught or entangled, and that they do so in accordance with WCPFC guidelines. CCMs shall also</p>

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
	<p>release of sea turtles (e.g. de-hookers, line cutters, and dip nets).</p> <p>b. Require that owners/operators/vessel crew of longline vessels take all reasonable steps, as appropriate, to ensure the safe release of any incidentally-caught sea turtles by following handling and release guidelines in the Appendix, and consistent with the FAO "Best practices for sea turtle handling and release."</p> <p>d. Require owners/operators of longline vessels fishing in a shallow-set manner (Note: shallow-set manner, including surface longlines, means the majority of hooks fish at depths shallower than 100 meters) to employ at least one of the following mitigation measures:</p> <p>i. Use only large circle hooks (Note: Large circle hooks are defined as a hook with the point turned perpendicularly back to the shank to form a generally circular or oval shape, and the point of the</p>	<p>or oval shape. CPCs should adopt the use of circle hooks with an offset of no more than 10 degrees.) ; or</p> <p>ii. Use of only finfish bait; or</p> <p>iii. Use of [an] other measure[s] or approach[es]—that [has] have been reviewed and considered effective by the SCRS and approved by the Commission to be capable of reducing the interaction rate of sea turtles in shallow set longline fisheries.</p> <p>b) Any CPC that achieves and maintains 10% scientific observer coverage and complies with the data reporting requirements of Recs. 11-10, 16-14, and paragraph 6 below, may request from Paragraph 1 a) an exemption for one or more of its ICCAT fisheries above by submitting relevant scientific information to the SCRS. The SCRS will evaluate that information and advise the Commission on sea turtle interactions and mortality. The Commission shall make decisions on any requested exemption in light of the SCRS advice.</p>	<p>a) Ensure that the operators of all longline vessels carry line cutters and de-hookers in order to facilitate the appropriate handling and prompt release of marine turtles caught or entangled, and that they do so in accordance with IOTC Guidelines. CPCs shall also ensure that operators of such vessels follow the handling guidelines in the IOTC Marine Turtle Identification Cards;</p> <p>b) Where appropriate, encourage the use of whole finfish bait;</p>	<p>ensure that operators of such vessels are, where appropriate, required to carry and use dip-nets in accordance with these WCPFC guidelines.</p> <p>7. CCMs with longline vessels that fish in a shallow-set manner (Note: "Shallow-set" fisheries are generally to be considered those in which the majority of hooks fish at depth shallower than 100 meters; however pursuant to paragraph 7(c) CCMs are to establish and enforce their own operational definitions) shall:</p> <p>a. Ensure that the operators of such vessels, while in the Convention Area, are required to employ or implement at least one of the following three methods to mitigate the capture of sea turtles:</p> <p>i. Use only large circle hooks, which are fishing hooks that are generally circular or oval in shape and originally designed and manufactured so that the point is turned perpendicularly back to the shank. These hooks shall have an offset not to exceed 10 degrees.</p> <p>ii. Use only finfish for bait.</p>

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
	<p>hook not offset more than 10 degrees),</p> <p>ii. Use only finfish for bait, OR</p> <p>iii. Another mitigation measure to reduce sea turtle bycatch that has been approved by the Commission. A proposal for such a measure shall be submitted to the Bycatch Working Group at its meeting in the year prior to desired implementation, for review and potential recommendation to the Scientific Advisory Committee (SAC) and approval of the Commission.</p>	<p>2. CPCs, while operating ICCAT fisheries, shall:</p> <p>a) reduce and eliminate, to the extent practicable, interactions with sea turtles in ICCAT fisheries where encounters with sea turtles have been documented and reported to the SCRS, through the use or continued use of at least one of the following bycatch mitigation measures:</p> <p>i. alternative or new gear types and gear modifications;</p> <p>ii. time-area fishing restrictions and closures based on advice from the SCRS, as appropriate, in instances where there is a higher risk of interaction with sea turtles;</p> <p>iii. effective static net gears' marking allowing their detection by sea turtles (such as the use of net colours, light passive reflectors, thicker twine diameter, corks or other materials within the net); or</p> <p>iv. modifications in fishing behaviour</p>		<p>iii. Use any other measure, mitigation plan or activity that has been reviewed by the Scientific Committee (SC) and the Technical and Compliance Committee (TCC) and approved by the Commission to be capable of reducing the interaction rate (observed numbers per hooks fished) of turtles in shallow-set longline fisheries.</p> <p>b. The requirements of paragraph 7(a) need not be applied to those shallow-set longline fisheries determined by the SC, based on information provided by the relevant CCM, to have minimal observed interaction rates of sea turtles over a three-year period and a level of observer coverage of at least 10% during each of those three years.</p> <p>c. For the purpose of implementing this paragraph (7), establish and enforce their own operational definitions of shallow-set longline fisheries, large circle hooks, and any measures under 7(a)(iii) or adopted by the Commission under paragraph 12, ensuring that they are as enforceable as possible, and report these definitions to the Commission in Part 2 of their annual report.</p>

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SPECIES	IATTC	ICCAT	IOTC	WCPFC
		<p>and strategy (e.g., reduced soaking time, etc.).</p> <p>c) take all reasonable steps to ensure the safe release of sea turtles in a manner that maximizes the likelihood of their survival by requiring that:</p> <p>i. their purse seine and longline vessels, and other types of vessels that use gear that may entangle sea turtles, carry on board de-hookers, line-cutters and basket lifts or dip nets, as appropriate for each gear type and consistent with the “Best practices for sea turtle handling and release” of the <i>FAO Guidelines to reduce sea turtle mortality in fishing operations (2009)</i> (‘the FAO guidelines’);</p> <p>ii. the owners, operators, and crew of such vessels, as well as any on-board observers, use such equipment in line with the safe handling and release practices in the Appendix, and consistent with the <i>FAO Guidelines</i>. In addition, owners, operators and crew should be encouraged to have training in the use of such equipment.</p>		

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SPECIES	IATTC	ICCAT	IOTC	WCPFC
Sea birds	<p>Res. C-11-02</p> <p>2. CPCs shall require their longline vessels of more than 20 meters length overall that use hydraulic, mechanical, or electrical systems and that fish for species covered by the IATTC in the EPO north of 23°N (except in Mexican waters as described in the minutes of the 81st meeting of the IATTC and as shown on the map in Annex 1) and south of 30°S, plus the area bounded by the coastline at 2°N, west to 2°N-95°W, south to 15°S-95°W, east to 15°S-85°W, and south to 30°S (see Annex 1) to use at least two of the mitigation measures in Table 1 (see next page), including at least one from</p>	<p>d) require their fishermen on vessels targeting species covered by the Convention to bring aboard, if practicable, any captured sea turtle that is comatose or inactive as soon as possible and foster its recovery, including giving it resuscitation in accordance with the Appendix, before returning it to the water;</p> <p>Rec. 11-09</p> <p>3. In the area south of 25 degrees South latitude, CPCs shall ensure that all longline vessels use at least two of the mitigation measures in Table 1 (Note: Night setting with minimum deck lighting; Bird-scaring lines (Tori lines); and Line weighting). These measures should also be considered for implementation in other areas, as appropriate, consistent with scientific advice.</p> <p>5. Mitigation measures used pursuant to paragraph 3 shall conform to the minimum technical standards for the measures as shown in Table 1.</p>	<p>Res. 23-07</p> <p>5. In the area south of 25 degrees South latitude, CPCs shall ensure that all longline vessels use at least two of the three mitigation measures in Table 1 (Note: Night setting with minimum deck lighting; Bird-scaring lines (Tori lines); or Line weighting) or, alternatively, use hook-shielding devices as a stand-alone measure. These measures should also be considered for implementation in other areas, as appropriate, consistent with scientific advice.</p> <p>6. Mitigation measures used pursuant to paragraph 5 shall conform to the minimum technical standards for these measures, as shown in Table 1.</p>	<p>CMM 2018-03</p> <p><i>South of 30° South</i></p> <p>1. CCMs shall require their longline vessels fishing south of 30°S, to use either</p> <p>a) at least two of these three measures:</p> <p>i). weighted branch lines;</p> <p>ii). night setting;</p> <p>iii). tori lines; or</p> <p>b) hook-shielding devices.</p> <p>See Annex 1 for specifications of these measures.</p> <p><i>25° South -30° South</i></p> <p>2. CCMs shall require their longline vessels fishing in the area 25°S-30°S to</p>

Attachment: Bycatch-related measures taken by tuna-RFMOs as of December 4, 2023

SPECIES	IATTC	ICCAT	IOTC	WCPFC
	<p>Column A. Vessels shall not use the same measure from Column A and Column B.</p> <p>3. CPCs with longline vessels fishing in the EPO other than the area mentioned in paragraph 2, are encouraged to voluntarily employ at least one of the mitigation measures included in Table 1.</p>	<p>6. The design and deployment for bird scaring lines should also meet the additional specifications provided in Annex 1.</p>	<p>7. The design and deployment for bird scaring lines should also meet the additional specifications provided in Annex I.</p>	<p>use one of the following mitigation measures:</p> <ul style="list-style-type: none"> i) weighted branch lines; ii) tori lines; or iii) hook-shielding devices. <p><i>North of 23° North</i></p> <p>6. CCMs shall require their large-scale longline vessels of 24 meters or more in overall length fishing north of 23°N, to use at least two of the mitigation measures in Table 1, including at least one from Column A. CCMs also shall require their small-scale longline vessels less than 24 meters in overall length fishing north of 23°N, to use at least one of the mitigation measures from Column A in Table 1 (see below). See Annex 1 for specifications of these measures.</p> <p><i>Other Areas</i></p> <p>7. In other areas (between 25°S and 23°N), where necessary, CCMs are encouraged to have their longline vessels employ one or more of the seabird mitigation measures listed in Table 1.</p>

IATTC Table 1		WCPFC Table 1	
Column A	Column B	Column A	Column B
Side-setting with bird curtains and weighted branch lines (*1)	<i>Tori</i> line (*2)	Side setting with a bird curtain and weighted branch lines (*1)	<i>Tori</i> line (*2)
Night setting with minimum deck lighting	Weighted branch lines	Night setting with minimum deck lighting	Blue-dyed bait
<i>Tori</i> line	Blue-dyed bait	<i>Tori</i> line	Deep setting line shooter
Weighted branch lines	Deep-setting line shooter	Weighted branch lines	Management of offal discharge
	Underwater setting chute	Hook-shielding devices (*3)	
	Management of offal discharge		

*1: This measure can only be applied in the area north of 23°N until research establishes the utility of this measure in waters south of 30°S. If using side setting with a bird curtain and weighted branch lines from column A this will be counted as two mitigation measures.

*2: If *tori* line is selected from both Column A and Column B this equates to simultaneously using two (i.e. paired) *tori* lines.

*1: If using side setting with a bird curtain and weighted branch lines from Column A, this will be counted as two mitigation measures.

*2: If a *tori* line is selected from both Column A and Column B, this equates to simultaneously using two (i.e. paired) *tori* lines.

*3: Hook-shielding devices can be used as a stand-alone measure.

Appendix

ICCAT measures on shortfin mako

North Atlantic (Rec. 21-09)	South Atlantic (Rec. 22-11)
1. The Contracting Parties and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereinafter referred to as “CPCs”), shall implement a rebuilding programme for North Atlantic shortfin mako shark starting in 2022 to end overfishing immediately and gradually achieve biomass levels sufficient to support maximum sustainable yield (MSY) by 2070 with a probability of a range of between 60 and 70% at least.	1. The Contracting Parties and Cooperating non-Contracting Parties, Entities or Fishing Entities (hereinafter referred to as “CPCs”), shall implement a fishery management plan for South Atlantic shortfin mako shark starting in 2023 to counteract overfishing immediately and gradually achieve biomass levels sufficient to support Maximum Sustainable Yield (MSY). In 2024, following the results of the South Atlantic shortfin mako stock assessment, and upon analysis of the Kobe II strategy matrix provided by the SCRS, CPCs shall agree on a catch level that ensures that the stock is in the green zone

2. Toward that end, the rules set out in this Recommendation shall be applied by CPCs with the aim to reduce total fishing mortality (the sum of any retention, dead discards, and post-release mortality of live discards), to maintain mortality at sustainable levels to rebuild the stock, and to establish a process to determine whether in any given year there is a possibility for retention.

3. CPCs shall implement a prohibition on retaining on board, transshipping and landing, whole or in part, North Atlantic shortfin mako caught in association with ICCAT fisheries in 2022 and 2023 as a first step in rebuilding the stock.

4. The total fishing mortality tonnage associated with the probability level established in paragraph 1 shall be based on the most recent Kobe II strategy matrix provided by the SCRS for North Atlantic shortfin mako (the probability of both $F < F_{MSY}$ and $SSF > SSF_{MSY}$). Following every stock assessment, the SCRS shall update the Kobe II strategy matrix consistent with the objectives established by paragraph 1 for endorsement by the Commission. a) Consistent with the objectives established under paragraph 1 and the 2019 SCRS Kobe II strategy matrix the total fishing mortality for North Atlantic shortfin mako shall be no more than 250 tonnes until new SCRS advice is provided to the Commission.

of the Kobe II strategy matrix with a probability of between 60 and 70% by 2070 (using catch increments of 100 t and time increments of 5 years).

2. Toward that end and pending the results of the 2024 assessment (including the Kobe II strategy matrix), the total fishing mortality (the sum of any retention, dead discards, and post-release mortality of live discards) for South Atlantic shortfin mako shall be no more than the minimum reported annual catch in the last five years of the assessment (i.e., 2,001 t) as set out in the 2019 SCRS Report.

3. CPCs shall implement a maximum retention allowance in 2023 and 2024 of 60% of their average annual catch, as reported to ICCAT between 2012 and 2021. CPCs with average annual catches of more than 500 t will implement a cap on landings of 40% of their average annual catch, as reported to ICCAT between 2012 and 2021. This is expected to allow for a total retention allowance of 1,295 t. The objective being that this retention allowance combined with the sum of estimated dead discards and post release mortality, results in a total mortality that is below the SCRS advice:

<i>CPC</i>	<i>Mean catches 2012-2021 (t)</i>	<i>Retention allowance (t)</i>
Angola	3	2
Belize	26	15
Brazil	347	208
China PR	4	2
Chinese Taipei	101	61
Côte d'Ivoire	29	18
Curaçao	0	0
El Salvador	0	0

European Union	1,258	503
Guatemala	0	0
Japan	103	62
Korea	6	4
Namibia	640	256
Panama	0	0
Senegal	14	8
South Africa	256	154
United Kingdom	0	0
Uruguay	4	2
TOTAL	2,791	1,295

5. Future permissible retention shall be pursuant to the following process:

a) During 2022 and 2023 the SCRS and Panel 4 shall work together to test and confirm the appropriateness of the approach in **Annex 1**, or alternative approaches, for determining the amount of permissible retention of North Atlantic shortfin mako in the future. Any alternative approaches shall take into consideration, among other factors, the relative contributions made by CPCs to conserve, manage, and rebuild the stock (including a CPC's performance in reducing its mortality in line with the objectives of previous ICCAT Recommendations 17-08 and 19-06) and other criteria as set out in Resolution 15-13, as well as the need to continue to incentivize individual CPC accountability to achieve fishing mortality reductions in line with the objectives of this rebuilding program. To assist with this work, the SCRS shall, as appropriate, provide to the Commission estimates of post release mortality and, where needed, estimates of dead discards, taking into account data submitted by CPCs and other relevant information and analyses.

b) Notwithstanding paragraph 3, in 2022, the SCRS will use **Annex 1** to calculate possible retention allowed in 2023 and provide the results to the Commission, which shall then validate the amount of any permissible retention in 2023.

6. Permissible retention shall be pursuant to the following process:

a) Following the stock assessment in 2024 the SCRS shall use the approach in **Annex 1**, or alternative approaches after having their appropriateness confirmed by the SCRS, for determining the amount of permissible retention of South Atlantic shortfin mako in the future. To assist with this work, the SCRS shall, as appropriate, provide to the Commission estimates of post release mortality and, where needed, estimates of dead discards, taking into account data submitted by CPCs and other relevant information and analyses.

c) Starting in 2023 and annually thereafter, the SCRS will use **Annex 1**, unless an alternative approach to calculating future permissible retention is agreed (as per paragraph 5(a)), to calculate a possible level of retention, including eligible CPCs' individual retention allowances, allowed in the subsequent year, and provide the results to the Commission.

d) Starting in 2023 and annually thereafter, the Commission shall validate the amount of permissible retention in the subsequent year, based on advice from the SCRS in accordance with paragraph 5(c).

6. CPCs whose fishing vessels retain North Atlantic shortfin mako shall prohibit transshipping, whole or in part, North Atlantic shortfin mako caught in association with ICCAT fisheries.

7. Any retention permissible in accordance with paragraph 5 shall be allowed only when the fish is dead on haulback and the vessel has an observer or a functioning electronic monitoring system (EMS) on board to verify the condition of the sharks.

a) For vessels of 12 meters or less, no more than one specimen of North Atlantic shortfin mako shall be retained by a vessel for any fishing trip.

b) For the purposes of this paragraph, a fishing trip is defined as the time period that begins when a fishing vessel departs from a dock, berth, beach, seawall, ramp, or port to carry out fishing operations and that terminates with a return to a dock, berth, beach, seawall, ramp, or port.

9. Upon entry into force of this Recommendation, CPCs shall require vessels flying their flag to implement, while giving due consideration to the safety of the crew, the minimum standards for safe handling and release procedures of North Atlantic shortfin mako shark, as provided under **Annex 2** of this Recommendation, in order to promptly release

b) Starting in 2024 and annually thereafter, the SCRS will use **Annex 1** to calculate a possible level of retention, including eligible CPCs' individual retention allowances, allowed in the subsequent year, and provide the results to the Commission.

c) Starting in 2024 and annually thereafter, the Commission shall validate the amount of permissible retention in the subsequent year, based on advice from the SCRS in accordance with paragraph 6 b).

7. CPCs whose fishing vessels retain South Atlantic shortfin mako shall prohibit transshipping, whole or in part, South Atlantic shortfin mako caught in association with ICCAT fisheries.

8. From 1 January 2025, any retention permissible shall be allowed only when the fish is dead on haulback, and the vessel has an observer or a functioning electronic monitoring system (EMS) on board to verify the condition of the sharks.

a) For vessels of 12 meters or less, no more than one specimen of South Atlantic shortfin mako shall be retained by a vessel for any fishing trip.

b) For the purposes of this paragraph, a fishing trip is defined as the time period that begins when a fishing vessel departs from a dock, berth, beach, seawall, ramp, or port to carry out fishing operations and that terminates with a return to a dock, berth, beach, seawall, ramp, or port.

9. Upon entry into force of this Recommendation, CPCs shall require vessels flying their flag to implement, while giving due consideration to the safety of the crew, the minimum standards for safe handling and release procedures of South Atlantic shortfin mako shark,

unharmful, to the extent practicable, and to improve survivability of live North Atlantic shortfin mako shark when brought alongside the vessel. Revisions to **Annex 2** may be considered by the Commission as new information from the SCRS becomes available.

12. Any retention by a CPC in excess of its retention allowance calculated in paragraph 5 will result in a reduction of that CPC's allowance the following year by an amount equal to the excess. Retention by that CPC shall be prohibited until any overages are repaid in full.

as provided under **Annex 2** of this Recommendation, in order to promptly release unharmful, to the extent practicable, and to improve survivability of live South Atlantic shortfin mako shark when brought alongside the vessel. Revisions to **Annex 2** may be considered by the Commission as new information from the SCRS becomes available.

12. Any retention by a CPC in excess of its retention allowance as established for 2023 and 2024, and for subsequent years, as calculated in paragraph 6, will result in a reduction of that CPC's allowance the following year by an amount equal to the excess. Retention by that CPC shall be prohibited until any overages are repaid in full. Transfers of underages by CPCs to future years shall not be permissible.