



CCSBT-ERS/2406/09

Progress on the CCSBT Multi-Year Seabird Strategy (ERSWG Agenda Item 8)

1. Background

The Ecologically Related Species Working Group commenced development of the [CCSBT Multi-Year Seabird Strategy](#) (hereinafter “Seabird Strategy”) at its ERSWG 12 meeting in 2017. In 2022, ERSWG 14 presented a draft Seabird Strategy to the EC to adopt.

Subsequently, the EC 29 in 2022 adopted the Seabird Strategy and published it through [the CCSBT website](#).

The Seabird Strategy specifies that, as a part of the Implementation and Evaluation section, “*the progress of the Seabird Strategy will be evaluated at intervals of no more than four years, with the plan revised as appropriate*”.

This paper summarises the progress made so far to actions specified in the Seabird Strategy and provides suggested next steps to each action for the ERSWG 15’s consideration.

2. Progress of each Action Item of the Seabird Strategy

The Seabird Strategy includes a table with specific actions to be undertaken against each of the objectives along with the timeframe to achieve the overall objectives of the Seabird Strategy.

In advance of the ERSWG 15 meeting, Members, ACAP¹ and BirdLife International were asked to provide the current status/progress made and possible next steps to each action.²

The Secretariat compiled the feedback from Members, ACAP and BirdLife International and also provided suggested actions into a table, which is shown in **Attachment A**.

3. Additional contexts of ongoing activities within CCSBT related to the Seabird Strategy Actions

1) [CCSBT Strategic Plan for 2023 – 2028](#) (ERSWG Agenda Item 6)

CCSBT adopted the “[Strategic Plan for the Commission for the Conservation of Southern Bluefin Tuna 2023 – 2028](#)” (hereinafter “Strategic Plan”), which includes an implementation plan of recommendations from the [2021 CCSBT Performance Review](#).

¹ Agreement on the Conservation of Albatrosses and Petrels.

² ACAP and BirdLife International were requested to provide its input as some items in the Action table specifies them as the responsible body for implementation of these actions.

Toward the adoption of the Strategic Plan, ERSWG 14 considered all ERSWG-related Performance Review recommendations (shown in [CCSBT-ERS/2203/08](#)) and made specific recommendations to the EC for their consideration (paragraphs 106 – 109 of the [ERSWG 14 report](#)). Australia led intersessional discussions and the development of a draft Strategic Plan for the Sixth Meeting of the Strategy and Fisheries Management Working Group (SFMWG 6), held in Tokyo, Japan, in July 2023.

The Strategic Plan specifies “*Addressing the impact of SBT fisheries on non-target species that belong to the same ecosystem, in particular seabirds*” as one of the key challenges of CCSBT, and also specifies “*strategies concerning stock rebuilding, allocation and ecologically related species*” as one of the items under “Management of SBT” that is a part of the Vision and Goals of the Strategic Plan.

2) Spatially Explicit Fisheries Risk Assessment (ERSWG Agenda Item 5.1, 8 and 9)

A Spatially Explicit Fisheries Risk Assessment (SEFRA) framework estimates the risk to seabirds (and other protected species) from commercial fishing, and this approach is designed to accommodate multiple species and fisheries simultaneously ([CCSBT-ERS/2203/13](#)).

ERSWG 14 specified in its work program to “*Conduct the SEFRA as an ERSWG collaborative assessment in the areas of data provision, model development and examination of model robustness*” as intersessional work prior to ERSWG 15.

Since ERSWG 14, New Zealand has led work in collaboration with Australia, Japan and Taiwan through email correspondences, two hybrid Technical ERSWG meetings (21-22 June 2023 and 27-29 February 2024) and online SEFRA workshops (on 10 January 2024, 8 February 2024 4 April 2024 and 23 April 2024).

The output from intersessional SEFRA work since 2022 is submitted to the ERSWG 15 as [CCSBT-ERS/2406/13](#).

The discussion on SEFRA outputs at the upcoming ERSWG 15 (Agenda Item 5.1.3 and 5.1.4) may be relevant in the determination of next steps for Seabird Strategy Actions 1A, 1D, 1E, 1F, 2F, 2A, 3C, 3D and 5B.

3) Electronic Monitoring (ERSWG Agenda Item 7.1)

The CCSBT held a virtual workshop on EM/S (EM workshop) between 17 and 18 May 2023. Subsequently, EC 30 adopted the “[High Level Electronic Monitoring/Systems \(EM/S\) Guiding Principles for CCSBT](#)” (hereinafter “EM Guideline”), which set out definitions of EM and EMS, a variety of objectives, along with security, privacy, and confidentiality considerations.

Some Members have already taken steps to incorporate EM into their fisheries management systems. Australia has implemented compulsory EM in the Eastern Tuna and Billfish Fishery (ETBF) and the Western Tuna and Billfish Fishery (WTBF) and has committed to the future use of EM in other fisheries. New Zealand is also implementing EM across several fisheries including its tuna surface longline fleet.

The discussion on EM at ERSWG 15 may be relevant in the determination of next steps for Seabird Strategy Actions 1B, 2C, 2D, 2G, 4B, 4C, and 5A.

4) Scientific Observer Program Standards (ERSWG Agenda Item 7.2)

In conjunction with the EM Guideline, at the EM workshop in 2023, the Secretariat suggested conducting a detailed analysis of the CCSBT Scientific Observer Programs Standards (SOPS) to determine which information can be directly collected and/or derived from EM/S data. Members were recently requested to provide feedback on the following

- which of the data elements specified within Attachment 1 of CCSBT's SOPS can potentially be collected by or derived from EM/S or collected by alternative methods;
- at what point the information might be collected; and
- whether it remains necessary to collect each data element currently listed.

The outcome from this activity, in relation to ERS data, is submitted to the ERSWG 15 meeting as CCSBT-ERS/2406/08. ESC 29 will undertake a similar analysis of non-ERS data.

The discussion on SOPS at ERSWG 15 may be relevant in the determination of next steps for Seabird Strategy Actions, such as 2C and 2G.

5) Common Oceans Seabird Project (ERSWG Agenda Item 9)

The project on enhancing education on and implementation of Ecologically Related Species seabird measures within CCSBT Fisheries (hereinafter the "Seabird Project") commenced in March 2022, funded by the FAO-GEF Project "Sustainable Management of Tuna Fisheries and Biodiversity Conservation in the Areas Beyond National Jurisdiction (ABNJ)". The Seabird Project includes four elements below:

- (1) Education and Outreach about seabird bycatch mitigation to industry;
- (2) Capacity building to enhance monitoring of seabird bycatch and mitigation use;
- (3) Innovation of automated systems to enable fishery managers to monitor automatically vessel-level implementation of seabird bycatch mitigation measures; and
- (4) Update global seabird risk assessment to conduct a repeat assessment of the 2016 global seabird risk assessment.

As a part of the Seabird Project, the following events have been/will be held:

- Workshops on seabird bycatch mitigation in Japan (19 and 21 February 2024, Shizuoka and Kesenuma, Japan) – Element 1
- Electronic Monitoring consultation in New Zealand (4 March 2024, Wellington, New Zealand) – Element 3
- Electronic Monitoring Inception Workshop (6 – 7 March 2024, Canberra, Australia) – Element 3
- Train the trainer workshop in Japan (3 June 2024, Tokyo, Japan) – Element 2

The latest status of the Seabird Project is reported to the ERSWG 15 meeting as CCSBT-ERS/2406/10.

The Seabird Project may be relevant in the determination of next steps for Seabird Strategy Actions, such as 1E, 2H, 3A, 4B, 5B and 5E.

6) CCSBT Compliance Action Plan and the Corrective Actions Policy

Following the discussion at the CC 18 meeting in 2023, Members have formed the intersessional correspondence group to discuss a draft Compliance Action Plan (CAP) and the [Compliance Policy Guideline 3 \(CPG3\) – Corrective actions policy](#).

The draft revised CAP and CPG3 will be presented at CC 19 this year, and these instruments could affect the implementation of the Seabird Strategy Action 2I, 3A, 3B, 4A, 4B and 4C.

4. Proposed actions by ERSWG 15 on the Seabird Strategy

The Secretariat would like to propose the ERSWG:

- (1) To review the reported progress, next steps and suggested actions for each action in **Attachment A**;
- (2) To consider the required amendments to actions under the Seabird Strategy as appropriate;
- (3) Where appropriate, reflect required actions into the ERSWG work program; and
- (4) Where appropriate, refer actions to other CCSBT subsidiary bodies.

Prepared by the Secretariat

Current status and suggested Next Step to the Seabird Strategy Actions

(Suggestions and comments from Members, Cooperating Non-Members and Observers under “Current Status” and “Next Steps” in black, Secretariat’s suggestions in red)

<i>Objective 1: To reduce the level of impact of seabird bycatch by SBT fishing operations on seabird populations.</i>				<i>Current Status</i>	<i>Next Step</i>
No.	Action	Action by	Timeframe		
1A	To agree on a SBT seabird bycatch target for reducing the level of impact of SBT fishing operations on seabird populations, including, but not limited to: a. Targets based on nominal reported seabird bycatch rates. b. Targets based on SEFRA outputs.	ERSWG	ERSWG 16 ¹⁵	<ul style="list-style-type: none"> Secretariat not aware of activities in this area other than those related to SEFRA update. 	<ul style="list-style-type: none"> Suggest this be deferred until ERSWG16. To be discussed at ERSWG15, based on revised SEFRA outputs Increase Observer Coverage: Without 100% observer coverage, there is no way to know if any target is exceeded, also ID of species is not robust enough to ensure that SEFRA outputs for risk match species caught. Develop corrective actions for breaching target. [Suggested Action: ERSWG 15 considers the output from SEFRA and the information submitted to the meeting, then Technical ERSWG in 2025 give initial discussion to this item based on the guidance from ERSWG 15 and EC so that ERSWG 16 in 2026 can make a recommendation to EC]
1B	That a minimum level of 10% observer coverage is achieved on a fleet-by-fleet basis for SBT fisheries or a comparable minimum level of review of video footage collected using electronic monitoring	CCSBT Members	Ongoing	<ul style="list-style-type: none"> Assessed by CC every year (latest: CCSBT-CC/2310/05). Target not currently met by all Members. 	<ul style="list-style-type: none"> Increase observer coverage. [Suggested Action: Members achieve the target coverage. CC/EC continues assessment and considers corrective actions.]
1C	Evaluate the effectiveness of the seabird CMMs introduced around 2005 by tuna RFMOs, in the context of reducing the overall seabird mortalities, taking into consideration fleet differences and seabird distributions and identify the areas for improvement. The outcomes from the evaluation will be communicated across tuna RFMOs and used as a basis	ERSWG	Within 2 years, after that e Every 5 years	<ul style="list-style-type: none"> Taiwan will present to ERSWG 15, the results of its studies with SBT targeting vessels on the effectiveness of combined mitigation measures, such as use of tori line, weighted branch-lines, and nighttime setting. Japan has previously presented paper CCSBT-ERS/2203/11 on Preliminary result of effectiveness of seabird mitigation measures by Japanese observer data in 2018-2020. Paper CCSBT-ERS/2203/Info 01 Pelagic 	<ul style="list-style-type: none"> Based on the literature available, we suggest as an info paper: “Towards mitigation of seabird bycatch: Large-scale effectiveness of night setting and Tori lines across multiple pelagic longline fleets” https://doi.org/10.1016/j.biocon.2020.108642. This was presented in ACAP’s SBWG as an Information paper. Conduct a meta-analysis for CMM effectiveness across CCSBT members.

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	for future evaluations.			<ul style="list-style-type: none"> Longline Setting – How day/night straddling sets impact monitoring, compliance and effectiveness of seabird bycatch mitigation was submitted by HSI to ERSWG 14. ACAP Best practice advice for mitigating seabird bycatch reviews all available scientific data on measures and provides advice to each RFMO on an annual basis. BirdLife RFMO review project to evaluate seabird engagement. 	<ul style="list-style-type: none"> NZ is coordinating a collaborative review of WCPFC CMM-2018 over the course of 2024. Birdlife is conducting an RFMO historical review on seabird measures in RFMOS and would seek support from the ERSWG on this activity. <p>[Suggested Action: ERSWG 15 considers documents submitted related to this item. If required, include actions into the ERSWG work program.]</p>
1D	Agree on the list of priority species and corresponding management targets, taking into account the status of seabird population, distributional overlaps with SBT fisheries, and significance of SBT fisheries in their mortality.	ERSWG, CCSBT	Within 2 years ERSWG 16 (if required)	<ul style="list-style-type: none"> SEFRA work currently focused on list of 27 priority species. ACAP are contributing to the NZ-led review of SEFRA biological parameters for ACAP-listed species. Inputs and review from ACAP is ongoing 	<ul style="list-style-type: none"> ACAP & NZ are undertaking review of biological parameters for the 27 species currently in assessment. Suggest agenda item at ERSWG15 to propose expanded list for subsequent update to the SEFRA. <p>[Suggested Action: ERSWG 15 considers the output from SEFRA and the information submitted to the meeting. If required, include actions into the ERSWG work program]</p>
1E	Update SEFRA seabird risk assessment to evaluate the progress in seabird bycatch mitigation by SBT fisheries and their impacts on seabird populations from the previous assessment in 2019. The results to be communicated across tuna RFMOs.	ERSWG	ERSWG 15, after that every 2 years	<ul style="list-style-type: none"> SEFRA work is ongoing. Process toward collaborative analysis was agreed. SEFRA model revision and inputs data update currently ongoing. 	<ul style="list-style-type: none"> ERS Intersessional meeting to be held in Wellington on the 27, 28th and 29th of February. Results to be presented to ERSWG15 in June. The first model run is expected in February 2024. Consideration of how this SEFRA work fits with the broader seabird bycatch risk assessment to be undertaken as part of Common Oceans II, and how it can be used in conjunction with 2016 risk assessment, is it possible given the changes to the modelling approach? <p>[Suggested Action: Current action be concluded at ERSWG 15. Include required actions toward the next risk assessment into the ERSWG work program. Next SEFRA update could be a part of the Seabird Project Element 4 activity.]</p>
1F	Establish a robust definition of <i>high risk</i> areas that takes into account the precautionary approach by:	ERSWG, CCSBT	Within 2 years ERSWG 16 (or earlier)	<ul style="list-style-type: none"> Secretariat not aware of any activities specific to this area other than ongoing SEFRA work. 	<ul style="list-style-type: none"> New Zealand to present outputs from Risk Atlas using the New Zealand domestic risk assessment for seabirds. Seek feedback from ERSWG15 as to

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	<ul style="list-style-type: none"> • Establishing a definition of <i>high-risk</i> areas. • Identifying areas that meet the definition. • Characterising the nature of the risk in each area. • Developing tailored measures aimed at reducing those risks. 				<p>how this could be used for the outputs of the collaborative risk assessment to address b and c.</p> <ul style="list-style-type: none"> • To be discussed and agreed at the ERSWG15, based on SEFRA outputs. • Once high-risk areas are identified, development of measures to restrict fishing either spatially and/or temporally to mitigate seabird mortality. <p>[Suggested Action: ERSWG 15 considers the output from SEFRA and the information submitted to the meeting. If required, include actions into the ERSWG work program]</p>

<i>Objective 2: To ensure the collection of timely, reliable, representative data to support accurate regular estimations of total seabird mortality in SBT fisheries and its impact on seabird populations.</i>				<i>Current Status</i>	<i>Next Steps</i>
No.	Action	Action by	Timeframe		
2A	Define improved protocols for reporting and analysing fishing effort data in the context of estimating seabird bycatch and its impacts on seabird populations, including concerning any implicit assumptions used when raising data.	ERSWG	Within 2 years <u>ERSWG 16 (if required)</u>	<ul style="list-style-type: none"> The CCSBT’s standard for the reporting of fishing effort was set in 2003. The requirements for Catch and Effort data for the 2004 Data Exchange notes “A template showing the required information was provided in Attachment B of CCSBT-ESC/0309/16”. In that document for both Aggregated Catch and effort data and Shot by Shot data, it is noted that (item 1 of the notes) “This information should be recorded for all commercial fishing that targeted SBT, or that caught SBT while targeting other species”. 	<ul style="list-style-type: none"> ACAP can present here the ACAP Guidelines for collecting and reporting seabird bycatch as an Info papers. Maybe we can revise/update our doc before the ERSWG meeting. ACAP is undertaking intersessional work on our own bycatch data collection, reporting and indicators and that we can provide an update following AC14 (August 2024). <p>[Suggested Action: ERSWG 15 determines if any revision to the current definition indicated in “Current Status” column is required. If required, include actions into the ERSWG work program]</p>
2B	Report and disseminate annually numbers of incidentally caught seabirds by species according to agreed reporting standards, total and observed effort, and mitigation use, according to agreed formats and strata.	CCSBT Members, Secretariat	Annually	<ul style="list-style-type: none"> All Members except South Africa provided ERSWG Data Exchange in 2023. Data are collated and reported to CC/EC as CCSBT-CC/2310/05. 	<ul style="list-style-type: none"> Continuously report data via ERSWG Data Exchange. Suggest: Establish verification system for data reported to the Commission. (may not be appropriate for BLI to be involved) <p>[Suggested Action: ERSWG 15 determines if any revision to the current ERSWG Data Exchange requirements is required. If required, include actions into the ERSWG work program]</p>
2C	Explore options for the use of electronic monitoring systems by: <ul style="list-style-type: none"> a. Including seabirds (and other ERS) in discussions and the development of electronic monitoring systems. b. Considering electronic monitoring systems that contribute to, among other things, the effective monitoring of the implementation 	ERSWG, CC, SC, ACAP, other tuna RFMOs	Within 3 years <u>ERSWG 16 (if required)</u>	<ul style="list-style-type: none"> EC 30 adopted the High Level EM/S Guiding Principles for CCSBT. Members to provide their view on availability through EM and necessity/actual usage of ERS related SOPS data requirement. ACAP presented to TCWG3 ACAP’s guidelines on EM, which relate specifically to seabird bycatch monitoring. ACAP highlighted to CC19 our willingness to provide advice from ACAP experts to any further review of observer/EM data collection standards in relation to seabird bycatch. 	<ul style="list-style-type: none"> Assess whether the minimum standards being adopted by other RFMOs will collect the data they require on seabird bycatch mitigation measures and bycatch levels itself? Do they adopt other RFMO EM standards like CMMs or have their own? For example, ICCAT EM min standards will not enable bycatch levels to be assessed as the data will be recorded by a camera that won’t capture this. Assessment of what implications are for the CCSBT seabird strategy <p>[Suggested Action: ERSWG 15 considers the outcome from pre-meeting work related to EM and SOPS data requirements. If required, include actions</p>

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No.	Action	Action by	Timeframe		
	of seabird mitigation measures, and seabird interaction levels, throughout SBT fisheries.				into the ERSWG work program noting that EC 31 in 2024 may provide specific direction on this matter to the ESC and ERSWG]
2D	Explore methodologies and techniques for estimating seabird mortalities in a timely and reliable manner, based on best available information and technologies, and not limited to observers and electronic monitoring.	CCSBT Members	Ongoing	<ul style="list-style-type: none"> Secretariat not aware of activities in this area other than those related to EM. 	<ul style="list-style-type: none"> As noted under 2A, ACAP is undertaking intersessional work on our own bycatch data collection, reporting and indicators and we can provide an update following AC14 (August 2024). Review estimates produced as part of collaborative risk assessment at ERSWG 15. <p>[Suggested Action: ERSWG 15 determines if any revision and/or addition to the current ERSWG Data Exchange requirements is required. If required, include actions into the ERSWG work program]</p>
2E	Agree on the CCSBT standard protocols for collecting feather samples and photographing dead bycaught seabirds, based on ACAP guidance.	ERSWG	ERSWG 15 ERSWG 16 (if required)	<ul style="list-style-type: none"> Secretariat not aware of any actions taken to date. Australian govt program that is evaluating the use of feather samples to ID bycatch to the species level using DNA. 	<ul style="list-style-type: none"> ACAP is interested in contributing to any work on CCSBT protocols. To be discussed among specialists during the intersessional tech. meeting in future. <p>[Suggested Action: ERSWG 15 determines if any actions should be included into the ERSWG work program (Important note: ACAP has issued warnings about global bird-flu pandemic). If any action is agreed, ERSWG 15 also determines the leading Member to develop a draft protocol]</p>
2F	Review observer coverage of each stratum and fishing fleet to identify gaps and where additional coverage is needed concerning seabird bycatch.	CCSBT Members	At each ERSWG	<ul style="list-style-type: none"> Information on observer coverage and seabird bycatch presented to CC every year (latest: CCSBT-CC/2310/05). ERSWG has also been tasked with reviewing methodology to determine representativeness. 	<ul style="list-style-type: none"> Review diagnostics of spatial fit of the collaborative risk assessment at ERSWG 15 to assess whether these are suitable to identify gaps and where additional coverage is needed to more accurately estimate risk. Increase observer coverage: At the current level of 10% coverage, it is not possible to do this action. <p>[Suggested Action: ERSWG 15 reviews diagnostics of spatial fit of the collaborative risk assessment (SEFRA) to assess whether these are suitable to</p>

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No.	Action	Action by	Timeframe		
					identify gaps and where additional coverage is needed to more accurately estimate risk]
2G	Update guidance for observers to include electronic monitoring seabird related task priorities including how to allocate time appropriately, recognising the multiple tasks undertaken, where applicable.	ERSWG	<u>By ERSWG 165 (if required)</u>	<ul style="list-style-type: none"> SOPS was revised in 2022 to accommodate use of EM. Guidance for observers typically developed by a Member's relevant domestic agency. 	<ul style="list-style-type: none"> Ensure data collection is fit for purpose to ensure data on seabird bycatch and MM is collected in an appropriate way. Also see comment in 2C. <p>[Suggested Action: ERSWG 15 considers the outcome from pre-meeting work related to EM and SOPS data requirements. If required, include required actions into the ERSWG work program for Members to reflect the agreed outcome into domestic protocols, taking account of the agreement by EC on EM]</p>
2H	Review procedures and protocols to facilitate improved reporting of seabird interactions to species level by: <ul style="list-style-type: none"> a. Consistent reporting of seabird interactions across SBT fishing fleets. b. Removing any ambiguity about species groupings. 	ERSWG, CC, BirdLife International	Within 2 <u>years 2024 and 2025</u> , after that every 5 years (if required)	<ul style="list-style-type: none"> The CCSBT Seabird Project will develop training for observers and compliance officers, train domestic trainers, and collaborate with Members to deliver those trainings, commencing in the second quarter of 2024 	<ul style="list-style-type: none"> ACAP is also interested in participating, depending on availability, in at least some of the training workshops. ACAP has some useful docs and material presented in previous training workshops which could be relevant. Establish a programme to encourage members to take an active role in facilitating the training as part of the seabird project. This is going to require tools such as samples for DNA analysis, photographs, ID training and guides and observer reports of interactions. BLI would participate in such activities. <p>[Suggested Action: Members utilise the CCSBT Seabird Project for domestic training programmes]</p>
2I	Consider options for the use of fishing vessel logbook records of seabird interactions by examining the potential for logbook records to supplement other seabird interaction information sources, where appropriate.	ERSWG, CC, ACAP, other tuna RFMOs	Within 3 <u>years ERSWG 16</u>	<ul style="list-style-type: none"> CC 18 report para 26: <ul style="list-style-type: none"> ➢ [Australia] The Australian data in CC18-05, Attachment 2, Table 1 reflect these obligations and based on logbook data, the proportion of sets deployed at night. ➢ [Japan] Using logbook data to report ERS interactions significantly changes the current reporting system in CCSBT and 	<ul style="list-style-type: none"> Data fields for reporting in the WCPFC are under review/amendment currently, this should be considered in how it can be harmonised across the RFMOs and how the CCSBT will require reporting to be done. <p>[Suggested Action: Revisit this point at ERSWG 16 taking account of the agreements in WCPFC, IOTC and/or ICCAT]</p>

<i>Objective 2:</i> To ensure the collection of timely, reliable, representative data to support accurate regular estimations of total seabird mortality in SBT fisheries and its impact on seabird populations.				<i>Current Status</i>	<i>Next Steps</i>
No.	Action	Action by	Timeframe		
				would need to be further examined in CCSBT.	

<i>Objective 3: To develop and refine, in collaboration with industry and ACAP, practical, cost-effective and safe seabird bycatch mitigation technologies and techniques.</i>				<i>Current Status</i>	<i>Next Steps</i>
No.	Action	Action by	Timeframe		
3A	Encourage CCSBT Members to undertake and support research and development to refine practical, cost-effective and safe seabird bycatch mitigation technologies and techniques.	CCSBT Members	Ongoing	<ul style="list-style-type: none"> • Secretariat not aware of any activities in this area. • Taiwan conducted tori line experiments in the southern Indian Ocean and Pacific Ocean. In 2021, two Taiwanese vessels didn't encounter any seabird bycatch in a two-month period in the southern Indian Ocean. As for the Pacific Ocean, the ratio of seabird bycatch is 0.07 to 0.63 per thousand hooks. This result was from three Taiwanese vessels in a three-month period. • NZ is conducting comprehensive research projects on mitigation projects, including 1) identifying ways to increase the effectiveness of haul mitigation devices and/or steps to further achieve wider uptake of these devices in longline fisheries, 2) evaluating effects of hook size and bait type on seabird bycatch rates across different target fisheries, 3) improving seabird bycatch mitigation during pelagic soak periods, and further evaluating hook-shielding devices in longline fisheries • NZ govt EARs project • HSI: Procella Heavy hook development • Taiwan/DOC – hookpod trials in development 	<ul style="list-style-type: none"> • ACAP will present its latest best practice updates for pelagic longlines to ERSWG 15 • ACAP is actively supporting bycatch mitigation development through our Small Grants programme, and we can report back any PLL relevant project outcomes. <p>[Suggested Action: Members continue (or increase when necessary) their effort to this action]</p>
3B	Advocate for strengthened seabird CMMs relevant to SBT fisheries within tuna RFMOs, where appropriate, taking account of, among other things, the best practice advice provided by ACAP.	CCSBT Members	Ongoing	<ul style="list-style-type: none"> • Secretariat not privy to advocacy of Members at other RFMOs. • ACAP contributes to all the SBT-relevant RFMOs to inform strengthened seabird measures. • New Zealand is leading the review of the WCPFC seabird CMM and has been engaging with other countries to encourage involvement of CCMs in the review process. • Review of CMM2018-03 in the WCPFC 	<ul style="list-style-type: none"> • Once updated measures are in place in these RFMOs, monitoring and compliance assessments need to be established with verification of data submitted to each RFMO. An increase in observer coverage will be needed to achieve this. <p>[Suggested Action: Members continue (or increase when necessary) their effort to this action]</p>

<i>Objective 3: To develop and refine, in collaboration with industry and ACAP, practical, cost-effective and safe seabird bycatch mitigation technologies and techniques.</i>				<i>Current Status</i>	<i>Next Steps</i>
No.	Action	Action by	Timeframe		
				<ul style="list-style-type: none"> • Seabird strategies action plans in CCMLAR • Review of seabird bycatch MM (Rec 11-09 and 07-07) in ICCAT – to be undertaken in 2024. • Development of seabird work plan in IOTC – to be undertaken in 2024. • ACAP updated advice on seabird bycatch mitigation 	
3C	Regularly monitor and identify changes in the spatial overlap of fishing effort for SBT and the distribution of seabird species, particularly threatened albatross and petrel species, and inform the relevant fisheries across tuna RFMOs.	ERSWG	At each ERSWG	<ul style="list-style-type: none"> • Secretariat not aware of any activities in this area. • The SEFRA assessment will be the baseline for identifying critical overlap regions between SBT fishery and protected seabird species. • New Zealand is undertaking an active seabird tracking programme as well as conducting a spatial analysis of existing and new albatross and petrel tracking data. This information will provide essential rationale for RFMO CMM reviews. • BLI / GFW collaboration to evaluate ‘black spots’ where fisheries effort and seabirds overlap. • AoNZ government tracking work - NZ can provide further information on status 	<ul style="list-style-type: none"> • ACAP and BirdLife International are in the process of producing updated species distribution maps for our species assessments. • Review overlap estimates produced as part of collaborative risk assessment at ERSWG 15 [Suggested Action: Continue updating SEFRA as determined in Action 1E. ERSWG keeps related Agenda Items at each ERSWG meeting. Members to present output of SEFRA at other RFMOs]
3D	Assess the cumulative impacts of fishing for SBT on seabirds, particularly threatened albatross and petrel species, across tuna RFMOs including developing methods for extrapolating seabird bycatch levels and seabird bycatch rates to identify total mortalities and total mortality rates.	ERSWG	At each ERSWG	<ul style="list-style-type: none"> • Secretariat not aware of any activities in this area, except for the ongoing SEFRA initiative. • AoNZ government project on multiple threat impacts to the Antipodean Albatross 	<ul style="list-style-type: none"> • Review next steps as part of collaborative risk assessment at ERSWG 15. • Increase observer coverage: This action will require better data collection. [Suggested Action: ERSWG 15 reviews next steps as part of discussion on SEFRA outputs and reflect required activities into the ERSWG work program, including a specific direction to Technical ERSWG.]
3E	Consider the development of protocols on potential management responses to	ERSWG, BirdLife	Within 3 years ERSWG	<ul style="list-style-type: none"> • Secretariat not aware of any activities in this area. 	<ul style="list-style-type: none"> • ACAP would be interested in participating in any development of protocols by ERSWG.

<i>Objective 3: To develop and refine, in collaboration with industry and ACAP, practical, cost-effective and safe seabird bycatch mitigation technologies and techniques.</i>				<i>Current Status</i>	<i>Next Steps</i>
No.	Action	Action by	Timeframe		
	high seabird bycatch events.	International, ACAP	<u>15</u>		<ul style="list-style-type: none"> • Increase observer coverage: This action can only be done with much higher observer coverage. [Suggested Action: ERSWG 15 considers the development of protocols on potential management responses to high seabird bycatch events. If required, reflect specific activity (including a leading Member) into the ERSWG work program for further development]

<i>Objective 4: To develop and refine compliance approaches to ensure fleet-wide compliance with seabird bycatch mitigation measures required while conducting fishing for SBT.</i>				<i>Current Status</i>	<i>Next Steps</i>
No.	Action	Action by	Timeframe		
4A	Collate information from compliance programs of CCSBT Members on implementation of seabird bycatch mitigation measures in SBT fisheries on a fleet-by-fleet basis.	CCSBT Members, Secretariat	Annually	<ul style="list-style-type: none"> Reported to CC every year (latest: CCSBT-CC/2310/05) 	<ul style="list-style-type: none"> Verification of compliance data from members is needed. Improved awareness and capacity for implementing bycatch mitigation is needed. Expanded Port-based outreach in the Pacific will contribute to this, so exploring partnerships to access ports where vessels that fish in the highest risk areas are visiting. Increase observer coverage <p>[Suggested Action: Continue ERSWG Data Exchange regime and reporting to CC by the Secretariat. Clearly note requests from ERSWG to CC in the meeting report, if required]</p>
4B	<p>Review procedures and methods to improve compliance by SBT fishing operators with seabird CMMs and reporting requirements concerning seabird interactions by:</p> <p>a. Reviewing existing procedures and methods, including for in-port and transshipment at-sea inspections, and when other monitoring and surveillance technologies and techniques are used.</p> <p>b. Considering implementation, where appropriate, of additional monitoring and surveillance technologies and techniques.</p>	Members for a and b. CC for c and d based on specific requests by ERSWG 15	Within 2 years 2024 and 2025 for a and b. CC 19 for c and d	<ul style="list-style-type: none"> Compliance of Measures is assessed by CC every year (latest: CCSBT-CC/2310/04 (Rev.1)). Implementation of ERS related measures reported to CC every year (latest: CCSBT-CC/2310/05) The revised CCSBT Compliance Plan and CPG3 (Corrective Action Policy) will be considered at CC19 and EC31 in 2024 and may provide opportunity for CC to support this action. The Seabird Project is of relevance to points a and b. It will provide resources for Members to strengthen national MCS processes in relation to seabird bycatch mitigation, possibly through facilitating the adoption of electronic monitoring systems 	<ul style="list-style-type: none"> Develop a corrective actions policy for non-compliance. In the absence of consequences for failing to implement the measures, there is no incentive (or disincentive) to implement them. Increased observer coverage and verification of compliance is essential to enact corrective actions. <p>[Suggested Action: Members utilise the CCSBT Seabird Project for Action 4B-a and b (The Seabird Project Element 1 – 3 for capacity-building). For Action 4B-c and d, ERSWG 15 considers specific requests to CC for their consideration as inputs to CCSBT Compliance Plan and CPG 3 (Corrective Actions Policy) in the meeting report.]</p>

<i>Objective 4: To develop and refine compliance approaches to ensure fleet-wide compliance with seabird bycatch mitigation measures required while conducting fishing for SBT.</i>				<i>Current Status</i>	<i>Next Steps</i>
No.	Action	Action by	Timeframe		
	<p>c. Considering options for management responses concerning non-compliance.</p> <p>d. Considering the development of options to enable, particularly for high seas SBT fishing fleets, the timely reporting of non-compliance events.</p>				
4C	Review data collection forms and procedures across tuna RFMOs regarding compliance with seabird CMMs by longline fishing operators and develop harmonised format to communicate and advocate across tuna RFMOs.	CC	Within 2 years <u>ERSWG 15 (if required)</u> , after that every 5 years	<ul style="list-style-type: none"> • Process for assessment of compliance with seabird CMMs in other tRFMOs were reported by Japan in 2022 CC (Japan's national report to CC17/EC29, and paragraph 27 of CC17 report) based on the CC's 2021 Workplan. • Secretariat not aware of any action taken to harmonise format. • SOPS data requirements to be reviewed in the context of EM. 	<ul style="list-style-type: none"> • Verification of compliance assessments is needed. • Work towards streamlining data collection forms across RFMOs with regards to ETP species. <i>[Suggested Action: ERSWG 15 determines if any actions should be included into the ERSWG work program. May be addressed by the review of the Compliance Action Plan.]</i>

<i>Objective 5: To enhance education and outreach programs highlighting the importance of mitigating seabird interactions while fishing, and advocating effective implementation of mitigation measures.</i>				<i>Current Status</i>	<i>Next Steps</i>
No.	Action	Action by	Timeframe		
5A	Share documents, formats and procedures for observer and electronic monitoring, seabird bycatch data collection through a centralised portal, e.g. the Bycatch Mitigation Information System hosted by the Western and Central Pacific Fisheries Commission.	Secretariat, BMIS	Ongoing	<ul style="list-style-type: none"> • Done after ERSWG 14. 	[Suggested Action: Secretariat share nominated documents to BMIS after EC 31]
5B	Pursue collaboration across tuna RFMOs in capacity building in seabird bycatch monitoring and analyses.	CCSBT Members, Secretariat	Ongoing	<ul style="list-style-type: none"> • No specific actions were done so far as CCSBT. 	<ul style="list-style-type: none"> • ACAP would be interested in contributing to any collaborative work on improving bycatch monitoring and analyses. • Review next steps as part of collaborative risk assessment at ERSWG 15 • Activities relating to bycatch monitoring and analyses are hampered by low observer coverage. The focus of all tRFMOs should be to increase observer coverage (including EM), so that these data are sufficient to conduct analyses and ascertain compliance levels. Also, there is a need to ensure EM min standards are harmonised as much as possible across RFMOs and ensure seabird bycatch and MM implementation are adequately captured by EMS. <p>[Suggested Action: ERSWG 15 reviews next steps as part of discussion on SEFRA outputs and reflect required activities into the ERSWG work program]</p>
5C	Explore options (if data are available) for the establishment of a reference DNA database for seabird species bycaught during fishing for SBT across tuna RFMOs.	CCSBT Members, ACAP, Seabird Experts	<u>Within 2 years</u> <u>At Technical ERSWG in 2025 (if required)</u>	<ul style="list-style-type: none"> • Secretariat not aware of any activities in this area. • Australia are collecting feathers/tissues for DNA testing for ID – this could be used to facilitate this action. I recall there was a positive response from them at the CCSBT meeting in South Korea. 	<ul style="list-style-type: none"> • To be discussed among specialists during the intersessional tech. meeting in future <p>[Suggested Action: ERSWG 15 makes specific direction to Technical ERSWG on this Action and specify a leading Member]</p>
5D	Support the establishment of a	CCSBT	Within 2 years	<ul style="list-style-type: none"> • Secretariat not aware of any activities in this 	<ul style="list-style-type: none"> • Determine the standard of photo for uploading and

<i>Objective 5: To enhance education and outreach programs highlighting the importance of mitigating seabird interactions while fishing, and advocating effective implementation of mitigation measures.</i>				<i>Current Status</i>	<i>Next Steps</i>
No.	Action	Action by	Timeframe		
	reference photographic database through a centralised portal, e.g. the Bycatch Mitigation Information System (BMIS) hosted by the Western and Central Pacific Fisheries Commission, for seabird species bycaught during fishing for SBT across tuna RFMOs. This may include involving volunteer networks and seabird specialists.	Members, BMIS, Seabird Experts		area.	<p>information submitted with the photos.</p> <ul style="list-style-type: none"> • To be discussed among specialists during the intersessional tech. meeting in future • BirdLife would participate in this. Suggest also dissemination in relevant languages through port-based outreach and existing engagement opportunities. <p>[Suggested Action: ERSWG 15 determines the database specifications (including structure, file type and the standard of photo) and associated network. In ERSWG work program, determine a leading Member and timeframe for further database development.]</p>
5E	Translate ACAP's seabird species identification guide into key languages (e.g. French, Indonesian, Korean, Spanish, and Taiwanese) and disseminate together with the other languages (e.g. English Japanese).	Common Ocean Project II, ACAP	ERSWG 15	<ul style="list-style-type: none"> • Done by ACAP • ACAP's revised edition of the Seabird ID guide is almost finished; we shall proceed to get the translation into Indonesian. 	<ul style="list-style-type: none"> • ACAP also plans to provide for ERSWG15 a list of all our products that are translated into CCSBT languages, showing which are available in which languages. <p>[Done and no suggested actions.]</p>