



CCSBT-CC/1810/21 (Rev1)

Review of the CCSBT ERS Recommendation

Purpose

To provide a desktop review of the implementation of the CCSBT's ERS Recommendation¹ for consideration by the Compliance Committee and Extended Commission.

Summary

Overall, with relatively few exceptions, Members' responses to a questionnaire on the implementation of CCSBT's ERS Recommendation, indicate that Members have complied well with implementing the ERS Recommendation. In other words, Members have largely implemented the relevant international plans of actions for seabirds and sharks and FAO's sea turtle guidelines and have implemented domestic requirements to follow the measures of IOTC², WCPFC³ and ICCAT⁴ relating to Ecologically Related Species (ERS). Most Members have also complied well with CCSBT's ERS data reporting requirements and have reported annually to the Compliance Committee on the action they have taken pursuant to paragraphs 1, 2 and 3 of the ERS Recommendation.

Despite the high level of reported compliance by Members in implementing domestic requirements to follow the ERS measures of the other tuna RFMO's, it must be noted that this review provides no information on the degree to which Members' fishing fleets are actually complying with these requirements. This is a major limitation of this review.

The ERS Recommendation authorises the Secretariat to collect and exchange relevant ERS data with the Secretariats of the IOTC, WCPFC and ICCAT. However, no sharing has occurred to date. This is largely due to CCSBT's confidentiality rules that has effectively prevented the sharing of these data. However, these rules were revised in October 2017 and the Secretariat intends to make some of the CCSBT's ERS data public in late 2018.

The ERS Recommendation tasked the Extended Commission with reviewing the operation of the Recommendation with a view to enhancing the protection of ecologically related species from the impacts of fishing for southern bluefin tuna. While the present paper is the first full review of the operation of the ERS Recommendation by the CCSBT, the Extended Commission has held numerous discussions on ERS matters with a view to enhancing the protection of ERS. Progress has been made in several areas, including: Expanding the geographical scope of the ERS Recommendation; Improving the collection and provision of ERS data; Providing some direction to the ERS Working Group; and Implementing Minimum Performance Requirements for measures relating to ERS. However, there has been

¹ Recommendation to Mitigate the Impact on Ecologically Related Species of Fishing for Southern Bluefin Tuna (Attachment A).

² Indian Ocean Tuna Commission.

³ Western and Central Pacific Fisheries Commission.

⁴ International Commission for the Conservation of Atlantic Tunas.

no consensus within the CCSBT to introduce additional protection for ERS outside those imposed by the area-based tuna RFMOs referred to in the ERS Recommendation.

Finally, the ERS Recommendation tasks the CCSBT with undertaking an assessment of the risks to ecologically related species posed by fishing for southern bluefin tuna and requires the Extended Commission to consider how these risks are mitigated by the adoption of measures by IOTC, WCPFC and ICCAT, and to consider whether any additional measures to mitigate risk are required. The CCSBT's Ecologically Related Species Working Group (ERSWG) has conducted a seabird ecological risk assessment and has provided mitigation advice to the Extended Commission. However, the Extended Commission has not acted on the ERSWG's main recommendations with respect to seabird mitigation measures.

Background

At CCSBT 24, the Extended Commission (EC) agreed that the Secretariat would conduct a desktop review of the implementation of the CCSBT's *Recommendation to Mitigate the Impact on Ecologically Related Species of Fishing for Southern Bluefin Tuna* (ERS Recommendation), which could also involve sending questionnaires to Members to complete. CCSBT 24 also requested the Secretariat to compile the results of the questionnaire for presentation to the EC through the CC. A copy of the ERS Recommendation is provided at **Attachment A**.

The Secretariat presented a draft questionnaire to the March 2018 meeting of the CCSBT's Strategy and Fisheries Management Working Group (SFMWG). The questionnaire focused on paragraphs 1, 2 and part of paragraph 3 of the ERS Recommendation. It had two sections. The first section related to implementation of International Plans of Actions for seabirds and sharks, and the FAO Guidelines to reduce sea turtle mortality. The second section sought to determine the extent to which Members have implemented each relevant requirement of each relevant ecologically related species (ERS) measure of IOTC, ICCAT and WCPFC.

The SFMWG agreed that the following changes should be made to the questionnaire before it was sent to Members for completion:

- Tuna RFMO requirements of a non-binding nature (e.g. requirements worded with "should" or "shall, where practical" etc.) would be presented in grey and provision of responses for these non-binding requirements would be voluntary;
- The date of implementation of requirements in section 2 of the questionnaire would be removed; and
- The questionnaire would no longer include a request for information concerning Member's domestic instruments for implementing requirements;
- Some strong views were expressed regarding the need to consider compliance with requirements. However, there was no consensus to retain the questions in the questionnaire in relation to the estimated percentage compliance with requirements, the level of confidence in the compliance estimate, or the outcome of compliance evaluation by the relevant RFMO. Consequently, the SFMWG noted that these questions would not be included in the questionnaire.

The SFMWG also agreed that the questionnaire should not be conducted on an annual basis and that it should be either a once off or an infrequent survey.

The modified questionnaire was sent to Members on 20 March 2018 (CCSBT Circular #2018/011) with a requested response date of 31 May 2018. Responses were received from all Members by 10 July 2018.

Review of the ERS Recommendation

This review of the operation of the ERS Recommendation involved a lengthy questionnaire, which all CCSBT Members have responded to, together with examination of material held by the CCSBT including data and annual reports submitted by Members, and reports of CCSBT meetings. The lengthy and somewhat complex questionnaire gives rise to the possibility of mistakes by Members when completing the questionnaire and in the Secretariat's analysis of the completed questionnaires. If mistakes are noticed in either the Member responses or the Secretariat's analysis, the Secretariat is happy to accept updated survey responses and correct any of its or Member's mistakes in an update of this review.

The CCSBT's ERS Recommendation contains 7 paragraphs. This review considers the ERS Recommendation on a paragraph by paragraph basis

(1) PARAGRAPH 1 OF THE ERS RECOMMENDATION

This paragraph states that:

“Members and Cooperating Non-Members will, to the extent possible, implement the International Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries (IPOA-Seabirds), the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks), and the FAO Guidelines to reduce sea turtle mortality in fishing operations (FAO-Sea turtles), if they have not already done so.”

Tables 1-3 of **Attachment B** provides tabulated results from the questionnaire in relation to the IPOA-Seabirds, IPOA-Sharks, and the FAO-Sea turtles respectively.

Overall, the reported performance of Members in relation to paragraph 1 of the ERS Recommendation was good. In particular:

- Seven of the eight Members have adopted a NPOA-Seabirds. The other Member is currently developing a NPOA-Seabirds. In addition, all Members that have adopted a NPOA-Seabirds, consider that their NPOA-Seabirds meets requirements of CCSBT's ERS Recommendation⁵.
- All Members have adopted a NPOA-Sharks. In addition, seven of the eight Members that have adopted a NPOA-Sharks, consider that their NPOA-Sharks meets requirements of CCSBT's ERS Recommendation⁵. The only exception is due to one Member translating the management requirements of RFMOs into domestic regulations instead of updating its NPOA-Sharks.
- All Members consider that they have implemented FAO-Sea turtles in an appropriate manner. All Members have implemented FAO Best practices for sea turtle handling and release, and they are encouraging or requiring use of modified fishing gear designs and fishing methods. Furthermore, seven of the eight Members have reported that their SBT fleets rarely interact with sea turtles (as opposed to common, infrequent or unknown interactions), with the other Member reporting infrequent interactions.

⁵ Which in turn means the mitigation requirements of IOTC, ICCAT and WCPFC when fishing in those Convention Areas.

Less positive outcomes are that:

- Five Members have exceeded or are very close to the review timeframe (every 4 years) for their NPOA-Seabirds. Only 2 of these 5 Members have indicated that they have a review in-progress.
- Four Members are overdue with respect to the review timeframe (every 4 years) for their NPOA-Sharks and two others are due for a review next year. None of these Members have indicated that they have a review in-progress or planned.
- Only three Members have reported progress of the assessment, development and implementation of their NPOA-Seabirds and NPOA-Sharks in the most recent biennial reporting to FAO on the Code of Conduct for Responsible Fisheries.
- Only three Members have reported progress of the implementation of FAO technical guidelines in the most recent biennial reporting to FAO on the Code of Conduct for Responsible Fisheries and/or other relevant bodies such as regional sea turtle conservation and management organisations. However, one of these Members commented that the 2017 FAO reporting template did not seek this information.

It is noted that no Members are using sea turtle bycatch hotspot avoidance measures (e.g. time-area closures). However, as all but one Members have reported that their SBT fleets rarely interact with sea turtles (and the one Member has infrequent interactions), hotspot avoidance measures may not be appropriate.

It is also noted that, with one exception, Members' NPOA-Seabirds and NPOA-Sharks do not contain additional measures to those that are considered in CCSBT's ERS Recommendation.

(2) PARAGRAPH 2 OF THE ERS RECOMMENDATION

This paragraph states that:

“Members and Cooperating Non-Members will comply with all current binding and recommendatory measures aimed at the protection of ecologically related species, including seabirds, sea turtles and sharks, from fishing, which are adopted from time to time:

- a) by the Indian Ocean Tuna Commission, when fishing in its Convention area,*
- b) by the Western and Central Pacific Fisheries Commission, when fishing in its Convention area, and*
- c) by the International Commission for the Conservation of Atlantic Tunas, when fishing in its Convention area*

irrespective of whether the Member or Cooperating Non-Member concerned is a member of the relevant Commission or otherwise cooperates with it.”

It should be noted that half of CCSBT's Members are not Members of all of the above tuna RFMOs. Furthermore, the ERS questionnaire indicates that some CCSBT Members are not catching SBT in one of the tuna RFMO Convention Areas that they are a Member of (i.e. Indonesia, Korea and Taiwan have reported that they are not fishing for SBT in the WCPFC Convention Area). The Convention Areas that the ERS questionnaire indicates that each Member is fishing for SBT are as follows:

- IOTC: Australia, European Union⁶, Indonesia, Japan, Korea, Taiwan, South Africa.

⁶ European Union vessels are forbidden from targeting SBT, but some EU Longliners fishing in the Southern Ocean (ICCAT, IOTC and WCPFC areas) that are in the CCSBT Record of Authorised could have a minor SBT bycatch. The EU's responses to the questionnaire refers to these longliners.

- ICCAT: European Union⁶, Japan, Korea, Taiwan, South Africa.
- WCPFC: Australia, European Union⁶, Japan, New Zealand.

References to “Members”, “all Members”, “most Members” and similar expressions below are references to the Members for which the requirements are relevant, which for example, is four Members in the case of the WCPFC Convention Area.

Tables 4-31 of **Attachment B** provides tabulated results from the questionnaire with respect to paragraph 2 of the ERS Recommendation. These results are separately summarised below for seabirds, sharks, turtles, cetaceans and driftnets. Please see section 2.1 of **Attachment B** for a key to the content of the tables.

In accordance with the SFMWG 5 agreement in relation to the questionnaire, Members were not required to respond to voluntary ERS requirements and so the level of response in the questionnaire to these requirements was variable both between and within Members, making it difficult to draw overall conclusions. Consequently, this review does not comment on results related to voluntary requirements. Nevertheless, these responses are available in **Attachment B**.

For the purpose of this review, requirements of Resolutions/Recommendations/CMMs⁷ are considered to be either a requirement for the Member itself, or a requirement for the Member’s fleet. These are referred to as “Member Requirements” and “Fleet Requirements” respectively.

Seabirds

Responses to the seabird components of the questionnaire are provided at Tables 4-7 of **Attachment B**.

All Members have reported that they have implemented the mandatory Fleet Requirements of the relevant RFMOs as mandatory requirements for their own fleets⁸.

With two exceptions, all Members have also reported that they have implemented all mandatory Member Requirements⁹ of the relevant RFMOs. The two exceptions were:

- One Member has only partially implemented paragraph 1 of IOTC Resolution 12/06 (Table 4) in relation to recording data on seabird incidental bycatch by species because its domestic observer programme is in its initiation phase.
- One Member did not respond as to whether it has implemented paragraph 3 of the same Resolution, which is providing to the IOTC Commission as part of their annual reports, information on how they are implementing this measure.

Sharks

Responses to the general (non-specific) shark components of the questionnaire are provided at Tables 8-12 of **Attachment B**.

With two exceptions, Members have responded that they have implemented all the mandatory Member Requirements of the general shark measures. The two exceptions

⁷ Conservation and Management Measures.

⁸ Requirements that Members have implemented as mandatory requirements for their fleets are shown as red highlighted cells within the tables.

⁹ Member requirements are shown as black highlighted cells within the tables.

relate to shark research requirements in the IOTC Convention Area. One Member has reported that it is not conducting the specified research. The other Member did not respond with a “Y” or “N” to this requirement but noted that its “research institutes conduct currently several research studies to protect sharks.”

With five exceptions, Members have reported that they have implemented the mandatory Fleet Requirements of the relevant RFMOs as mandatory requirements for their own fleets¹⁰. The exceptions are:

- One Member does not have a mandatory requirement that fishers are aware of and use identification guides and handling practises in the IOTC area. Nevertheless, this Member has noted that “*Some identification cards were distributed through scientific observers, and expected more in the future.*”
- Two Members have reported that they have not implemented the requirement at paragraph 5 of IOTC Resolution 17/05 that “... *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*” and one Member has indicated that this requirement is not applicable. However, this requirement is specified as being “*Without prejudice to paragraph 3*” of the same Resolution, consequently as these Members have implemented paragraph 3, there is not a requirement for them to implement paragraph 5.
- One Member has reported that the IOTC requirement “*CPCs shall prohibit the purchase, offer for sale and sale of shark fins which have been removed on-board, retained on-board, transhipped or landed, in contravention to this Resolution.*” is not applicable without indicating why it is not applicable.

Responses to measures for oceanic whitetip (IOTC, ICCAT, WCPFC), thresher sharks (IOTC, ICCAT), silky sharks (ICCAT, WCPFC), Whale sharks (IOTC), Atlantic shortfin mako (ICCAT), hammerheads (ICCAT), porbeagle (ICCAT) and Atlantic blue shark (ICCAT) are shown at tables 13-15, 16-17, 18-19, 20, 21-22, 23, 24 and 25 respectively. For these species, with five exceptions, all Members have reported that they have implemented the mandatory Fleet Requirements of the relevant RFMOs as mandatory requirements for their own fleets and that they have also implemented the mandatory Member Requirements¹¹. The five exceptions are:

- For thresher sharks in the IOTC Convention Area (Table 16), two Members indicated that they have not implemented the requirements in relation to recreational and sport fishing and one Member has indicated that it has only partially implemented this requirement noting that interactions with thresher sharks are extremely rare and that most recreational activity is limited to capture/tag and release;
- For whale sharks in the IOTC Convention Area (Table 20), one Member has adopted the FAD designs required in item 5 of that measure, but not on a mandatory basis. However, FADs are not used for SBT fishing, so this measure is not applicable.
- For Atlantic blue sharks in the ICCAT Convention Area (Table 25), one Member responded that this is not applicable noting that “This measures only applies to the North Atlantic Blue Shark and therefore is not relevant here.” However, the Secretariat’s understanding is that this measure applies to both the North and South Atlantic blue shark stocks.

¹⁰ Two Members have noted that some shark fin measures are not applicable because their vessels apply a “fins naturally attached policy” or require all sharks to be landed with fins attached to the carcass.

¹¹ In some cases, a Member has responded that a requirement has not been implemented or was not applicable together with a comment. In situations where the comment indicated that the Member did not use the relevant gear or does not catch the relevant species etc., the requirement has been considered as being fulfilled.

Sea Turtles

Responses to the sea turtle measures in the questionnaire are provided at Tables 26-28 of **Attachment B**.

With eight exceptions, all Members have reported that they have implemented the mandatory Fleet Requirements of the relevant RFMOs as mandatory requirements for their own fleets and that they have also implemented the mandatory Member Requirements. The eight exceptions are:

- One Member:
 - Indicated that it did not report to the IOTC Scientific Committee regarding information on successful mitigation measures and other impacts on marine turtles in the IOTC area (paragraph 4, Table 26); and
 - Did not respond as to whether its annual reports to ICCAT includes information required on the implementation of the Recommendation, focusing on paragraphs 1, 2, and 5 of that recommendation (paragraph 6, Table 27).
- One Member advised that it did not impose the following requirements as mandatory requirements, although it has reported to have implemented these requirements in a non-mandatory manner:
 - The IOTC requirement at paragraph 8a of Table 26, which requires longline vessels to carry line cutters and de-hookers and follow certain handling and release guidelines.
 - The IOTC requirement at paragraph 9a(iv) of Table 26, for purse seiners to carry and employ dip nets, when appropriate, to handle marine turtles. However, the Secretariat understands that this Member does not use purse seiners to catch SBT, so this requirement is not applicable.
 - The WCPFC requirements at paragraphs 5a(iii) and 5a(iv)-5d of Table 28 for purse seine vessels in relation to stopping net roll as soon as the turtle comes out of the water, carrying and employment of dip nets, recording and reporting of incidents and providing the Commission with the results of FAD design research for reducing entanglement. However, the Secretariat understands that this Member does not use purse seiners to catch SBT, so this requirement is not applicable.
 - The WCPFC requirement at paragraph 6 of Table 28 for longliners to carry and use line cutters and de-hookers and follow certain handling and release guidelines.
- One Member reported that it has not implemented the IOTC requirement for its purse seiners to carry and employ dip nets, when appropriate, to handle marine turtles (paragraph 9a(iv), Table 26).

Cetaceans

Responses to the cetacean measures in the questionnaire are provided at Table 29 of **Attachment B**.

With two exceptions, all relevant¹² Members have reported that they have implemented the mandatory Fleet Requirements of the relevant RFMO (IOTC) as mandatory requirements for their own fleets and that they have also implemented the mandatory

¹² Two Members responded with “not applicable” or provided no response because they have no purse seiners in the relevant area.

Member Requirements. The exceptions are two Members that reported that they either did not adopt the specified Fish Aggregating Device designs or adopted the designs in a non-mandatory manner. However, in its response in a previous table, one Member stated that it “does not apply Drifting FAD” and the Secretariat understands that the other Member does not use FADs for catching SBT. Hence this requirement does not apply to either Member.

Driftnets

Responses to the measures in the questionnaire on prohibition of large scale driftnets are provided at Tables 30-31 of **Attachment B**. With one exception all Members have reported that these measures are not applicable or that they have implemented the mandatory Fleet Requirements of the relevant RFMOs as mandatory requirements for their own fleets and that they have also implemented the mandatory Member Requirements. The one exception is that one Member responded that it did not implement the WCPFC requirement that “CCMs shall include in Part 2 of their Annual Reports a summary of monitoring, control, and surveillance actions related to large-scale driftnet fishing on the high seas in the Convention Area”.

It should also be noted that as of October 2016, the CCSBT has its own measure that prohibits the use of large-scale driftnets on the high seas in a manner which can reasonably be expected to result in the catching, taking or harvesting of southern bluefin tuna.

As indicated above, the overall reported implementation of the mandatory ERS measures of IOTC, ICCAT and WCPFC by CCSBT Members has been good. However, a major flaw to the questionnaire is that it did not collect information on the compliance of Members’ fleets with respect to these ERS measures. Without this information it is not possible to evaluate whether or not the implementation of these measures has been effective.

(3) PARAGRAPH 3 OF THE ERS RECOMMENDATION

This paragraph states that:

“Members and Cooperating Non-Members will collect and report data on ecologically related species to the Extended Commission and/or its subsidiary bodies as appropriate, including the Ecologically Related Species Working Group. Further, the undertaking described in paragraph 2 will include a commitment to comply with measures adopted by the Indian Ocean Tuna Commission, the Western and Central Pacific Fisheries Commission and the International Commission for the Conservation of Atlantic Tunas on the collection and reporting of data in relation to ecologically related species. Data confidentiality shall be protected under the rules that apply in those Commissions.”

The main ERS data that Members are required to provide to the CCSBT are the data specified in the annual [ERSWG Data Exchange](#), which are required to be provided by 31 July each year. The table below shows Members compliance with the ERSWG Data Exchange for the last two years.

	AU	EU	ID	JP	KR	NZ	TW	ZA
Data provided as required by the ERSWG Data Exchange in 2017?	Y	Y	N	Y	Y	Y	Y	Y
Data provided as required by the ERSWG Data Exchange in 2018?	Y	Y	P ¹³	Y	Y	Y	Y	Y
Data provided at species level where this is not required for the ERSWG Data Exchange (voluntary)?	P ¹⁴	- ¹⁵	Y	N	Y	Y	Y	Y

Most Members have complied with the ERSWG Data Exchange requirements and more than half have gone beyond the minimum requirements and have provided ERS data at a species level of resolution in cases where they were not required to do so.

Members are also required to submit data similar to the above in national reports to meetings of the ERSWG and to annual meetings of the Compliance Committee and Extended Commission. However, these data are essentially the same as the ERSWG Data Exchange requirements or a subset of this information, so are not examined separately in this paper.

Results of the Questionnaire in tables 4 to 32 of **Attachment B** relating to reporting of data, indicates that CCSBT Members consider that they are complying with the vast majority of ERS data reporting requirements of IOTC, ICCAT and WCPFC. The few exceptions to this are:

- One Member considered that it had only partially implemented the requirement of IOTC Resolution 12/06 (Table 4 of **Attachment B**) related to recording “*data on seabird incidental bycatch by species, notably through scientific observers in accordance with Resolution 11/04 and report these annually*”. This is because it has a partially effective observer program in its initiation phase to improve monitoring of local longline vessels.
- One Member considered that ICCAT Recommendation 2016-12 (Table 25 of **Attachment B**) only applied to North Atlantic Blue Shark and therefore marked its responses as not applicable. However, as mentioned previously, the Secretariat’s understanding is that this measure applies to both the North and South Atlantic blue shark stocks. Consequently, it is not known if this Member is complying with the data requirements of this measure.
- One Member responded that it has not implemented a mandatory obligation for WCPFC CMM 2008-03 (Table 28 of **Attachment B**) to require that operators of purse seine vessels “*record all incidents involving sea turtles during fishing operations and report such incidents to the appropriate authorities of the CCM*” and provide the results of this reporting to the Commission.

(4) PARAGRAPH 4 OF THE ERS RECOMMENDATION

This paragraph states that:

“Members and Cooperating Non-Members will report annually to the Compliance Committee of the Extended Commission on the action they have taken

¹³ Indonesia is working on improving its ERS data. It has not provided its total fishing effort and has commented that it needs more time to verify its figures for this. In addition, Indonesia was not able to provide the proportions of observed effort with specific mitigation measures.

¹⁴ Australia’s data contains a mixture of species and group level reporting.

¹⁵ The ERSWG Data Exchange is defined as being for “shots/sets where SBT was either targeted or caught”. The European Union has reported no catch of SBT in the last two years, so there is no relevant data for it to submit to the ERSWG Data Exchange.

pursuant to paragraphs 1, 2 and 3 of this recommendation.”

Section III(a) of the template for the Annual Report to the Compliance Committee (CC) and the Extended Commission (EC) requires Members to report on these three paragraphs of the ERS Recommendation. A tabulated summary of information provided by Members’ in the reporting template for the October 2017 CC and EC meetings, together with a comment on whether Members have complied with the requirements of the template is provided below. Overall, with minor exceptions, the information provided by Members’ have complied with the requirements of the reporting template.

- i. The Annual Report Template, requires Members to “Specify whether each of the following plans/guidelines have been implemented, and if not, specify the action that has been taken towards implementing each of these plans/guidelines:-
- *International Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries:*
 - *International Plan of Action for the Conservation and Management of Sharks:*
 - *FAO Guidelines to reduce sea turtle mortality in fishing operations:”*

The summary of Member responses is as follows (Y=Yes, D=Under development, X=Information not provided as required):

	AU	EU	ID	JP	KR	NZ	TW	ZA
IPOA-Seabirds has been implemented?	D ¹⁶	Y	X ¹⁷	Y	Y	Y	Y	Y
IPOA-Sharks has been implemented?	Y	Y	Y	Y	Y	Y	Y	Y
FAO-Sea turtles has been implemented?	Y	Y	D ¹⁸	Y	Y	Y	Y	Y

Only one Member has not provided all the information required by the annual report template in relation to the first paragraph of the ERS Recommendation. However, according to its response to the ERS Questionnaire, Indonesia implemented an NPOA-Seabirds in 2016, which suggests that its annual report had not been updated for this item.

- ii. The Annual Report Template, requires Members to “Specify whether all current binding and recommendatory measures aimed at the protection of ecologically related species from fishing of the following tuna RFMOs are being complied with. If not, specify which measures are not being complied with and the progress that is being made towards compliance:-
- *IOTC, when fishing within IOTC’s Convention Area:*
 - *WCPFC, when fishing within WCPFC’s Convention Area:*
 - *ICCAT, when fishing within ICCAT’s Convention Area:”*

The summary of Member responses is as follows (Y=Yes, P=Partial, ?=Uncertain):

	AU	EU	ID	JP	KR	NZ	TW	ZA
ERS measures of the relevant tRFMOs are being complied with?	Y	Y	Y? ¹⁹	Y	Y	Y	Y	P ²⁰

¹⁶ “Australian commented that it has endorsed the IPOA-Seabirds and has put in place the Threat Abatement Plan 2014 for the Incidental Catch (or bycatch) of Seabirds During Oceanic Longline Fishing Operations (2014 TAP).”

¹⁷ The only information provided was “During 2015, there was no interaction between longliner and seabird in observed longline fisheries”. The same response was provided in Indonesia’s annual report in the previous year.

¹⁸ Indonesia advised that “NPOA of Sea Turtle is being in the process of finalisation”, which is the same response as for the previous annual report.

¹⁹ Indonesia responded with “NONE”. It is assumed that this means that there were no measures that are not being complied with as opposed to there being no compliance with any of the measures, but this is not clear.

²⁰ South Africa noted that the contract of its national observer programme expired in March 2011 and that there have been unsuccessful attempts to revive the program. It “has initiated a process of ensuring the continuation and maintenance of the observer coverage by introducing measures for the introduction of the industry funded programme in order to meet the 5%

All Members appear to be providing the information requested by the annual report template in relation to the second paragraph of the ERS Recommendation. There is uncertainty in relation to the meaning of Indonesia’s response in its annual report, but its responses to the ERS Questionnaire indicate that it is largely complying with the relevant RFMOs’ ERS measures.

iii. The Annual Report Template, requires Members to “Specify whether data is being collected and reported on ecologically related species in accordance with the requirements of the following tuna RFMOs. If data are not being collected and reported in accordance with these requirements, specify which measures are not being complied with and the progress that is being made towards compliance:-

- CCSBT:
- IOTC, for fishing within IOTC’s Convention Area:
- WCPFC, for fishing within WCPFC’s Convention Area:
- ICCAT, for fishing within ICCAT’s Convention Area:”

The summary of Member responses is as follows (Y=Yes, N=No, ?=Uncertain):

	AU	EU	ID	JP	KR	NZ	TW	ZA
Data is being collected and reported on ecologically related species in accordance with the requirements of the relevant tuna RFMOs?	Y ²¹	Y	N ²²	Y	Y	Y	Y	Y

All Members appear to be fulfilling the information requested by the annual report template in relation to the third paragraph of the ERS Recommendation (as opposed to meeting the data collection and provision aspects of the ERS Recommendation).

(5) PARAGRAPH 5 OF THE ERS RECOMMENDATION

This paragraph states that:

“The Secretariat of the CCSBT is authorised to collect and exchange relevant data concerning ecologically related species with the Secretariat of the Indian Ocean Tuna Commission, the Secretariat of the Western and Central Pacific Fisheries Commission and the Secretariat of the International Commission for the Conservation of Atlantic Tunas.”

With the exception of publicly available meeting documents submitted to ERSWG meetings, there has been no sharing of ERS data from the CCSBT to IOTC, WCPFC or ICCAT. However, this is expected to change in late 2018 or early 2019 because of a change in CCSBT’s [Data Confidentiality Rules](#) regarding ERS data.

Until October 2017, the CCSBT’s [Data Confidentiality Rules](#) classified the data provided in accordance with the ERSWG Data Exchange as “Medium Risk”. This meant that these data

observer coverage as specified by IOTC on the domestic longline vessels, whilst in the process re-establishing the national observer programme by developing the specifications for the tender.”

²¹ Australia noted that it collects data on ERS and reports these on an annual basis to the scientific committees of IOTC, WCPFC and CCSBT. Australia’s national reports to meetings of the scientific committees of IOTC and WCPFC provide full details on Australia’s efforts to mitigate the impact of fishing for SBT on ERS

²² Indonesia noted that it is not yet complying with CCSBT’s ERS Recommendation or IOTC’s resolution 2011/04, but that progress is being made “to enhance personal capacity of observer and increase coverage level of observer program, as well as strengthening collaboration with Indonesia Tuna Association”. For WCPFC and ICCAT, Indonesia stated “NONE”. It is assumed that this means that there were no data requirements that are not being complied with as opposed to there being no provision of data, but this is not clear.

were not publicly available and could not be released without specific authorisation from each of the providers of the data, and also required confidentiality agreements to be signed by the receivers of the data with each of the providers of the data.

At the October 2017 annual meeting, the Extended Commission agreed to define two sets of ERSWG data and assign them with different risk classifications. These are:

- “Aggregated effort and scientific observer data (as specified in the [ERSWG Data Exchange](#)) by calendar year, gear, CCSBT Statistical Area and species group.”; and
- “Aggregated effort and scientific observer data (as specified in the [ERSWG Data Exchange](#)) by Flag State/Entity, calendar year, gear, CCSBT Statistical Area and species (or species group).”

The Extended Commission assigned a “No risk” category to the first of these datasets, which means that these data are now publicly available. The Secretariat plans to make these data available through the public area of its website in late 2018 (after CCSBT 25).

The Extended Commission assigned a “Low risk” category to the second of these datasets. This means that these data are still not publicly available, but unless stated otherwise, they are available to all Members and CNMs without specific approval. Low risk data may also be shared with other RFMOs subject to paragraph 22²³ of the CCSBT’s [Data Confidentiality Rules](#). The Secretariat has provided access to these data to CCSBT Members via the private area of the website. Previously these data were only accessible by individuals that had been approved by the individual providers of the data and that had signed confidentiality agreements with those providers of the data.

(6) PARAGRAPH 6 OF THE ERS RECOMMENDATION

This paragraph states that:

“The Extended Commission will review the operation of this Recommendation with a view to enhancing the protection of ecologically related species from the impacts of fishing for southern bluefin tuna”

The current paper is the first full review of the operation of the ERS Recommendation by the CCSBT. However, since the original adoption of the ERS Recommendation in 2008, the Extended Commission has held numerous discussions on ERS matters with a view to enhancing the protection of ecologically related species from the impacts of fishing for southern bluefin tuna. Progress has been made in several areas, including: Expanding the geographical scope of the ERS Recommendation; Improving the collection and provision of ERS data; Providing some direction to the ERS Working Group; and Implementing Minimum Performance Requirements for measures relating to ERS. However, there has been no consensus within the CCSBT to introduce additional protection for ERS or to implement binding measures outside those imposed by the area-based tuna RFMOs referred to in the ERS Recommendation. Nevertheless, further discussions on binding measures are scheduled to occur at CCSBT 25 (October 2018).

Action taken and considered by the CCSBT since 2008 include:

²³ Which permits data sharing agreements with other RFMOs on the conditions of reciprocal sharing of equivalent data and maintaining the data in a manner consistent with the CCSBT Data Security Standards.

- CCSBT 16 (2009) agreed that Members should include in their National Reports, a table of observed ERS interactions including mortalities, and methods of scaling to produce estimates of total mortality, in the same format as presented in Attachment 4 of the ERSWG8 Report.
- CCSBT 18 (2011) agreed that:
 - The CCSBT's 2008 ERS Recommendation would be revised to include a requirement to comply with ICCAT's measures when fishing in ICCAT's Convention Area;
 - As part of its work, the ERSWG should evaluate the effectiveness of the ERS measures of other tuna RFMOs and the risk to ERS of fishing for SBT;
 - CCSBT should remain active in the Joint Tuna RFMO Bycatch Technical Working Group; and
 - The ERS Working Group would be requested at its next meeting to assess the risks to ERS posed by fishing for SBT, and mitigation of these risks.
- CCSBT 19 (2012):
 - Discussed the possibility of converting the ERS Recommendation to a binding Resolution, but did not achieve consensus;
 - Endorsed a recommendation by the ERSWG that the ERSWG approach other RFMOs with its offer to lead global work on assessments of impacts of fishing for tunas on seabirds and porbeagle sharks; and
 - Adopted requirements for an ERSWG Data Exchange.
- CCSBT 20 (2013): Agreed on the Terms of Reference for an "Effectiveness of Seabird Mitigation Measures Technical Group".
- CCSBT 21 (2014): Discussed a binding measure for mitigating the impact on seabirds of fishing for southern bluefin tuna but did not achieve consensus.
- CCSBT 22 (2015):
 - Adopted revised Scientific Observer Program Standards recommended by the ERSWG;
 - Approved the signing of an MoU between CCSBT and ACAP;
 - Discussed a binding measure for mitigating the impact on seabirds of fishing for southern bluefin tuna, but did not achieve consensus; and
 - Agreed on Minimum Performance Requirements for measures relating to ERS.
- CCSBT 23 (2016):
 - Discussed a binding measure for mitigating the impact on seabirds of fishing for southern bluefin tuna, but did not achieve consensus;
 - Directed the ERSWG, at its 2017 meeting, to specifically examine seabird bycatch mitigation measures currently in place in the 'spatially-based' RFMOs and the best available information on the distribution and population status of seabirds and provide advice to ESC22 and EC24 on whether these mitigation measures should be strengthened, and if they should be strengthened, how they should be strengthened; and
 - Provided a series of topics on seabirds, sharks and trophic interactions that it requested the next ERSWG meeting to consider.
- CCSBT 24 (2017) discussed a binding measure for mitigating the impact on seabirds of fishing for southern bluefin tuna, but did not achieve consensus

(7) PARAGRAPH 7 OF THE ERS RECOMMENDATION

This paragraph states that:

“The Extended Commission and/or its subsidiary bodies as appropriate will undertake an assessment of the risks to ecologically related species posed by fishing for southern bluefin tuna. The Extended Commission will consider how these risks are mitigated by the adoption of measures described at section 2, and will consider whether any additional measures to mitigate risk are required.”

The ERSWG has focused its considerations on ERS mitigation to sharks and seabirds, and it has provided some advice to the Extended Commission in relation to mitigation for sharks and seabirds as described below. However, as can be seen from the summary of CCSBT actions in the Section 6 above, the Extended Commission has not acted on the ERSWG’s main recommendations below with respect to seabird mitigation measures.

Recommendations and advice from the ERSWG to the Extended Commission in relation to mitigation of shark and seabird catches is summarised as follows:

- In 2017, ERSWG 12 agreed that there were currently no specific concerns about shark bycatch in SBT fisheries that warranted additional mitigation requirements at that stage.
- In 2012, on the basis of concerns about seabird populations, continued reports of widespread and substantial captures of seabirds in SBT fisheries and the results of recent research reflected in the ACAP advice on best practice, ERSWG 9 recommended to the Extended Commission that implementation of more effective mitigation measures based on best practice is urgently required. The ERSWG also recognised that all three measures (line weighting, night setting, tori lines) should be applied in high risk areas, to reduce the incidental mortality of seabirds to the lowest possible levels. It also recognised that other factors such as safety, practicality and the characteristics of the fishery should also be recognised, and agreed that it was important to regularly review new monitoring and research data and on the basis of such review to refine mitigation measures as required. The ERSWG also recognised that the available information indicated that prompt implementation of effective seabird bycatch mitigation measures should not be delayed while ecological risk assessments (ERAs) are progressed.
- In 2013, ERSWG 10 reiterated the advice from ERSWG 9 that implementation of more effective mitigation measures based on best practice is urgently required, and that implementation of effective seabird bycatch mitigation measures should not be delayed while ecological risk assessments are progressed. ERSWG 10 also advised that the current ecological risk assessment identified higher risk areas south west of Australia, east of South Africa and in the Tasman Sea.
- In 2015, ERSWG 11 also reiterated the above advice from ERSWG 9 in relation to the implementation of more effective mitigation measures based on best practice being urgently required, and that the current scientific advice on what constitutes best practice mitigation measures is to use all three mitigation measures, namely line weighting, night setting (i.e. setting after nautical twilight and before nautical dawn) and bird streamer lines.

- In 2017, ERSWG 12 confirmed that the level of interaction between seabirds and SBT fisheries has remained at a high level and is still a significant level of concern, and that this suggests that mitigation measures and their implementation should be further promoted. The ERSWG agreed that suggested improvements could also be made to the implementation of current seabird mitigation requirements (such as through education and outreach, and verification that fishing vessels are applying the requirements according to specifications).

Prepared by the Secretariat

Recommendation to Mitigate the Impact on Ecologically Related Species of Fishing for Southern Bluefin Tuna

(Updated at the Eighteenth Annual Meeting – 10-13 October 2011)

The Extended Commission for the Conservation of Southern Bluefin Tuna,

Concerned that some seabird species, notably albatrosses and petrels, are threatened with global extinction,

Mindful that fishing for southern bluefin tuna can also cause incidental harm to other species such as sea turtles and sharks,

Recalling the definition of ecologically related species in Article 2 of the Convention for the Conservation of Southern Bluefin Tuna,

Further recalling the requirement in Article 5(2) of the Convention for the Conservation of Southern Bluefin Tuna that the Parties shall expeditiously provide to the Commission for the Conservation of Southern Bluefin Tuna data on, *inter alia*, ecologically related species.

Determined to mitigate incidental harm to ecologically related species caused by fishing for southern bluefin tuna,

Noting the importance of harmonising conservation and management measures with other organisations responsible for managing international fisheries, as agreed at the Kobe Meeting of Joint Tuna RFMOs on 26 January 2007,

Reaffirming the recommendation at the seventh meeting of the Ecologically Related Species Working Group (ERSWG) held in Tokyo from 3 to 6 July 2007, that Members and Cooperating Non-Members will provide national reports on their interactions with ecologically related species in southern bluefin tuna fisheries to the ERSWG,

Recommends that:

1. Members and Cooperating Non-Members will, to the extent possible, implement the International Plan of Action for Reducing Incidental Catches of Seabirds in Longline Fisheries (IPOA-Seabirds), the International Plan of Action for the Conservation and Management of Sharks (IPOA-Sharks), and the FAO Guidelines to reduce sea turtle mortality in fishing operations (FAO-Sea turtles), if they have not already done so.
2. Members and Cooperating Non-Members will comply with all current binding and recommendatory measures aimed at the protection of ecologically related species, including seabirds, sea turtles and sharks, from fishing, which are adopted from time to time:
 - a) by the Indian Ocean Tuna Commission, when fishing in its Convention area,
 - b) by the Western and Central Pacific Fisheries Commission, when fishing in its Convention area, and

- c) by the International Commission for the Conservation of Atlantic Tunas, when fishing in its Convention area

irrespective of whether the Member or Cooperating Non-Member concerned is a member of the relevant Commission or otherwise cooperates with it.

3. Members and Cooperating Non-Members will collect and report data on ecologically related species to the Extended Commission and/or its subsidiary bodies as appropriate, including the Ecologically Related Species Working Group. Further, the undertaking described in paragraph 2 will include a commitment to comply with measures adopted by the Indian Ocean Tuna Commission, the Western and Central Pacific Fisheries Commission and the International Commission for the Conservation of Atlantic Tunas on the collection and reporting of data in relation to ecologically related species. Data confidentiality shall be protected under the rules that apply in those Commissions.

4. Members and Cooperating Non-Members will report annually to the Compliance Committee of the Extended Commission on the action they have taken pursuant to paragraphs 1, 2 and 3 of this recommendation.

5. The Secretariat of the CCSBT is authorised to collect and exchange relevant data concerning ecologically related species with the Secretariat of the Indian Ocean Tuna Commission, the Secretariat of the Western and Central Pacific Fisheries Commission and the Secretariat of the International Commission for the Conservation of Atlantic Tunas.

6. The Extended Commission will review the operation of this Recommendation with a view to enhancing the protection of ecologically related species from the impacts of fishing for southern bluefin tuna.

7. The Extended Commission and/or its subsidiary bodies as appropriate will undertake an assessment of the risks to ecologically related species posed by fishing for southern bluefin tuna. The Extended Commission will consider how these risks are mitigated by the adoption of measures described at section 2, and will consider whether any additional measures to mitigate risk are required.

Tabulated Results from the ERS Questionnaire

Contents

Section 1 IPOAs	20
Table 1: Results from the ERS questionnaire in relation to the IPOA-Seabirds (n/a means not applicable)	20
Table 2: Results from the ERS questionnaire in relation to the IPOA-Sharks (n/a means not applicable)	21
Table 3: Results from the ERS questionnaire in relation to the FAO Sea Turtle Guidelines (n/a means not applicable)	22
Section 2	23
2.1 Key to the contents of tables	23
2.2 Compliance with Seabird Measures	24
Table 4: Seabirds - Fishing in the IOTC Convention Area	24
Table 5: Seabirds - Fishing in the ICCAT Convention Area between 20 ⁰ S to 25 ⁰ s only	25
Table 6: Seabirds - Fishing in the ICCAT Convention Area	25
Table 7: Seabirds - Fishing in the WCPFC Convention Area	26
2.3 Compliance with Shark Measures	27
Table 8: Sharks, (general) – Fishing in the IOTC Convention Area	27
Table 9: Sharks (general) – Fishing in the ICCAT Convention Area	29
Table 10: Sharks (general) – Fishing in the ICCAT Convention Area – Supplemental Recommendation	30
Table 11: Sharks (general) – Fishing in the WCPFC Convention Area (CMM 2010-07)	30
Table 12: Sharks (general) – Fishing in the WCPFC Convention Area (CMM 2014-05)	31
Table 13: Sharks, (oceanic whitetip) – Fishing in the IOTC Convention Area	32
Table 14: Sharks, (oceanic whitetip) – Fishing in the ICCAT Convention Area	33
Table 15: Sharks, (oceanic whitetip) – Fishing in the WCPFC Convention Area	33
Table 16: Sharks, (thresher sharks) – Fishing in the IOTC Convention Area	34

Table 17: Sharks, (thresher sharks) – Fishing in the ICCAT Convention Area	35
Table 18: Sharks, (silky sharks) – Fishing in the ICCAT Convention Area	36
Table 19: Sharks, (silky sharks) – Fishing in the WCPFC Convention Area	37
Table 20: Sharks, (whale sharks) – Fishing in the IOTC Convention Area	38
Table 21: Sharks, (Atlantic shortfin mako) – Fishing in the ICCAT Convention Area (Recommendation 2010-06)	39
Table 22: Sharks, (Atlantic shortfin mako) – Fishing in the ICCAT Convention Area (Recommendation 2014-06)	39
Table 23: Sharks, (hammerheads) – Fishing in the ICCAT Convention Area	40
Table 24: Sharks, (porbeagle) – Fishing in the ICCAT Convention Area	41
Table 25: Sharks, (Atlantic blue shark) – Fishing in the ICCAT Convention Area	42
2.4 Compliance with Sea Turtle Measures	43
Table 26: Sea turtles – Fishing in the IOTC Convention Area	43
Table 27: Sea turtles – Fishing in the ICCAT Convention Area	45
Table 28: Sea turtles – Fishing in the WCPFC Convention Area	46
2.5 Compliance with Other Measures	48
Table 29: Cetaceans – Fishing in the IOTC Convention Area	48
Table 30: Prohibition of large scale driftnets – Fishing in the IOTC Convention Area	49
Table 31: Prohibition of large scale driftnets – Fishing in the WCPFC Convention Area	50
2.6 ERS Data Requirements	51
Table 32: Bycatch and Discard Data in the ICCAT Convention Area	51

Section 1 IPOAs

Table 1: Results from the ERS questionnaire in relation to the IPOA-Seabirds (n/a means not applicable)

	AU	EU	ID	JP	KR	NZ	TW	ZA
Has an NPOA-Seabirds been adopted?	No ²⁴	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• If a NPOA-Seabirds has been adopted:								
Date first implemented	n/a	2013	2016	2001	2014	2004	2006	2008
Date of most recent update	n/a	2013 ²⁵	2016	2016	2014 ²⁵	2013	2014	2008
Date of most recent implementation review (should be every 4 years)	n/a	2013 ²⁵	2016	2018	2014 ²⁵	In prog.	2014	In prog.
Does the NPOA-Seabirds meet all CCSBT requirements?	n/a	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Does the NPOA-Seabirds include additional mitigation measures that are not considered in the CCSBT ERS Recommendation?	n/a	No	No	No	No	No	No	Yes ²⁶
• If a NPOA-Seabirds has not been adopted:								
Date of last assessment to determine if a problem exists with respect to incidental catch of seabirds	2011	n/a	2017 ²⁷	n/a	n/a	n/a	n/a	2017 ²⁷ , ongoing
Outcome of the assessment	²⁸	n/a	²⁹	n/a	n/a	n/a	n/a	³⁰
Whether or not progress of the assessment, development and implementation of the NPOA-Seabirds been reported as part of the most recent biennial reporting to FAO on the Code of Conduct for Responsible Fisheries	In 2015	-	No	Yes	Yes	Yes	No	No

²⁴ “Currently Australia is developing a National Plan of Action for minimising the incidental catch of seabirds in Australian capture fisheries (NPOA–Seabirds).”

²⁵ Reported by the Member as either “-” or empty. It has been assumed that this means that the most recent update and review was the year that the NPOA was first implemented.

²⁶ “As per permit conditions local and foreign vessels, fishing within South Africa’s EEZ, are required to only set at night and either deploy Bird-scaring lines or use line weighting measures as specified by ACAP When fishing at the high seas, day setting is permitted, but two bird scaring lines and employing an observer are mandatory.”

²⁷ This Member has adopted an NPOA-Seabirds, so it was not required to respond to the questions in this section.

²⁸ “The incidental catch (or bycatch) of seabirds during oceanic longline fishing operations was listed as a key threatening process on 24 July 1995. Under Commonwealth legislation, now the Environmental Protection and Biodiversity Conservation Act 1999 (Cth), an initial threat abatement plan was prepared and approved by the Minister in 1998. Following review after five years a second plan was approved by the Minister in 2006. A review of that threat abatement plan was undertaken in 2011. This Threat Abatement Plan 2014 for the incidental catch (or bycatch) of seabirds during oceanic longline fishing operations is a result of that review. The 2011 review identified that incidental bycatch rates for several fisheries are well below the 0.01 or 0.05 birds per 1000 hooks, the maximum permissible levels set as a performance indicator under the previous plan.”

²⁹ “Estimates Bird Catch Per Unit of Effort (BPUE) From Frozen LL Fishery of Indonesia Operated Above 25 South”.

³⁰ “Seabird bycatch by pelagic longliners off South Africa over the 8-year study period has been significantly reduced from the 8-year period (1998–2005).

Dominic Paul Rollinson, 2017 “UNDERSTANDING AND MITIGATING SEABIRD BYCATCH IN THE SOUTH AFRICAN PELAGIC LONGLINE FISHERY” PhD thesis, University of Cape Town”.

Table 2: Results from the ERS questionnaire in relation to the IPOA-Sharks (n/a means not applicable)

	AU	EU	ID	JP	KR	NZ	TW	ZA
Has an NPOA-Sharks been adopted?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• If a NPOA-Sharks has been adopted:								
Date first implemented	2004	2009	2010	2001	2011	2008	2006	2013
Date of most recent update	2012	2009 ³¹	2015	2016	2011 ³¹	2013	2006	2013
Date of most recent implementation review (should be every 4 years)	2018	2009 ³¹	2015	2018	2015	2013	2006	2013
Does the NPOA-Sharks meet all CCSBT requirements?	Yes	Yes	Yes	Yes	Yes	Yes	No ³²	Yes
Does the NPOA-Sharks include additional mitigation measures that are not considered in the CCSBT ERS Recommendation?	-	No	No	No	No	No	No	Yes ³³
• If a NPOA-Seabirds has not been adopted:								
Do the Member's vessels conduct directed fisheries for sharks or do its vessels regularly catch sharks in non-directed fisheries?	n/a	n/a	-	n/a	n/a	n/a	n/a	Yes
Date of last assessment to determine the status of shark stocks subject to fishing to determine if there is a need for development of a shark plan?	n/a	n/a	2017	n/a	n/a	n/a	n/a	2017
Outcome of the assessment	n/a	n/a	³⁴	n/a	n/a	n/a	n/a	³⁵
Whether or not progress of the assessment, development and implementation of the NPOA-Sharks been reported as part of the most recent biennial reporting to FAO on the Code of Conduct for Responsible Fisheries	In 2015	-	No	Yes	Yes	Yes	No	No

³¹ Reported by the Member as either “-” or empty. It has been assumed that this means that the most recent update and review was the year that the NPOA was first implemented.

³² “Taiwan does not update NPOA-Sharks but translates the management requirements of RFMOs into domestic regulations.”

³³ “As per permit condition, it is prohibited to use wire traces. No sharks are allowed to be retained by the bait boat fishery.”

³⁴ “Synchronization the Efforts and Regulation which have been adopted in RFMO related to the implementation of cites (Non Detriment Finding document (NDF document)) and strengthening of national data collection for sharks and rays”.

³⁵ “ICCAT shortfin mako stock: Results uncertain due to implausible results. ICCAT blue shark: overfishing was not occurring. IOTC blue shark: Not overfished (2017). IOTC shortfin mako shark: Unknown (2017).”

Table 3: Results from the ERS questionnaire in relation to the FAO Sea Turtle Guidelines (n/a means not applicable)

	AU	EU	ID	JP	KR	NZ	TW	ZA
Sea turtle interactions are Common (C), Infrequent (I), Rare (R), or Unknown (U)?	R	R	R	I	R	R	R	R
Existence of official instrument or domestic guideline on Sea Turtle bycatch mitigation measures based on the FAO-Sea turtles ³⁶	Yes	No	Yes	No	Yes	No	Yes	No
FAO-Sea turtles has been implemented in an appropriate manner	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Strategies used in implementing FAO-Sea turtles								
Encouraging/requiring use of modified fishing gear designs and fishing methods?	Yes ³⁷	- ³⁸	Yes ³⁹	Yes ⁴⁰	Yes ⁴¹	Yes ⁴²	Yes ⁴³	Yes ⁴⁴
FAO Best practices for sea turtle handling and release has been implemented?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Any sea turtle bycatch hotspot avoidance measures being used?	No	NA	No	No	No	No ⁴⁵	No	No
Any other strategies that are being used to reduce sea turtle mortality?	Yes ⁴⁶	-	Yes ⁴⁷	n/a		Yes ⁴⁸		
Whether or not progress of the implementation of FAO technical guidelines been reported as part of the most recent biennial reporting to FAO on the Code of Conduct for Responsible Fisheries	No ⁴⁹	-	Yes	No	Yes	Yes	No	No

³⁶ FAO Guidelines to reduce sea turtle mortality in fishing operations.

³⁷ "Large circle hooks are mandatory if less than 8 hooks per bubble are set. De hooking devices are mandatory on all longline vessels. Line cutting devices are mandatory on all longline vessels".

³⁸ "We strictly follow tRFMO rules".

³⁹ "All Indonesia longliners catch SBT have been using circle hook since 2015 and operated as deep longline (hooks setting deeper than 200 m)"

⁴⁰ "SBT fleets are required to carry line cutters, de-hookers and landing net in order to facilitate the appropriate handling and prompt release of sea turtles caught or entangled."

⁴¹ "Circle hook has been used since 2007 with sea trials onboard longliners. Field guide/poster for marine turtles has been distributed on board for fishermen's reference to use proper mitigation and handling techniques for their safe releasing and to collect and report the data."

⁴² "75% of hooks in use in New Zealand's surface longline fleet are circle hooks."

⁴³ "Tuna longline vessels have been encouraged since 2009 to use wide circle hooks."

⁴⁴ "DAFF SA has worked closely with WWF to educate fishers on release procedures for turtles. Skippers are provided with guidelines/ instructions in their permit conditions on how to safely handle and release caught turtles. The use of circle hooks is encourage in the permit conditions, as well as the release of turtles using a de-hooker. As of 2014, skippers were required to record interactions with turtles, including the fate of the turtle in the catch statistic logbooks on board the vessel."

⁴⁵ "Over the period from 2011-2016, only 15 sea turtles were captured in NZ waters and all were released alive. New Zealand has issued its surface longline vessels with turtle dehooking and line cutting equipment to improve the handling of any turtles that are caught."

⁴⁶ "Bycatch mitigation workshops are frequently run to educate fishers about avoidance measures and proper handling of turtles to maximise survivability".

⁴⁷ "Using circle hooks type and deep hooks setting for tuna longline".

⁴⁸ "Very few WCPFC high seas permits are issued for New Zealand flagged surface longline vessels. WCPFC high seas permits for these vessels require the vessel to carry line cutters, de-hookers, and dip nets. The permits include guidelines for safe turtle handling and release."

⁴⁹ "The 2017 FAO reporting template did not seek this information".

Section 2

2.1 Key to the contents of tables

Each table in this section presents the “requirements” of a single Resolution/Recommendation/CMM⁷ of either IOTC, ICCAT and WCPFC respectively. Requirements of these RFMOs that are considered to be mandatory are shown in black text in column 1 of each table. Requirements that are considered to be voluntary are shown in grey text in column 1. In accordance with the SFMWG 5 agreement, Members were not required to respond to the voluntary requirements in the questionnaire.

A separate column is provided in each table for each Member whose vessels catch SBT in the associated Convention Area. In some cases, the Resolution/Recommendation/CMM may be restricted to a reduced part of the Convention Area (e.g. Table 5 is for ICCAT Recommendation 2007-07, which is restricted to 20°-25°S in ICCAT’s Convention Area) and additional Members can be excluded from the associated table if they have indicated that they don’t catch SBT in that location (e.g. Korea in Table 5)⁶.

Non-specific overarching type requirements that are covered by other, more specific requirements were not included in the questionnaire as it is difficult to separately evaluate the implementation of overarching requirements. In addition, requirements relating to the IPOA-Seabirds, IPOA-Sharks and FAO-Sea turtles have been excluded from Section 2 since these were dealt with in Section 1.

Cells highlighted in red are Fleet Requirements for which the Member has advised that it has implemented this requirement as a mandatory requirement for its fleet. A mandatory requirement is considered to be a legally enforceable requirement with penalties for non-compliance. Cells highlighted in orange indicate that the Member has advised that it has partially implemented the requirement on a mandatory basis.

Cells highlighted in black are for requirements that are a task for the Member (Member Requirements) as opposed to a requirement for its vessels.

A value of “Y” or “N” in a cell indicates whether or not that requirement has been implemented or met. Values of “P” and “n/a” mean partially implemented/met and not applicable respectively.

Cells with a patterned frame indicate cases of possible non-compliance, such as a binding measure that has not been implemented, or that has been implemented in a non-mandatory manner, or that has only been partially implemented, or that has been specified as “not applicable” without an explanation for the non-applicability etc.

2.2 Compliance with Seabird Measures

Table 4: Seabirds - Fishing in the IOTC Convention Area

Relevant requirements of IOTC Resolution 12/06 On reducing the incidental bycatch of seabirds in longline fisheries	AU	EU	ID	JP	KR	TW	ZA
1. CPCs shall record data on seabird incidental bycatch by species, notably through scientific observers in accordance with Resolution 11/04 and report these annually.	Y	Y	Y	Y	Y	Y	P ⁵⁰
Observers shall to the extent possible take photographs of seabirds caught by fishing vessels and transmit them to national seabird experts or to the IOTC Secretariat, for confirmation of identification.	Y	Y	P ⁵¹		Y		P ⁵²
2. CPCs that have not fully implemented the provisions of the IOTC Regional Observer Scheme outlined in paragraph 2 of Resolution 11/04 shall report seabird incidental bycatch through logbooks, including details of species, if possible.	Y	n/a ⁵³	Y ⁵⁴		n/a ⁵⁵		
3. CPCs shall provide to the Commission as part of their annual reports, information on how they are implementing this measure.	Y	Y	Y	Y	Y	Y	
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.	Y	Y	Y	Y	Y	Y	Y ⁵⁶
These measures should also be considered for implementation in other areas, as appropriate, consistent with scientific advice.		Y	Y ⁵⁷		N		Y ⁵⁸
6. Mitigation measures used pursuant to paragraph 5 shall conform to the minimum technical standards for these measures, as shown in Table 1.	Y	Y	Y	Y	Y	Y	Y ⁵⁸
7. The design and deployment for bird scaring lines should also meet the additional specifications provided in Annex 1.		Y	Y		Y		Y

⁵⁰ “Partially effective observer programme in its initiation phase to improve monitor local pelagic longline vessels. Foreign monitored (target of 20% per quarter).”

⁵¹ “Currently observer being encouraged to provide the photographs of seabirds caught by fishing vessel”.

⁵² “Absence of observer programme to monitor local pelagic longline vessels. Foreign monitored. Cameras have been provided to observers.”

⁵³ “Currently the EU is fully implementing the Regional Observer Scheme in vessels operating in the zone of SBT occurrence”.

⁵⁴ “Indonesia fishing logbook form has provided column for ERS catch (including seabirds)”.

⁵⁵ “Fully and specially data collection program implemented through NOP as part of ROP”.

⁵⁶ “As per permit conditions local and foreign vessels are required to only set at night (only foreign vessels), deploy Bird-scaring lines, thawed bait before setting, reduced lighting on the vessel and use line weighting measures (60g < 2m of hook).”

⁵⁷ “Night setting and using weighted branch lines”.

⁵⁸ “The above measures implemented for all areas.”

Table 5: Seabirds - Fishing in the ICCAT Convention Area between 20°S to 25°S only

Relevant requirements of ICCAT Recommendation 2007-07 On reducing incidental by-catch of seabirds in longline fisheries	EU	JP	TW	ZA
2. CPCs shall collect and provide all available information to the Secretariat on interactions with seabirds, including incidental catches by their fishing vessels.	Y	Y	Y	Y ⁵⁹
4. All vessels fishing south of 20°S shall carry and use bird-scaring lines (tori poles):	Y	Y	Y	Y ⁶⁰
<ul style="list-style-type: none"> Tori poles shall be used in consideration of the suggested tori pole design and deployment guidelines (provided for in Annex 1); Tori lines are to be deployed prior to longlines entering the water at all times south of 20°S; Back-up tori lines shall be carried by all vessels and be ready for immediate use. 				
<ul style="list-style-type: none"> Where practical, vessels are encouraged to use a second tori pole and bird-scaring line at times of high bird abundance or activity; 				

Table 6: Seabirds - Fishing in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2011-09 Supplemental recommendation by ICCAT on reducing incidental bycatch of seabirds in ICCAT longline fisheries	EU	JP	KR	TW	ZA
1. CPCs shall record data on seabird incidental catch by species through scientific observers in accordance with the Recommendation 10-10 and report these data annually.	Y	Y	Y	Y	Y ⁵⁹
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.	Y	Y	Y	Y	Y ⁵⁶
These measures should also be considered for implementation in other areas, as appropriate, consistent with scientific advice.	Y		N		Y ⁵⁶
5. Mitigation measures used pursuant to paragraph 3 shall conform to the minimum technical standards for the measures as shown in Table 1.	Y	Y	Y	Y	Y ⁶¹
6. The design and deployment for bird scaring lines should also meet the additional specifications provided in Annex 1.	Y		Y		Y ⁶¹

⁵⁹ “Data collected from logbooks. Absence of observer programme to monitor local pelagic longline vessels. Foreign monitored by observers.”

⁶⁰ “Required for all vessels fishing with pelagic longline gear.”

⁶¹ “As guided by Birdlife SA and WWF.”

Table 7: Seabirds - Fishing in the WCPFC Convention Area

Relevant requirements of WCPFC CMM 2017-06 Conservation and Management Measure to mitigate the impact of fishing for highly migratory fish stocks on seabirds	AU	EU	JP	NZ
1. CCMs shall require their longline vessels fishing south of 30°S, to use at least two of these three measures: weighted branch lines, night setting and tori lines. Table 1 does not apply south of 30° South. See Annex 1 for specifications of these measures.	Y	Y	Y	Y ⁶²
3. In other areas (between 30°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.		Y		n/a ⁶³
4. For research and reporting purposes, each CCM with longline vessels that fish in the Convention Area south of 30°S or north of 23°N shall submit to the Commission in part 2 of its annual report information describing which of the mitigation measures they require their vessels to use, as well as the technical specifications for each of those mitigation measures. Each such CCM shall also include in its annual reports for subsequent years any changes it has made to its required mitigation measures or technical specifications for those measures.	Y	Y	Y	Y
5. CCMs are encouraged to undertake research to further develop and refine measures to mitigate seabird bycatch including mitigation measures for use during the setting and hauling process and should submit to the Secretariat for the use by the SC and the TCC any information derived from such efforts. Research should be undertaken in the fisheries and areas to which the measure will be used.	Y	⁶⁴		Y ⁶⁵
7. CCMs are encouraged to adopt measures aimed at ensuring that seabirds captured alive during longlining are released alive and in as good condition as possible and that wherever possible hooks are removed without jeopardizing the life of the seabird concerned. Research into the survival of released seabirds is encouraged.	Y	Y		Y ⁶⁶
9. CCMs shall annually provide to the Commission, in Part 1 of their annual reports, all available information on interactions with seabirds reported or collected by observers to enable the estimation of seabird mortality in all fisheries to which the Convention applies. (see Annex 2 for Part 1 reporting template guideline). These reports shall include information on: 1. the proportion of observed effort with specific mitigation measures used; and 2. observed and reported species specific seabird bycatch rates and numbers or statistically rigorous estimates of species- specific seabird interaction rates (for longline, interactions per 1,000 hooks) and total numbers.	Y	Y	Y	Y ⁶⁷

⁶² “New Zealand flagged vessels are required to use tori lines. They must also use line weighting between half an hour before nautical dawn and half an hour after nautical dusk. The specifications of these mitigations devices mirror those in WCPFC CMM 2017-06.”

⁶³ “No New Zealand longline vessels in this area”.

⁶⁴ “Yes, when possible”.

⁶⁵ “New Zealand has submitted a number of papers to the WCPFC Scientific committee on seabird vulnerability, mitigation device effectiveness and seabird distribution to support improvements to the WCPFC Seabird bycatch mitigation Conservation and Management Measure.”

⁶⁶ “New Zealand has established the position of protected species liaison officer. This officer supports vessel operators in their implementation of the seabird bycatch mitigation obligations, including release practices.”

⁶⁷ “New Zealand has reported on New Zealand flagged surface longline vessel interactions with seabirds as per the table in CMM2015-03.”

2.3 Compliance with Shark Measures

Table 8: Sharks, (general) – Fishing in the IOTC Convention Area

Relevant requirements of IOTC Resolution 17/05 On the conservation of sharks caught in association with fisheries managed by IOTC	AU	EU	ID	JP	KR	TW	ZA
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.	Y ⁶⁸	Y ⁶⁹	Y	Y	Y	Y	Y ⁷⁰
3. a) <u>Sharks landed fresh</u> : 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. b) <u>Sharks landed frozen</u> : CPCs that do not apply sub-paragraph 3a) 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 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.	n/a ⁶⁸	n/a ⁶⁹	Y ⁷¹	Y	Y	Y	Y ⁷⁰
c) CPCs are encouraged to consider to progressively implement the measures described in sub-paragraph 3a) to all shark landings. Paragraph 3 will be revisited by the Commission in its 2019 Annual Meeting in light of recommendations from the Scientific Committee, using the best available science and case studies from other CPCs already prohibiting the removal of shark fins on board vessels.		n/a ⁶⁹	Y ⁷¹		n/a		Y ⁷⁰
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.	Y	Y	Y ⁷²		Y		Y ⁷³
CPCs shall require that fishers are aware of and use identification guides (e.g. <i>IOTC Shark and Ray Identification in Indian Ocean Fisheries</i>) and handling practices.	Y	Y	Y ⁷⁴	Y	Y	Y	Y ⁷⁵

⁶⁸ “All sharks must be landed with fins still attached to the carcass.”

⁶⁹ “All EU vessels apply the fins naturally attached policy.”

⁷⁰ “Fins may not be removed from shark trunks as per permit conditions.”

⁷¹ “All landed and retention on board of sharks (fresh and frozen) from LL fisheries are fully utilized.”

⁷² “Mostly sharks caught in live condition are encouraged to release on board.”

⁷³ “The release of unwanted or prohibited species is encouraged as per permit conditions.”

⁷⁴ “Some identification cards were distributed through scientific observers, and expected more in the future.”

⁷⁵ “Shark identification guides have been provided to fishers (the IOTC Shark and Ray Identification guides as well as the DAFF Chondrichthyan identification guide). Handling practices have been provided to observers in the past.”

Relevant requirements of IOTC Resolution 17/05 On the conservation of sharks caught in association with fisheries managed by IOTC	AU	EU	ID	JP	KR	TW	ZA
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.	Y		N	n/a	N ⁷⁶	Y	Y ⁷⁰
6. CPCs shall report data for catches of sharks no later than 30 June of the following year, in accordance with IOTC data reporting requirements and procedures in Resolution 15/02 <i>mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPC's)</i> (or any subsequent superseding resolution), including all available historical data, estimates and life status of discards (dead or alive) and size frequencies.	Y	Y	Y	Y	Y	Y	Y ⁷⁷
7. CPCs shall prohibit the purchase, offer for sale and sale of shark fins which have been removed on-board, retained on-board, transhipped or landed, in contravention to this Resolution.	Y	Y ⁶⁹	Y ⁷⁸	n/a	Y	Y	Y ⁷⁰
11. CPCs shall undertake research to: a) identify ways to make fishing gears more selective, where appropriate, including research into the effectiveness of prohibiting wire leaders; b) improve knowledge on key biological/ecological parameters, life-history and behavioural traits, migration patterns of key shark species; c) identify key shark mating, pupping and nursery areas; and d) improve handling practices for live sharks to maximise post-release survival.	Y ⁷⁹	⁸⁰	Y	Y	N	Y	Y ⁸¹

⁷⁶ “N/A. Storing and handling problem with fins frozen.”

⁷⁷ “Total catch data, catch and effort data and size data provided annually.”

⁷⁸ “Based on Minister Regulation of Indonesia MMAF No. 5 year 2018 concerning prohibition to sale sharks out of Indonesia.”

⁷⁹ “The use of wire leaders are prohibited in the SBT Fishery.”

⁸⁰ “EU research Institutes conduct currently several research studies to protect sharks.”

⁸¹ “a) Wire leaders and stainless steel hooks prohibited as per permit conditions; b) Research is being conducted [*details of 3 past research papers from 2013 to 2017 were referenced*]; c) Research into mating pupping and nursery areas being conducted [*details of 1 past research paper in 2010 was referenced*]; d) Best practices for live shark release has been provided to observers”

Table 9: Sharks (general) – Fishing in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2004-10 Concerning the conservation of sharks caught in association with fisheries managed by ICCAT	EU	JP	KR	TW	ZA
1. Contracting Parties, Cooperating non-Contracting Parties, Entities or Fishing Entities (CPCs) shall annually report Task I and Task II data for catches of sharks, in accordance with ICCAT data reporting procedures, including available historical data.	Y	Y	Y	Y	Y ⁸²
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.	Y ⁶⁹	Y	Y	Y	Y ⁷⁰
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 observer, or other appropriate measures.	n/a ⁶⁹	Y	Y	Y	Y ⁷⁰
5. Fishing vessels are prohibited from retaining on board, transshipping or landing any fins harvested in contravention of this Recommendation.	n/a ⁶⁹	Y	Y	Y	Y ⁷⁰
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.	Y		Y		Y ⁸³
8. CPCs shall, where possible, undertake research to identify ways to make fishing gears more selective.	Y ^{84,64}		N		Y ⁸⁵
9. CPCs shall, where possible, conduct research to identify shark nursery areas.	Y ^{84,64}		N		Y ⁸⁶

⁸² “Task I and Task II catch data is provided on an annual basis.”

⁸³ “The release of unwanted or prohibited species is encouraged as per permit conditions. Data is collected.”

⁸⁴ Response left empty by Member but has been added by the Secretariat based on the Member’s comment.

⁸⁵ “Research currently underway.”

⁸⁶ “Blue shark nursery identified off South Africa within the Benguela/ Agulhas Current transition filaments. [1 paper referenced]. Suspected shortfin mako nursery off Agulhas Bank shelf edge currently being investigated.”

Table 10: Sharks (general) – Fishing in the ICCAT Convention Area – Supplemental Recommendation

Relevant requirements of ICCAT Recommendation 2007-06 Supplemental Recommendation by ICCAT concerning sharks	EU	JP	KR	TW	ZA
1. Contracting Parties, Cooperating non-Contracting Parties, Entities and Fishing Entities (hereinafter referred to as CPCs), especially those directing fishing activities for sharks, shall submit Task I and II data for sharks, as required by ICCAT data reporting procedures (including estimates of dead discards and size frequencies) in advance of the next SCRS assessment.	Y	Y	Y	Y	Y ⁸²
4. CPCs shall, where possible, implement research on pelagic shark species caught in the Convention area in order to identify potential nursery areas. Based on this research, CPCs shall consider time and area closures and other measures, as appropriate.	₆₄		N		Y ⁸⁶

Table 11: Sharks (general) – Fishing in the WCPFC Convention Area (CMM 2010-07)

Relevant requirements of WCPFC CMM 2010-07 Conservation and Management Measure for sharks	AU	EU	ID	JP	NZ
4. Each CCM shall include key shark species, as identified by the Scientific Committee, in their annual reporting to the Commission of annual catch and fishing effort statistics by gear type, including available historical data, in accordance with the WCPFC Convention and agreed reporting procedures. CCMs shall also report annual retained and discarded catches in Part 2 of their annual report.	Y	Y	Y	Y	Y
CCMs shall as appropriate, support research and development of strategies for the avoidance of unwanted shark captures (e.g. chemical, magnetic and rare earth metal shark deterrents).	Y	₆₄	Y		Y
6. CCMs shall take measures necessary to require that their fishers fully utilize any retained 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 or transshipment.	Y ⁶⁸	Y ⁶⁹	Y ⁷¹	Y	Y

7. CCMs shall require their vessels to have on board fins that total no more than 5% of the weight of sharks on board up to the first point of landing. CCMs 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. CCMs may alternatively require that their vessels land sharks with fins attached to the carcass or that fins not be landed without the corresponding carcass.	n/a ⁶⁸	n/a ⁶⁹	Y ⁸⁷	Y	Y ⁸⁸
9. CCMs shall take measures necessary to prohibit their fishing vessels from retaining on board, transshipping, landing, or trading any fins harvested in contravention of this Conservation and Management Measure (CMM).	n/a ⁶⁸	n/a ⁶⁹	Y ⁷⁸	Y	Y
10. In fisheries for tunas and tuna-like species that are not directed at sharks, CCMs shall take measures to encourage the release of live sharks that are caught incidentally and are not used for food or other purposes.	Y	Y	Y	Y	Y ⁸⁹
12. CCMs shall advise the Commission in Part 2 of the annual report on the implementation of this CMM and any alternative measures adopted under paragraph 11.	Y	Y	Y	Y	Y ⁹⁰

Table 12: Sharks (general) – Fishing in the WCPFC Convention Area (CMM 2014-05)

Relevant requirements of WCPFC CMM 2014-05 Conservation and Management Measure for sharks	AU	EU	ID	JP	NZ
Measures for longline fisheries targeting tuna and billfish 1. CCMs shall ensure that their vessels comply with at least one of the following options: a. do not use or carry wire trace as branch lines or leaders; or b. do not use branch lines running directly off the longline floats or drop lines, known as shark lines. See Figure 1 for a schematic diagram of a shark line	Y ⁹¹	Y ⁹²	Y	Y	Y ⁹³

⁸⁷ “Mostly sharks caught in live condition are encouraged to release on board.”

⁸⁸ “As per New Zealand’s NPOA for sharks, species specific ratios apply for domestic landing of two of the WCPFC key shark species, and five other species of shark. All other sharks caught domestically must be landed with fins naturally attached. Holders of high seas fishing permits must land fins naturally attached.”

⁸⁹ “New Zealand NPOA on Sharks, includes provisions which allow for the live release of sharks caught by fishing vessels both in the EEZ and on the high seas. Any silky shark and oceanic white tip shark that is caught by the permit holder in the Convention Area is to be released as soon as possible after the shark is brought alongside the vessel, and in a manner that results in as little harm to the shark as possible.”

⁹⁰ “Species specific fin to carcass ratio for landing seven species of shark.”

⁹¹ “Wire traces and shark lines are banned in the SBT fishery.”

⁹² “EU applies option b.”

⁹³ “Neither of these options is allowed.”

Table 13: Sharks, (oceanic whitetip) – Fishing in the IOTC Convention Area

Relevant requirements of IOTC Resolution 13/06 On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	AU	EU	ID	JP	KR	TW	ZA
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 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. 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.	Y ⁹⁴	Y	Y	Y	Y	Y	Y ⁹⁵
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.	Y	Y	Y	Y	Y	Y	Y ⁹⁵
However, CPCs should encourage their fishers to release this species if recognised on the line before bringing them onboard the vessels.	Y	Y	Y		Y		Y ⁸³
5. CPCs shall encourage their fishers to record incidental catches as well as live releases of oceanic whitetip sharks.	Y	Y	Y	Y	Y	Y	Y ⁹⁶
6. CPCs shall, where possible, implement research on oceanic whitetip sharks taken in the IOTC area of competence, in order to identify potential nursery areas. Based on this research, CPCs shall consider other measures, as appropriate.		⁶⁴	Y		N		Y ^{84,97}
8. The CPCs, especially those targeting sharks, shall submit data for sharks, as required by IOTC data reporting procedures.	Y	Y	Y	Y	Y	Y	Y ⁹⁵

⁹⁴ “The take of oceanic whitetip sharks is banned.”

⁹⁵ “Retention of oceanic white tip shark prohibited as per permit conditions.”

⁹⁶ “Data is required as per permit conditions.”

⁹⁷ “Retention of oceanic white tip shark prohibited as per permit conditions. Catches have been deemed too low to warrant research initiatives.”

Table 14: Sharks, (oceanic whitetip) – Fishing in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2010-07 On the conservation of oceanic whitetip shark caught in association with fisheries in the ICCAT Convention Area	EU	JP	KR	TW	ZA
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 oceanic whitetip sharks in any fishery.	Y	Y	Y	Y	Y ⁹⁵
2. CPCs shall record through their observer programs the number of discards and releases of oceanic whitetip sharks with indication of status (dead or alive) and report it to ICCAT.	Y	Y	Y	Y	Y ⁹⁶

Table 15: Sharks, (oceanic whitetip) – Fishing in the WCPFC Convention Area

Relevant requirements of WCPFC CMM 2011-04 Conservation and management Measure for oceanic whitetip shark	AU	EU	ID	JP	NZ
1. Members, Cooperating Non-Members and Participating Territories (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 whitetip shark, in whole or in part, in the fisheries covered by the Convention.	Y ⁹⁴	Y	Y	Y	Y ⁹⁸
2. CCMs shall require all vessels flying their flag and vessels under charter arrangements to the CCM to release any oceanic whitetip 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.	Y	Y	Y	Y	Y ⁹⁹
3. CCMs shall estimate, through data collected from observer programs and other means, the number of releases of oceanic whitetip shark, including the status upon release (dead or alive), and report this information to the WCPFC in Part 1 of their Annual Reports.	Y	Y	Y	Y	Y

⁹⁸ “Protected species under the Wildlife Act 1953. This is prohibited for New Zealand flagged vessels in WCPFC high seas permits.”

⁹⁹ “Protected species under the Wildlife Act 1953. This is also a requirement of New Zealand WCPFC high seas permits.”

Table 16: Sharks, (thresher sharks) – Fishing in the IOTC Convention Area

Relevant requirements of IOTC Resolution 12/09 On the conservation of thresher sharks (family Alopiidae) caught in association with fisheries in the IOTC area of competence	AU	EU	ID	JP	KR	TW	ZA
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.	Y	Y	Y	Y	Y	Y	Y ¹⁰⁰
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.	Y	Y	Y		Y		Y ⁷³
4. CPCs shall encourage their fishers to record and report incidental catches as well as live releases. These data will be then kept at the IOTC Secretariat.	Y	Y	Y		Y		¹⁰¹
5. Recreational and sport fishing shall release alive all caught animals of thresher sharks of all the species of the family Alopiidae. In no circumstances specimen shall be retained on board, transhipped, landed, stored, sold or offered for sale. The CPCs shall ensure that both recreational and sport fishermen carrying out fishing with high risk of catching thresher sharks are equipped with instruments suitable to release alive the animals.	P ¹⁰²	Y	N ¹⁰³	n/a	n/a ¹⁰⁴	n/a ¹⁰⁵	N
6. CPCs shall, where possible, implement research on sharks of the species Alopias spp, in the Convention area in order to identify potential nursery areas. Based on this research, CPCs shall consider additional management measures, as appropriate.		⁶⁴	Y		N		Y ¹⁰⁶
8. The Contracting Parties, Co-operating non-Contracting Parties, especially those directing fishing activities for sharks, shall submit data for sharks, as required by IOTC data reporting procedures.	Y	Y	Y	Y	Y	Y	Y ¹⁰⁷

¹⁰⁰ “Retention of thresher sharks prohibited as per permit conditions.”

¹⁰¹ “Data collection on discards and live release required as per permit conditions.”

¹⁰² “Most recreational fishing activity is limited to capture/tag and release. Results from recreational tuna catch surveys indicate that interactions with thresher sharks are extremely rare.”

¹⁰³ “Recreational and sport fishing have not been managed in National Regulation.”

¹⁰⁴ “No Recreational and sport fishing.”

¹⁰⁵ “We do not have any recreational and sport fishing vessel operating in the IOTC Convention Area.”

¹⁰⁶ “Retention of thresher sharks prohibited as per permit conditions. Catches have been deemed too low to warrant research initiatives.”

¹⁰⁷ “Retention of thresher sharks prohibited as per permit conditions.”

Table 17: Sharks, (thresher sharks) – Fishing in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2009-07 On the conservation of thresher sharks caught in association with fisheries in the ICCAT Convention Area	EU	JP	KR	TW	ZA
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 small-scale coastal fishery with a catch of less than 110 fish.	Y	Y	Y	Y	Y ¹⁰⁰
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.	Y		Y		Y ⁷³
4. CPCs shall require the collection and submission of Task I and Task II data for <i>Alopias spp</i> other than <i>A. superciliosus</i> in accordance with ICCAT data reporting requirements. The number of discards and releases of <i>A. superciliosus</i> must be recorded with indication of status (dead or alive) and reported to ICCAT in accordance with ICCAT data reporting requirements.	Y	Y	Y	Y	Y ¹⁰¹
5. CPCs shall, where possible, implement research on thresher sharks of the species <i>Alopias spp</i> in the Convention area in order to identify potential nursery areas. Based on this research, CPCs shall consider time and area closures and other measures, as appropriate.	⁶⁴		N		Y ¹⁰⁶

Table 18: Sharks, (silky sharks) – Fishing in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2011-08 On the conservation of silky sharks caught in association with ICCAT fisheries	EU	JP	KR	TW	ZA
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. ^{108,109}	Y	Y	Y	Y	Y ¹¹⁰
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.	Y	Y	Y	Y	Y ⁷³
Purse seine vessels engaged in ICCAT fisheries shall endeavor to take additional measures to increase the survival rate of silky sharks incidentally caught. ¹⁰⁹	Y ¹¹¹		n/a ¹¹²		Y ¹¹³
3. CPCs shall record through their observer programs the number of discards and releases of silky sharks with indication of status (dead or alive) and report it to ICCAT.	Y	Y	Y	Y	Y ¹⁰¹
7. In their annual reports, CPCs shall inform the Commission of steps taken to implement this Recommendation through domestic law or regulations, including monitoring, control and surveillance measures that support implementation of this recommendation.	Y	Y	Y	Y	Y ¹¹⁴

¹⁰⁸ The prohibition on retention in paragraph 1 does not apply to CPCs whose domestic law requires that all dead fish be landed, that the fishermen cannot draw any commercial profit from such fish and that includes a prohibition against silky shark fisheries. If you have not implemented this paragraph in relation to dead silky sharks because you satisfy this exemption, please state this in the comments.

¹⁰⁹ Silky sharks that are caught by developing coastal CPCs for local consumption are exempted from the measures established in this paragraph, provided these CPCs submit Task I and, if possible, Task II data according to the reporting procedures established by the SCRS. CPCs that have not reported species-specific shark data shall provide a plan by July 1, 2012, for improving their data collection for sharks on a species specific level for review by the SCRS and Commission. Developing coastal CPCs exempted from the prohibition pursuant to this paragraph shall not increase their catches of silky sharks. Such CPCs shall take necessary measures to ensure that silky sharks will not enter international trade and shall notify the Commission of such measures. If you have not implemented this paragraph because you satisfy this exemption, please state this in the comments. Also include in the comments a remark concerning whether or not you have satisfied all of the requirements of this exemption.

¹¹⁰ “Retention of silky sharks prohibited as per permit conditions.”

¹¹¹ “But no purse seiners active in the zone of SBT occurrence.”

¹¹² “No purse seiner.”

¹¹³ “Purse seine fishing for tuna and tuna-like species prohibited in SA.”

¹¹⁴ “Inserted into annual reports.”

Table 19: Sharks, (silky sharks) – Fishing in the WCPFC Convention Area

Relevant requirements of WCPFC CMM 2013-08 Conservation and management measure for silky sharks	AU	EU	ID	JP	NZ
1. Commission Members, Cooperating Non-Members and Participating Territories (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 silky shark caught in the Convention Area, in whole or in part, in the fisheries covered by the Convention.	Y	Y	Y	Y	n/a ¹¹⁵
2. CCMs shall require all vessels flying their flag and vessels under charter arrangements to the CCM to release any silky shark that is caught in the Convention Area 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.	Y	Y	Y	Y	n/a ¹¹⁶
3. CCMs shall estimate, through data collected from observer programs and other means, the number of releases of silky shark caught in the Convention Area, including the status upon release (dead or alive), and report this information to the WCPFC in Part 1 of their Annual Reports.	Y	Y	Y	Y	Y
6. CCM's and the Scientific Committee shall continue work on bycatch mitigation measures and live release guidelines to avoid the initial catch of this species wherever possible, and maximize the number of incidentally caught individuals that can be released alive.	Y	Y	Y	Y	Y

¹¹⁵ “No reported catch of species. This is prohibited for New Zealand flagged vessels in WCPFC high seas permits.”

¹¹⁶ “No reported catch of species. This is a requirement of New Zealand WCPFC high seas permits.”

Table 20: Sharks, (whale sharks) – Fishing in the IOTC Convention Area

Relevant requirements of IOTC Resolution 2013/05 On the conservation of whale sharks	AU	EU	ID	JP	KR	TW	ZA
2. Contracting Parties and Cooperating Non-Contracting Parties (collectively, CPCs) shall prohibit their flagged vessels from intentionally setting a purse seine net around a whale shark in the IOTC area of competence, if it is sighted prior to the commencement of the set.	Y	Y ¹¹⁷	Y	Y	Y	n/a ¹¹⁷	Y ¹¹³
3. CPCs shall require that, in the event that a whale shark is unintentionally encircled in the purse seine net, the master of the vessel shall: a) take all reasonable steps to ensure its safe release, while taking into consideration the safety of the crew. These steps shall follow the best practice guidelines for the safe release and handling of whale sharks developed by the IOTC Scientific Committee; b) report the incident to the relevant authority of the flag State, with the following information: i. the number of individuals; ii. a short description of the interaction, including details of how and why the interaction occurred, if possible; iii. the location of the encirclement; iv. the steps taken to ensure safe release; v. an assessment of the life status of the animal on release, including whether the whale shark was released alive but subsequently died.	Y	- ¹¹¹	Y	Y	Y	n/a ¹¹⁷	Y ¹¹³
4. CPCs using other gear types fishing for tuna and tuna-like species associated with a whale shark shall report all interactions with whale sharks to the relevant authority of the flag State and include all the information outlined in paragraph 3b(i–v).	Y	- ¹¹¹	Y	Y	Y	n/a ¹¹⁸	Y ⁷³
5. CPCs shall adopt Fish Aggregating Device designs that reduce the incidence of entanglement, according to Annex III of Resolution 13/08 (or any subsequent revision).	Y	- ¹¹¹	N ¹¹⁹	Y	Y	n/a ¹¹⁷	Y ¹²⁰
7. CPCs shall report the information and data collected under paragraph 3(b) and paragraph 4 through logbooks, or when an observer is onboard through observer programs, and provide to the IOTC Secretariat by 30 June of the following year and according to the timelines specified in Resolution 10/02 (or any subsequent revision).	Y	- ¹¹¹	Y	Y	Y	n/a ¹¹⁸	Y ¹²¹
8. CPCs shall report, in accordance with Article X of the IOTC Agreement, any instances in which whale sharks have been encircled by the purse seine nets of their flagged vessels.	Y	- ¹¹¹	Y	Y	Y	n/a ¹¹⁷	Y ¹¹³

¹¹⁷ “We do not have any purse seine vessel operating in the IOTC Convention Area.”

¹¹⁸ “According to paragraph 9 of IOTC Resolution 13/05, Taiwan has national legislation for protecting the species and shall be exempt from reporting to IOTC.”

¹¹⁹ “Indonesia does not apply Drifting FAD.”

¹²⁰ “Interactions with whale sharks have not been identified as a problem in SA.”

¹²¹ “Observers are required to report capture and release of all species.”

Table 21: Sharks, (Atlantic shortfin mako) – Fishing in the ICCAT Convention Area (Recommendation 2010-06)

Relevant requirements of ICCAT Recommendation 2010-06 On Atlantic shortfin mako sharks caught in association with ICCAT fisheries	EU	JP	KR	TW	ZA
1. CPCs shall include information in their 2012 Annual Reports on actions taken to implement Recommendations 04-10, 05-05, and 07-06, in particular the steps taken to improve their Task I and Task II data collection for direct and incidental catches;	Y	Y	Y	Y	Y

Table 22: Sharks, (Atlantic shortfin mako) – Fishing in the ICCAT Convention Area (Recommendation 2014-06)

Relevant requirements of ICCAT Recommendation 2014-06 On shortfin mako caught in association with ICCAT fisheries	EU	JP	KR	TW	ZA
1. CPCs shall improve their catch reporting systems to ensure the reporting of shortfin mako catch and effort data to ICCAT in full accordance with the ICCAT requirements for provision of Task I and Task II catch, effort and size data.	Y	Y	Y	Y	Y
2. CPCs shall include in their annual reports to ICCAT information on the actions they have taken domestically to monitor catches and to conserve and manage shortfin mako sharks.	Y	Y	Y	Y	Y
3. CPCs are encouraged to undertake research that would provide information on key biological/ecological parameters, life-history and behavioural traits, as well as on the identification of potential mating, pupping and nursery grounds of shortfin mako sharks. Such information shall be made available to the SCRS.	⁶⁴		N		Y ¹²²

¹²² “Past research conducted. [1 paper referenced]. Current research underway to identify a nursery ground for shortfin mako sharks off the Agulhas Bank shelf edge.”

Table 23: Sharks, (hammerheads) – Fishing in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2010-08 On hammerhead sharks (family Sphyrnidae) caught in association with fisheries managed by ICCAT	EU	JP	KR	TW	ZA
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 Sphyrnidae (except for the <i>Sphyrna tiburo</i>), taken in the Convention area in association with ICCAT fisheries. ¹²³	Y	Y	Y	Y	Y ¹²⁴
2. CPCs shall require vessels flying their flag, to promptly release unharmed, to the extent practicable, hammerhead sharks when brought alongside the vessel. ¹²³	Y	Y	Y	Y	Y ¹²⁵
4. CPCs shall require that the number of discards and releases of hammerhead sharks are recorded with indication of status (dead or alive) and reported to ICCAT in accordance with ICCAT data reporting requirements.	Y	Y	Y	Y	Y ¹⁰¹
5. CPCs shall, where possible, implement research on hammerhead sharks in the Convention area in order to identify potential nursery areas. Based on this research, CPCs shall consider time and area closures and other measures, as appropriate.	N ⁶⁴		N		N ¹²⁶

¹²³ Hammerhead sharks that are caught by developing coastal CPCs for local consumption are exempted from the measures established in paragraphs 1 and 2, provided these CPCs submit Task I and, if possible, Task II data according to the reporting procedures established by the SCRS. If it is not possible to provide catch data by species, they shall be provided at least by genus *Sphyrna*. Developing coastal CPCs exempted from this prohibition pursuant to this paragraph should endeavor not to increase their catches of hammerhead sharks. Such CPCs shall take necessary measures to ensure that hammerhead sharks of the family Sphyrnidae (except of *Sphyrna tiburo*) will not enter international trade and shall notify the Commission of such measures. If you have not implemented this paragraph because you satisfy this exemption, please state this in the comments. Also include in the comments a remark concerning whether or not you have satisfied all of the requirements of this exemption.

¹²⁴ “Retention of hammerhead sharks of the family Sphyrnidae prohibited as per permit conditions.”

¹²⁵ “The release of unwanted or prohibited species is encouraged as per permit conditions. Retention is prohibited.”

¹²⁶ “Retention of hammerhead sharks of the family Sphyrnidae prohibited as per permit conditions. Research not yet underway.”

Table 24: Sharks, (porbeagle) – Fishing in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2015-06 On porbeagle caught in association with ICCAT fisheries	EU	JP	KR	TW	ZA
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.	Y	Y	Y	Y	Y ¹²⁷
2. CPCs shall ensure the collection of Task I and Task II data for porbeagle sharks and their submission in accordance with ICCAT data reporting requirements. Discards and releases of porbeagle sharks shall be recorded with indication of status (dead or alive) and reported to ICCAT in accordance with ICCAT data reporting requirements.	Y	Y	Y	Y	Y ¹²⁸
4. CPCs are encouraged to implement the research recommendations of the joint 2009 ICCAT-ICES inter-sessional meeting. In particular, CPCs are encouraged to implement research and monitoring projects at regional (stock) level, in the Convention area, in order to close gaps on key biological data for porbeagle and identify areas of high abundance of important life-history stages (e.g. mating, pupping and nursery grounds). SCRS should continue joint work with ICES Working Group on Elasmobranch Fishes.	⁶⁴		N		Y ¹²⁹

¹²⁷ “Retention of porbeagle sharks prohibited as per permit conditions.”

¹²⁸ “Retention of porbeagle sharks prohibited as per permit conditions. The release of unwanted or prohibited species is encouraged as per permit conditions. Data collection on live releases and discards required as per permit conditions.”

¹²⁹ “Retention of porbeagle sharks prohibited as per permit conditions. Catches have been deemed too low to warrant research initiatives.”

Table 25: Sharks, (Atlantic blue shark) – Fishing in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2016-12 On management measures for the conservation of Atlantic blue shark caught in association with ICCAT fisheries	EU	JP	KR	TW	ZA
4. Each CPC shall ensure that its vessels catching blue shark in association with ICCAT fisheries in the Convention area record their catch in accordance with the requirements set out in the Recommendation by ICCAT Concerning the Recording of Catch by Fishing Vessels in the ICCAT Convention Area [Rec. 03-13].	n/a ¹³⁰	Y	Y	Y	Y ¹³¹
5. CPCs shall implement data collection programmes that ensure the reporting of accurate blue shark catch, effort, size and discard data to ICCAT in full accordance with the ICCAT requirements for provision of Task I and Task II.	¹³⁰	Y	Y	Y	Y ^{84,131}
6. CPCs shall include in their Annual Reports to ICCAT information on the actions they have taken domestically to monitor catches and to conserve and manage blue sharks.	¹³⁰	Y	Y	Y	Y ^{84,132}
7. CPCs are encouraged to undertake scientific research that would provide information on key biological/ ecological parameters, life-history, migrations, post-release survivorship and behavioural traits of blue sharks. Such information shall be made available to the SCRS.	¹³⁰		N		Y ^{84,133}

¹³⁰ “This measures only applies to the North Atlantic Blue Shark and therefore is not relevant here.”

¹³¹ “Data required as per permit conditions. Data submitted annually.”

¹³² “Action information included in Annual Reports.”

¹³³ “Research conducted [3 papers referenced].”

2.4 Compliance with Sea Turtle Measures

Table 26: Sea turtles – Fishing in the IOTC Convention Area

Relevant requirements of IOTC Resolution 12/04 On the conservation of marine turtles	AU	EU	ID	JP	KR	TW	ZA
3. CPCs shall collect (including through logbooks and observer programs) and provide to the IOTC Secretariat no later than 30 June of the following year in accordance with Resolution 10/02 (or any subsequent revision), all data on their vessels' interactions with marine turtles. The data shall include the level of logbook or observer coverage and an estimation of total mortality of marine turtles incidentally caught in their fisheries.	Y ¹³⁴	Y	Y	Y	Y	Y	Y ¹³⁵
4. CPCs shall report to the Scientific Committee information on successful mitigation measures and other impacts on marine turtles in the IOTC area, such as the deterioration of nesting sites and swallowing of marine debris.	Y	Y	Y	Y	Y	Y	N ¹³⁶
5. CPCs shall report to the Commission in the annual implementation report, in accordance with Article X of the IOTC Agreement, their progress of implementation of the FAO Guidelines and this Resolution.	Y	Y	Y	Y	Y	Y	Y ¹³⁷
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.	Y	Y	Y ¹³⁸	Y	Y	Y	Y ¹³⁶
8. CPCs with longline vessels that fish for species covered by the IOTC Agreement shall: 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	Y	Y	Y	Y	Y	Y	Y ¹³⁹
b) Where appropriate, encourage the use of whole finfish bait		Y	Y		Y		N

¹³⁴ “Interactions between sea turtles and Australian pelagic longline fisheries are rare. Australia considers that current sea turtle bycatch management and mitigation measures in place in its pelagic longline fisheries, principally the ETBF and WTBF fulfil Australia’s obligations with FAO-Sea turtles. Australia is also compliant with IOTC Resolution 12/04: On the Conservation of Marine Turtles and WCPFC CMM 2008-03: Conservation and Management of Sea Turtles. Additionally the Recovery Plan for Marine Turtles in Australia was developed by the Department of the Environment and adopted in July 2003. The primary objective of the plan is to reduce the detrimental impacts on Australian populations of sea turtles and promote their recovery in the wild.”

¹³⁵ “The release of unwanted or prohibited species is encouraged as per permit conditions. Data collection on live releases and discards required as per permit conditions.”

¹³⁶ “Release procedures included in permit conditions.”

¹³⁷ “Information included in Annual Implementation report.”

¹³⁸ “Based on observer data, most of the marine turtle caught accidentally were released alive.”

¹³⁹ “Release procedures using de-hookers included in permit conditions. Instructions of appropriate provided.”

Relevant requirements of IOTC Resolution 12/04 On the conservation of marine turtles	AU	EU	ID	JP	KR	TW	ZA
c) Require that operators of such vessels record all incidents involving marine turtles during fishing operations in their logbooks and report such incidents to the appropriate authorities of the CPC	Y	Y	Y	Y	Y	Y	Y ¹³⁵
9. CPCs with purse seine vessels that fish for species covered by the IOTC Agreement shall:							
a) Ensure that operators of such vessels, while fishing in the IOTC area:							
i. To the extent practicable, avoid encirclement of marine turtles, and if a marine turtle is encircled or entangled, take practicable measures to safely release the turtle in accordance with the handling guidelines in the IOTC Marine Turtle Identification Cards		Y	Y		Y		Y ¹⁴⁰
ii. To the extent practicable, release all marine turtles observed entangled in fish aggregating devices (FADs) or other fishing gear							
iii. If a marine turtle is entangled in the net, stop net roll as soon as the turtle comes out of the water; disentangle the turtle without injuring it before resuming the net roll;	Y	Y	Y	Y	Y	n/a ¹¹⁷	Y ¹⁴⁰
and to the extent practicable, assist the recovery of the turtle before returning it to the water		Y			Y		Y ¹⁴⁰
iv. Carry and employ dip nets, when appropriate, to handle marine turtles	N	Y	Y	Y	Y	n/a ¹¹⁷	Y ¹⁴⁰
b) Encourage such vessels to adopt FAD designs that reduce the incidence of entanglement of marine turtles according to international standards		Y	N ¹¹⁹		Y		Y ¹⁴¹
c) Require that operators of such vessels record all incidents involving marine turtles during fishing operations in their logbooks and report such incidents to the appropriate authorities of the CPC	Y	Y	Y	Y	Y	n/a ¹¹⁷	Y ¹⁴²
10. All CPCs are requested to:							
a) Where appropriate undertake research trials of circle hooks, use of whole finfish for bait, alternative FAD designs, alternative handling techniques, gillnet design and fishing practices and other mitigation methods which may improve the mitigation of adverse effects on marine turtles							
b) Report the results of these trials to the Scientific Committee (SC), at least 30 days in advance of the annual meetings of the SC							
14. CPCs are encouraged to collaborate with the IOSEA and take into account the IOSEA MoU including the provisions of the Conservation and Management Plan in the implementation of bycatch mitigation measures for marine turtles.							
16. CPCs are encouraged to support developing countries in their implementation of the FAO Guidelines and this Resolution.							

¹⁴⁰ “Purse seining for tuna and tuna-like species not permitted.”

¹⁴¹ “FADs not permitted.”

¹⁴² “Purse seining and FADs not permitted.”

Table 27: Sea turtles – Fishing in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2010-09 On the by-catch of sea turtles in ICCAT fisheries [incorporating changes from ICCAT Recommendation 2013-11 amending Recommendation 2010-09]	EU	JP	KR	TW	ZA
1. Each CPC shall collect, and annually report to ICCAT no later than 2012 information on the interactions of its fleet with sea turtles in ICCAT fisheries by gear type, including catch rates that take into consideration gear characteristics, times and locations, target species, and disposition status (i.e., discarded dead or released alive). Data to be recorded and reported must also include a breakdown of interactions by sea turtle species, and, where possible, include the nature of the hooking or entanglement (including with Fish Aggregating Devices or FADs), bait type, hook size and type, and the size of the animal.	Y	Y	Y	Y	Y ¹³⁵
CPCs are strongly encouraged to use observers to collect this information.	¹⁴³		Y		P ¹⁴⁴
2. CPCs shall require that:					
a) purse seine vessels flagged to that CPC operating in the Convention area avoid encircling sea turtles to the extent practicable, release encircled or entangled sea turtles, including on FADs, when feasible, and	Y		n/a ¹¹²		Y ¹⁴⁰
report interactions between purse seines and/or FADs and sea turtles to their flag CPC so that this information is included in the CPC reporting requirements specified in paragraph 1;	Y	n/a	n/a ¹¹²	n/a ¹⁴⁵	¹⁴⁰
b) pelagic longline vessels flagged to that CPC operating in the Convention area carry on board safehandling, disentanglement and release equipment capable of releasing sea turtles in a manner that maximizes the probability of their survival;	Y ¹⁴⁶	Y	Y	Y	Y ¹³⁶
c) fishermen on pelagic longline vessels flagged to that CPC operating under their flag use the equipment specified in item 2b above to maximize the probability of sea turtle survival and are trained in safehandling and release techniques.					
d) Regarding safe-handling practices:					
i) When a turtle is to be removed from the water, an appropriate basket lift or dip-net shall be used to bring aboard sea turtles that are hooked or entangled in gear. No turtle shall be hauled from the water by a fishing line attached to, or entangled upon the body of a turtle.					
If the turtle cannot be safely removed from the water, the crew should cut the line as close as possible to the hook, without inflicting additional unnecessary harm on the turtle.	¹⁴³		Y		Y ¹³⁶
ii) In cases where marine turtles are taken on board, vessel operators or crew shall assess the condition of sea turtles that are caught or entangled prior to release.	Y	Y	Y	Y	Y ¹³⁶

¹⁴³ “Information not available.”

¹⁴⁴ “Data is collected when observers are on board. No observers for local fleet. Fishers are required to submit this data as per permit conditions.”

¹⁴⁵ “We do not have any purse seine vessel operating in the ICCAT Convention Area.”

¹⁴⁶ “Information not available” for point “c”.

Those turtles with difficulties to move or are unresponsive shall be kept on board to the extent practicable and assisted in a manner consistent with maximizing their survival prior to release. These practices are described further in the FAO's Guidelines to Reduce Sea Turtle Mortality in Fishing Operations. iii) To the extent practicable, turtles handled in fishing operations or during national observer programs (e.g. tagging activities) shall be handled in a manner consistent with the FAO's Guidelines to Reduce Sea Turtle Mortality in Fishing Operations.	Y		Y		Y ¹³⁶
e) Regarding the use of line cutters: i) Longline vessels shall carry on board line-cutters and use these when de-hooking is not possible without harming the marine turtle while releasing them. ii) Other types of vessels that use gear that may entangle sea turtles shall carry on board line-cutters and use these tools to safely remove gear, and release sea turtles. f) Regarding the use of de-hooking devices: Longline vessels shall carry on board de-hooking devices to effectively remove hooks from sea turtles. When a hook is swallowed, no attempt shall be made to remove the hook. Instead, the line must be cut as close to the hook as possible without inflicting additional unnecessary harm on the turtle.	Y	Y	Y	Y	Y
5. As appropriate, the Commission and its CPCs should, individually and collectively, engage in capacity building efforts and other cooperative activities to support the effective implementation of this recommendation, including entering into cooperative arrangements with other appropriate international bodies.	Y		Y		
6. In their Annual Reports to ICCAT, CPCs shall report on the implementation of this Recommendation, focusing on paragraphs 1, 2, and 5.	Y	Y	Y	Y	
In addition, CPCs should report on other relevant actions taken to implement FAO's Guidelines to Reduce Sea Turtle Mortality in Fishing Operations with respect to ICCAT fisheries in their Annual Reports.	¹⁴³		Y		

Table 28: Sea turtles – Fishing in the WCPFC Convention Area

Relevant requirements of WCPFC CMM 2008-03 Conservation and management of sea turtles	AU	EU	ID	JP	NZ
2. Beginning in 2009, CCMs shall report to the Commission in Part 2 of their annual reports the progress of implementation of the FAO Guidelines and this measure, including information collected on interactions with sea turtles in fisheries managed under the Convention.	Y	Y	Y	Y	Y ¹⁴⁷
3. All data collected by the WCPFC Regional Observer Program (ROP), shall be reported to the Commission as provided in paragraph 2 above or as agreed to under other Commission data collection provisions.	Y	Y	Y	Y	n/a ¹⁴⁸

¹⁴⁷ "CMM 2008-03 has been implemented through the New Zealand high seas fishing permit conditions. All incidents involving sea turtles by either longline or purse seine vessels are required to be reported to the Ministry for Primary Industries, New Zealand."

¹⁴⁸ "New Zealand SBT fishery is an in-zone fishery which does not use the WCPFC ROP."

Relevant requirements of WCPFC CMM 2008-03 Conservation and management of sea turtles	AU	EU	ID	JP	NZ
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.	Y	Y	Y		Y
CCMs shall ensure that fishermen are aware of and use proper mitigation and handling techniques, as described in WCPFC guidelines to be developed and provided to all CCMs by the Secretariat.	Y	Y	Y	Y	Y ¹⁴⁹
5. CCMs with purse seine vessels that fish for species covered by the Convention shall:					
a. Ensure that operators of such vessels, while fishing in the Convention Area:					
i. To the extent practicable, avoid encirclement of sea turtles, and if a sea turtle is encircled or entangled, take practicable measures to safely release the turtle.	Y	Y	Y		
ii. To the extent practicable, release all sea turtles observed entangled in fish aggregating devices (FADs) or other fishing gear.					
iii. If a sea turtle is entangled in the net, stop net roll as soon as the turtle comes out of the water; disentangle the turtle without injuring it before resuming the net roll; and	Y	Y	Y	Y	Y ¹⁵⁰
to the extent practicable, assist the recovery of the turtle before returning it to the water.	Y	Y			
iv. Carry and employ dip nets, when appropriate, to handle turtles.	Y ¹⁵¹	Y ¹⁵²	Y	Y	Y ¹⁵³
b. Require that operators of such vessels record all incidents involving sea turtles during fishing operations and report such incidents to the appropriate authorities of the CCM.					
c. Provide the results of the reporting under paragraph 5(b) to the Commission as part of the reporting requirement of paragraph 2.					
d. Provide to the Commission the results of any research related to the development of modified FAD designs to reduce sea turtle entanglement and take measures to encourage the use of designs found to be successful at such reduction.					
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 that are to be developed and provided to all CCMs by the Secretariat. CCMs shall also ensure that operators of such vessels are, where appropriate, required to carry and use dip-nets in accordance with these WCPFC guidelines.	Y	Y	Y	Y	Y

¹⁴⁹ “New Zealand ensures that authorised fishers use the mitigation and handling techniques laid out in the FAO guidelines.”

¹⁵⁰ “New Zealand ensures that authorised fishers use the mitigation and handling techniques laid out in the FAO guidelines. This is implemented through the New Zealand high seas permit conditions. SBT not caught by NZ purse seine vessels.”

¹⁵¹ “The use of dip nets is not mandatory however the reporting requirements are.”

¹⁵² “Information provided when available.”

¹⁵³ “New Zealand’s high seas permit conditions require that all permit holders carry, and employ when appropriate, dip nets to handle turtles. All sea turtle captures/incidents are required to be reported to the NZ authorities.”

Relevant requirements of WCPFC CMM 2008-03 Conservation and management of sea turtles	AU	EU	ID	JP	NZ
8. CCMs with longline fisheries other than shallow-set swordfish fisheries are urged to: a. Undertake research trials of circle hooks and other mitigation methods in those longline fisheries. b. Report the results of these trials to the SC and TCC, at least 60 days in advance of the annual meetings of these subsidiary bodies.		Y	N		

2.5 Compliance with Other Measures

Table 29: Cetaceans – Fishing in the IOTC Convention Area

Relevant requirements of IOTC Resolution 13/04 On the conservation of cetaceans	AU	EU	ID	JP	KR	TW	ZA
2. Contracting Parties and Cooperating Non-Contracting Parties (collectively, CPCs) shall prohibit their flagged vessels from intentionally setting a purse seine net around a cetacean in the IOTC area of competence, if the animal is sighted prior to the commencement of the set.	Y	Y ¹¹¹	Y	Y	Y	n/a ¹¹⁷	Y ¹⁴⁰
3. CPCs shall require that, in the event that a cetacean is unintentionally encircled in a purse seine net, the master of the vessels shall: a) take all reasonable steps to ensure the safe release of the cetacean, while taking into consideration the safety of the crew. These steps shall include following the best practice guidelines for the safe release and handling of cetaceans developed by the IOTC Scientific Committee; b) report the incident to the relevant authority of the flag State, with the following information: i. the species (if known); ii. the number of individuals; iii. a short description of the interaction, including details of how and why the interaction occurred, if possible; iv. the location of the encirclement; v. the steps taken to ensure safe release; vi. an assessment of the life status of the animal on release, including whether the cetacean was released alive but subsequently died.	Y	_ ¹¹¹	Y	Y	Y	n/a ¹¹⁷	Y ¹⁴⁰
4. CPCs using other gear types fishing for tuna and tuna-like species associated with cetaceans shall report all interactions with cetaceans to the relevant authority of the flag State and include all the information outlined in paragraph 3b(i–vi).	Y	_ ¹¹¹	Y	Y	Y	n/a ¹⁵⁴	Y ¹⁵⁵
5. CPCs shall adopt Fish Aggregating Device designs that reduce the incidence of entanglement, according to Annex III of Resolution 13/08 (or any subsequent revision).	Y	_ ¹¹¹	N ^{84,119}	Y	Y	n/a ¹¹⁷	Y ¹⁴¹

¹⁵⁴ “According to paragraph 9 of IOTC Resolution 13/04, Taiwan has national legislation for protecting the species and shall be exempt from reporting to IOTC.”

¹⁵⁵ “Data collection on live releases and discards required as per permit conditions.”

7. CPCs shall report the information and data collected under paragraph 3(b) and paragraph 4, through logbooks, or when an observer is onboard through observer programs, and provide to the IOTC Secretariat by 30 June of the following year and according to the timelines specified in Resolution 10/02 (or any subsequent revision).	Y	- ¹¹¹	Y	Y	Y	n/a ¹⁵⁴	Y ¹⁵⁵
8. CPCs shall report, in accordance with Article X of the IOTC Agreement, any instances in which cetaceans have been encircled by the purse seine nets of their flagged vessels.	Y	- ¹¹¹	Y	Y	Y	n/a ¹¹⁷	Y ¹⁴⁰

Table 30: Prohibition of large scale driftnets – Fishing in the IOTC Convention Area

Relevant requirements of IOTC Resolution 17/07 On the prohibition to use large-scale driftnets in the IOTC area	AU	EU	ID	JP	KR	TW	ZA
2. The use of large-scale driftnets on the high seas within the IOTC area of competence shall be prohibited. The use of large-scale driftnets in the entire IOTC area of competence shall be prohibited by 1 January 2022.	Y	Y	n/a	Y	Y	Y	Y ¹⁵⁶
3. Each Contracting Party and Cooperating Non-Contracting party (hereinafter referred to as CPCs) shall take all measures necessary to prohibit their fishing vessels from using large-scale driftnets while on the high seas in the IOTC area of competence. They shall take all measures necessary to prohibit their fishing vessels from using large-scale driftnets in the entire IOTC area of competence by 1 January 2022.	Y	Y	n/a	Y	Y	Y	Y ¹⁵⁶
6. CPCs shall include in their Annual Reports of implementation a summary of monitoring, control, and surveillance actions related to large-scale driftnet fishing in the IOTC area of competence.	Y	Y ^{84, 157}	n/a	Y	n/a	Y	Y ¹⁵⁶

¹⁵⁶ “The use of large-scale driftnets prohibited in this sector.”

¹⁵⁷ “This measure is fully transposed for several years in the EU law.”

Table 31: Prohibition of large scale driftnets – Fishing in the WCPFC Convention Area

Relevant requirements of WCPFC CMM 2008-04 Conservation and Management Measure to prohibit the use of large scale driftnets on the high seas in the Convention Area	AU	EU	ID	JP	NZ
1. The use of large-scale driftnets on the high seas within the Convention Area shall be prohibited and such nets shall be considered prohibited fishing gear, the use of which shall constitute a serious violation in accordance with Article 25 of the Convention.	Y	Y	n/a	Y	Y
2. CCMs shall take all measures necessary to prohibit their fishing vessels from using large-scale driftnets while on the high seas in the Convention Area.	Y	Y	n/a	Y	Y
5. CCMs shall include in Part 2 of their Annual Reports a summary of monitoring, control, and surveillance actions related to large-scale driftnet fishing on the high seas in the Convention Area.	Y	N	n/a	Y	Y

2.6 ERS Data Requirements

Table 32: Bycatch and Discard Data in the ICCAT Convention Area

Relevant requirements of ICCAT Recommendation 2011-10 On information collection and harmonisation of data on bycatch and discards in ICCAT fisheries	EU	JP	KR	TW	ZA
1. Notwithstanding other data collection and reporting programs and requirements adopted by ICCAT and noting continued obligations to fulfill those requirements, in particular those of Recommendation 10-10:					
a) Contracting Parties and Cooperating non-Contracting Parties, Entities and Fishing Entities (CPCs) shall require the collection of bycatch and discard data in their existing domestic scientific observer programs and logbook programs;	Y	Y	Y	Y	Y ¹⁵⁸
b) CPCs that wish to employ an alternative scientific monitoring approach for vessels <15 meters, as specified in paragraph 1b) of Recommendation 10-10, shall describe their alternative approach as part of the observer program report that is due to the SCRS on July 31, 2012 (as required by paragraph 5 of Recommendation 10-10).	n/a ¹⁵⁹	n/a	n/a ¹⁶⁰	n/a ¹⁶¹	N
c) For artisanal fisheries that are not subject to ICCAT's minimum standards for scientific observer programs (Recommendation 10-10) or recording of catch requirements (Recommendation 03-13) CPCs shall implement measures to collect bycatch and discard data through alternative means and describe these efforts in their Annual Reports, beginning in 2012. The SCRS shall evaluate these measures in 2013 and provide advice to the Commission on this matter;	- ¹⁵⁹	n/a	n/a	n/a ¹⁶²	Y ¹⁶³
d) CPCs shall report the bycatch and discard data collected under paragraphs 1a and b to the Secretariat in the format specified by SCRS, in accordance with existing deadlines for data reporting;	Y	Y	Y	Y	¹⁶⁴
e) CPCs shall report on steps taken to mitigate bycatch and reduce discards, and on any relevant research in this field, as part of their Annual Reports, beginning in 2012;	Y	Y	Y	Y	¹⁶⁵

¹⁵⁸ "Discard data collected as per permit conditions from logbooks. No observer data collected for local vessels."

¹⁵⁹ "No vessels <15 m. operating in South Atlantic."

¹⁶⁰ "All Korea fleets >15 meters."

¹⁶¹ "We do not have any vessel with length overall less than 15 meters operating in the ICCAT Convention Area."

¹⁶² "We do not have artisanal fisheries in the ICCAT Convention Area."

¹⁶³ "Permit conditions stipulate that 20% of discharge of small bait boat type vessels in port is observed."

¹⁶⁴ "Discard data collected as per permit conditions from logbooks."

¹⁶⁵ "Included in annual report?"