Commission for the Conservation of
Southern Bluefin Tuna

みなみまぐろ保存委員会

CCSBT–ERSWG/2603/08

Progress Against Actions Assigned to the Compliance Committee in the CCSBT Multi-Year Seabird Strategy
海鳥に関する CCSBT 複数年戦略のうち遵守委員会に割り当てられた行動項目の進捗状況
(ERSWG 議題項目 5.1.5)

1. Background
背景

The CCSBT Multi-Year Seabird Strategy (hereinafter "Seabird Strategy") includes actions that are assigned to the Compliance Committee. These actions are:
海鳥に関するCCSBT複数年戦略（以下「海鳥戦略」という）には、遵守委員会に対して対応が割り当てられた以下の行動事項が含まれているところである。

4B Review procedures and methods to improve compliance by SBT fishing operators with seabird CMMs and reporting requirements concerning seabird interactions by[1]:
以下により、SBT 漁業オペレーターによる海鳥 CMM の遵守及び海鳥相互作用に関する報告要件の遵守を改善するための手続き及び手法をレビューする。

c. Considering options for management responses concerning non-compliance.
非遵守に関する管理上の対応のオプションを検討する。

d. Considering the development of options to enable, particularly for high seas SBT fishing fleets, the timely reporting of non-compliance events.
特に公海 SBT 漁船団に関して、非遵守事案の適時的な報告を可能とするためのオプションの策定を検討する。

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.
はえ縄漁船のオペレーターによる海鳥 CMM の遵守に関して、まぐろ類 RFMO 横断的にデータ収集の様式及び手続きをレビューし、まぐろ類 RFMO 横断的に伝達及び提唱するための調和されたフォーマットを策定する。

The purpose of this paper is to provide a report back to the ERSWG on actions under 4B and to provide an update on work to date related to action 4C.
本文書では、ERSWG に対して行動事項 4B に基づく対応について報告するとともに、行動事項 4C に関する今日までの取組に関するアップデートを提示する。

[1] The Seabird Strategy assigned sub-actions A and B under action 4B to CCSBT Members, so only those actions assigned to the Compliance Committee (sub-actions C and D) are included in this paper. 海鳥戦略の行動事項 4B のうち小項目 A 及び B は CCSBT メンバーに対応が割り当てられているので、本文書には遵守委員会に対して割り当てられた項目（小項目 C 及び D）のみを含めている。

2. **Incorporation of the Seabird Strategy action items to compliance planning processes**
遵守計画プロセスへの海鳥戦略行動事項の取り入れ

Actions 4B and 4C have been allocated different timeframes for completion, with the Seabird Strategy recording consideration of action 4C by ERSWG 17, while the actions under 4B are included for report back at ERSWG 16.
行動事項 4B 及び 4C は設定された実施時期が異なっており、海鳥戦略上、行動事項 4C は ERSWG 17 で検討されるのに対し、行動事項 4B に基づく行動は ERSWG 16 に対して報告することとされている。

The assigned actions were incorporated in the CCSBT Compliance Plan, specifically through actions 10a and 10b of the 2025 to 2029 Compliance Action Plan (CAP). Both CAP actions are aligned with the tasking details and timeframes included in the Seabird Strategy.
CC に割り当てられた行動はCCSBT遵守計画に取り入れられており、具体的には 2025 年から 2029 年を対象とする遵守行動計画（CAP）の行動事項 10a 及び 10b が該当する。CAP の行動事項はいずれも、海鳥戦略に記載された任務の詳細及びスケジュールに沿ったものとなっている。

3. **Report back on action 4B**
行動事項 4B に関する報告

In assigning the actions under ***4B*** to the Compliance Committee, the Seabird Strategy states that Compliance Committee consideration should be "based on specific requests by ERSWG 15". No specific requests relating to these actions were made of Compliance Committee by ERSWG 15.
行動項目 4B に基づく行動を遵守委員会に対して割り当てるにあたり、海鳥戦略においては、遵守委員会による検討は「ERSWG 15 による具体的な要請に基づく」べきこととされている。これらの行動事項に関して、ERSWG 15 から遵守委員会に対して特段の要請はなかった。

   c. *Considering options for management responses concerning non-compliance.*
   非遵守に関する管理上の対応のオプションを検討する。

The Terms of Reference for the Compliance Committee describe the functions of the committee. These functions include that the Compliance Committee will "make recommendations to the Extended Commission on new compliance measures, including measures to address non-compliance and measures to ensure that accurate and timely data is obtained on all fisheries". Therefore, the Compliance Committee already annually considers all identified non-compliance, including concerning seabird interactions, and options to strengthen management responses. There were no specific options for management responses tabled for consideration by CC20. However, there was significant discussion related to the use of ERS mitigation measures at the meeting, with the meeting recognising "the progress that has been made in relation to the use of mandated ERS mitigation measures, while noting the need to improve performance of some Members".
遵守委員会の付託事項には同委員会の機能が記載されている。これらの機能には、「非遵守に対処するための措置及び正確かつ適切なタイミングですべての漁業に関するデータを確実に入手するための措置を含む、新たな遵守措置に関する拡大委員会への勧告を策定」することが含まれる。したがって、遵守委員会は既に、全ての特定された非遵守（海鳥との相互作用を含む）及びこれらに対応するべく管理措置を強化するためのオプションについて毎年検討している。CC 20 による検討に向けて提出された具体的な管理措置のオプションはなかった。しかしながら、CC 20 会合においては ERS 混獲緩和措置の使用状況に関して相当の議論が行われ、会合は「義務付けられて

いる ERS 混獲緩和措置の使用に関して進捗が見られた一方で、一部のメンバーのパフォーマンスを向上させる必要性」を認識した。

d. Considering the development of options to enable, particularly for high seas SBT fishing fleets, the timely reporting of non-compliance events.
特に公海 SBT 漁船団に関して、非遵守事案の適時的な報告を可能とするためのオプションの策定を検討する。

CCSBT has a MCS Information Collection and Sharing Policy (CPG4) and this was updated in 2019 to provide a process and format for sharing of information in cases where a Member has reasonable grounds to suspect a vessel is conducting IUU fishing or fishing activity relating to SBT. The Policy expects Members "to respond to any information received that indicates potential non-compliance, and advise the Member, Port State, coastal State or market State providing the information of the response taken". The Policy also establishes the role for the Secretariat to "provide a confidential pathway for information to be exchanged". It is therefore suggested that this Policy already provides for the timely reporting of non-compliance events.
CCSBT はMCSに関する情報収集及び共有に関する政策（CPG4）を定めており、2019 年には、船舶が SBT に関する IUU 漁業又は漁業活動を行っていると疑うに足る合理的な理由をメンバーが有している場合に情報を共有するためのプロセスを呼びフォーマットを提示する形で同政策が改訂された。同政策において、メンバーは「非遵守の可能性を示唆する情報を受領した際はこれに対応し、また、実施した対応についての情報を、メンバー、寄港国、沿岸国又は市場国に対して通報する」ことが期待されている。また同政策は、事務局に対して「機密が保持される形での情報の交換経路の提供」を行う役割を課している。したがって、本政策は既に非遵守事案の適時的な報告を既に規定しているものと考えられる。

ERSWG16 may wish to consider if there are specific elements related to the reporting of non-compliance events that it may wish the Compliance Committee to consider further strengthening.
ERSWG 16 は、遵守委員会に対してさらなる強化の検討を求めるような、非遵守事案の報告に関する具体的な要素があるかどうかを検討することが望ましい。

4. Work Completed to date on Action 4C
行動事項 4C に関して今日までに完了した取組

Aligned with the requirements of the Seabird Strategy, this action is included in the CCSBT Compliance Plan for delivery in 2027. However, in recognising the extensiveness of this action and to allow sufficient time for Member consideration, the Secretariat commenced work on this action during 2025. The Secretariat worked with the IMCS Network and the other tuna RFMOs (tRFMOs) through the Tuna Compliance Network (TCN) to develop a summary report to support Member consideration of potential opportunities and work required related to this action. This report was presented to CC20 and is included as **Attachment A** to this paper.
本行動事項は、海鳥戦略の要件に合わせて、CCSBT遵守計画において 2027 年に実施する行動として取り入れられている。しかしながら、本件は広範な内容を含む行動事項であることを踏まえ、またメンバーが十分な時間をもってこれを検討することができるよう、事務局は 2025 年に本件への対応に着手した。事務局は、この行動に関連する潜在的な機会及び必要な作業にかかるメンバーの検討に資する総括的な報告書を作成するため、まぐろ遵守ネットワーク（TCN）を通じて IMCS ネットワーク及び他のまぐろ類 RFMO と連携した。当該報告書は CC 20 に対して提出され、また本文書に**別紙 A** として添付した。

The summary report is intended to support Members' review of data collection forms and procedures across tRFMOs, specifically related to compliance with seabird CMMs by longline

fishing operators. This report may also assist ERSWG in its planned analysis of CMM effectiveness across RFMOs (related to Action 1C of the Seabird Strategy).
この総括報告書は、メンバーによるまぐろ類 RFMO 横断的な（特にはえ縄漁船による海鳥 CMM の遵守状況に関する）データ収集様式及び手続きのレビューを支援することを目的としたものである。また当該報告書は、ERSWG が予定している RFMO 横断的な CMM の有効性の解析（海鳥戦略の行動事項 1C に関連）にも寄与する可能性がある。

In developing this report, it was noted that operator level reporting requirements may differ between Members based on a range of factors. However, CCSBT's ERS data exchange and ERSWG reporting obligations do include reporting elements that would encourage and support some uniformity in the data and information collected by operators across all areas where SBT are caught. Therefore, in many areas, these CCSBT requirements may already be providing some level of harmonisation of data collected by CCSBT authorised vessels across the different RFMO areas.
本報告書の作成時において、漁業者レベルでの報告要件は様々なファクターによりメンバー間で異なっている可能性があることが指摘された。しかしながら、CCSBT の ERS データ交換及び ERSWG に対する報告義務には、SBT が漁獲される全ての海域横断的に漁業者によって収集されるデータ及び情報の一定の統一性を奨励及びサポートするための要素が含まれている。したがって、CCSBT における要件の大部分において、異なる RFMO 管轄水域横断的に CCSBT 許可漁船によって収集されるデータは既にある程度の調和が図られているものと考えられる。

Noting that this action is currently scheduled for completion during 2027, ERSWG 16 may wish to consider if there were any specific requests the working group would like to make of the Compliance Committee to inform its ongoing work related to this action.
本行動事項の実施時期は 2027 年とされていることを踏まえ、ERSWG 16 は、遵守委員会に対し、本行動事項に関する継続的な作業に対する基礎情報を得るために具体的な要請を行うかどうかを検討することが望ましい。

5. Proposed actions by ERSWG 16
ERSWG 16 による対応案

The Secretariat would like to propose the ERSWG:
事務局は、ERSWG に対して以下を提案する。

(1) Review the updates provided related to actions 4B and 4C of the Seabird Strategy;
海鳥戦略の行動事項 4B 及び 4C に関して提示されたアップデートをレビューすること。

(2) Review the report included as **Attachment A** to support the delivery of action 4C**;** and
行動事項 4C の実施をサポートする**別紙 A** の報告書についてレビューすること。

(3) Consider if there are any further and specific requests ERSWG 16 would like to make of the Compliance Committee or Secretariat related to these actions.
これらの行動事項に関して、ERSWG 16 から遵守委員会又は事務局に対してさらに具体的な要請を行うかどうかを検討すること。

Prepared by the Secretariat
事務局作成文書

Attachment A

IMCS NETWORK

Seabird Mitigation Measures and associated Data Collection and Procedures across tuna RFMOs

August 2025

1. Summary

The IMCS Network[1] has prepared this report in support of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT). Specifically, this report seeks to assist the Compliance Committee in its considerations in relation to action item (b) under Risk Item 10 of the CCSBT Compliance Action Plan (CAP). This report brings together information to support the Compliance Committee '*review data collection forms and procedures across tuna RFMOs regarding compliance with seabird CMMs by longline fishing operators'*. The IMCS Network has worked with the CCSBT Secretariat to identify how this report can best support the work of the Compliance Committee and has prepared this report based on a desktop analysis of publicly available information. Consultation has also been undertaken with the Compliance Managers in each RFMO discussed in this report.[2]

This report reviews the data collection requirements regarding seabird interactions and mitigation measures implemented by longline fishing operators in regional fisheries management organisations (RFMOs) recognised in CCSBT's Ecologically Related Species Resolution (ICCAT, IOTC and WCPFC)[3]. It highlights the similarities and differences in the collection forms and procedures in relation to seabird reporting for each RFMO, noting that reporting requirements exist at both Member[4] and operator levels. The report outlines the different reporting requirements at Member and operator level, along with the different levels of required monitoring (observer and/or electronic monitoring) within each RFMO.

Tuna RFMOs' conservation measures specify various operator level reporting requirements that apply both within national jurisdiction as well as the high seas. However, most operator level reporting requirements are left to the discretion of the relevant Member upon consideration of its own suite of national and international obligations. Further, CCSBT's Ecologically Related Species (ERS) annual data exchange and biennial reporting obligations include broad reporting requirements in relation to seabird interactions for vessels operating in the Convention areas of ICCAT, IOTC and WCPFC. These reporting requirements extend to datasets in addition to observer data and therefore require Members to apply detailed operational level reporting for their vessels operating across each RFMO's area of competence.

If the Compliance Committee wishes to effectively consider any harmonisation of reporting requirements, as identified in Action 10b of the CAP, Members' input will be required to specify and discuss their fleets' operator level reporting requirements. These requirements differ between Members based on their national approaches and also the respective RFMO obligations of each Member.

[1] The IMCS Network is a global informal organisation that promotes and facilitates communication, cooperation, coordination, and capacity development across the fisheries MCS, compliance and enforcement community (https://imcsnet.org/). CCSBT is a member of the IMCS Network.

[2] The IMCS Network would also like to acknowledge the support of the Tuna Compliance Network in completing this report.

[3] International Commission for the Conservation of Atlantic Tunas (ICCAT), Indian Ocean Tuna Commission (IOTC), Western and Central Pacific Fisheries Commission (WCPFC).

[4] The term 'Member' is used to cover all country-level representation at RFMOs and includes Members, Contracting Parties, Cooperating Non-Contracting Parties and other related terms.

2. Overview across RFMOs

RFMOs require different levels of detail regarding reporting on seabird interactions and use of mitigation measures. These differences exist across each RFMO at both Member and operator levels. However, there is a clear expectation within each RFMO for longline operators to report basic data related to seabird interactions. At a minimum, these reporting requirements would generally support recording species interactions in Member annual reports to respective Commissions. Complementing this, scientific observer programs provide crucial, and often more detailed, monitoring of seabird interactions and mitigation efforts. As such, RFMO's actual observer coverage rates are important for evaluating the scope and reliability of the collected data. Tuna RFMOs are also increasingly adopting e-monitoring in an effort to enhance existing monitoring levels.

The variation of RFMO reporting requirements at the Member level is likely to flow to data collection procedures and fields collected at the operator level. In this respect, each CCSBT Member's operational reporting may differ depending on whether it operates across all ICCAT, IOTC and WCPFC - or only a subset of those. Similarly, Members may regulate their vessels' seabird operational requirements based on specific area of operation linked to different RFMO requirements (e.g. high seas vs. in zone, or based on latitude). As outlined in **Table 1** below, of all CCSBT Members[5], only the European Union, Japan and Republic of Korea are Members across all relevant tuna RFMOs.

Table 1: RFMO membership of CCSBT Members

CCSBT Member	ICCAT	WCPFC	IOTC
Australia	No	Yes	Yes
European Union	Yes	Yes	Yes
Fishing Entity of Taiwan	Yes	Yes	No[6]
Indonesia	No	Yes	Yes
Japan	Yes	Yes	Yes
Republic of Korea	Yes	Yes	Yes
New Zealand	No	Yes	No
South Africa	Yes	No	Yes

WCPFC appears to have the most detailed seabird reporting requirements with CMM 2022-06 requiring daily catch and effort data reporting at the vessel level that includes key information about seabird

[5] In this document, the term "CCSBT Members" means the Member of the Extended Commission of the Commission of the Conservation for Southern Bluefin Tuna.
[6] Whilst Taiwan is not an IOTC Member, it does participate in the work of IOTC under the designation of "Invited Experts".

interactions. IOTC also captures operational data at a trip and set/shot frequency (in annual reports as specified in Resolution 15/01). However, seabird data are not broken down by species and only provide a high-level count of catch. ICCAT reporting requirements stem from Recommendation 07-07 and Supplemental Recommendation 11-09. The current ICCAT Domestic Observer Program forms (ST09) require a list of all mitigation measures currently in place on a vessel. Members can then report their relevant mitigation measures in the CP44 (Implementation of Seabird Mitigation Measures) form, together with any additional explanatory text submitted through the ICCAT Integrated Online Management System (IOMS).

WCPFC, IOTC and ICCAT each rely heavily on scientific observer programs for detailed monitoring of seabird interactions and operators' use of mitigation measures. Monitoring data from observers and/or e-monitoring provide valuable data inputs for recording species-specific bycatch data and information on mitigation implementation. In this respect, observer coverage rates are an important metric for assessing the reliability and representativeness of seabird data. However, observer coverage levels differ between RFMOs and therefore the analytical value drawn from these datasets is inconsistent (see "Observer coverage requirements" in Comparative Analysis Table, Section 6). WCPFC has a baseline requirement of 5% observer coverage for longline vessels, but Members' achieved observer coverage rates differ (including as a result of increased Bigeye Tuna catch limits resulting from corresponding increased observer/e-monitoring coverage under CMM 2023-01). IOTC's Resolution 23/07 emphasises data collection through observers where observer programs are implemented. CCSBT's Scientific Observer Program aims for 10% observer[7] coverage (representative of different vessel-types in distinct areas and time). Actual observer coverage rates within CCSBT and other tuna RFMOs across years can vary significantly. This raises challenges with detecting statistically rare events such as interactions with seabirds. In addition, e-monitoring is recognised within WCPFC, IOTC and ICCAT as a tool for enhancing monitoring and data verification and increasing existing monitoring coverage.

The operator level reporting requirements applied by Members to their vessels may differ based on range of factors. These include:

a) national bycatch policy and bycatch mitigation requirements – including national decisions regarding prescribed or approved mitigation measures (noting all CCSBT-related RFMOs include regulation of some areas within national jurisdiction);
b) membership to RFMOs and the corresponding RFMO obligations regarding seabird reporting and mitigation; and
c) policy decisions made by each Member regarding their fisheries management approaches and associated vessel-level reporting requirements (e.g. within IOTC whether that Member participates in the Regional Observer Scheme and chooses to use observer data instead of logbook data to meet their annual seabird reporting requirements).

The ability for Members to verify a vessel's compliance with seabird mitigation requirements also differs depending on the availability of independent monitoring data to verify compliance. This includes the use

[7] This includes monitoring by either human observers deployed physically onboard vessels, or reviewed catch and effort data from electronic monitoring systems.

and coverage of observer schemes and e-monitoring systems, and the occurrence and rate of at-sea boardings and inspections and/or port inspections.

3. WCPFC

CMM 2018-03 is the WCPFC's conservation measure to mitigate the impact of fishing for highly migratory fish stocks on seabirds. Paragraph 8, CMM 2018-03 requires WCPFC Members to report information describing which mitigation measures they require their vessels to use, as well as the technical specifications for each of those measures, in Part 2 of their annual reports to the Commission. Members must also report any changes made to their required mitigation measures or their technical specifications in subsequent years.

WCPFC Members must 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 WCPFC fisheries (para. 13, CMM 2018-03). 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.

Annual reporting requirements covered in CMM 2022-06 (CMM on daily catch and effort reporting) also specify seabird interaction reporting. Paragraph 2(iii) provides that "*information recorded for each day with fishing operations shall, at a minimum, include the following … iii. Interaction information about other species not listed in those sections, but required to be reported by CCMs under other Commission decisions such as, inter alia, cetaceans, seabirds and sea turtles*".

Monitoring and verification of Members' compliance with seabird mitigation requirements under CMM 2018-03 are undertaken via compliance assessment based on Members' annual reporting, and also through information gathered from observers, port inspections and high seas boardings and inspections. However, these data collection and verification activities (observer, port and at-sea inspections) have limited coverage across longline fleets. The observed data available on the use of mitigation methods is based on only modest levels of observer coverage, rarely exceeding 10% for any fleet.[8] As a result, evaluating the efficacy of seabird mitigation measures remains a challenge.[9] In addition, some analyses within the Western and Central Pacific Ocean have indicated that non-reporting by Members was not uncommon with potential increased levels of non-reporting in higher latitude of both hemispheres.[10]

[8] WCPFC-SC20-2024/EB-IP-27 "Distribution and trends of reported observed seabird bycatch mitigation use in the WCPFC Convention Area".

[9] Birdlife International Observer Paper to WCPFC TCC: Advice to the TCC 20 on Straddling Sets: Clarification of RFMO seabird bycatch mitigation requirements for timing of longline setting", 13 September 2024 (WCPFC-TCC20-2024-OP02).

[10] As above. Note, this paper is focused on the WCPFC reporting requirements under its CMM 2018-03. WCPFC's seabird mitigation requirements are more detailed than in other tuna RFMOs (e.g. IATTC Resolution C-11-02, ICCAT

4. IOTC

Resolution 23/07 (On reducing incidental bycatch of seabirds in longline fisheries) regulates seabird data reporting and mitigation measure requirements in IOTC. Resolution 23/07 establishes annual reporting as the primary mechanism for demonstrating compliance, with Members collecting specific data on seabird bycatch through scientific observer programs or, alternatively, through vessel logbooks for those not fully participating in the observer scheme. As a result, operator level reporting requirements applied by Members may differ depending on whether that Member participates in the observer scheme.

Resolution 23/07 details three key reporting requirements for CPCs (paragraphs 1, 2 and 3):

1. CPCs shall record data on seabird incidental bycatch by species, notably through scientific observers in accordance with Resolution 22/04 and report these annually. 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.
2. CPCs that have not fully implemented the provisions of the IOTC Regional Observer Scheme outlined in paragraph 3 of Resolution 22/04 shall report seabird incidental bycatch through logbooks, including details of species, if possible.
3. CPCs shall provide to the Commission as part of their annual reports, information on how they are implementing this measure.

IOTC also has a specific bycatch data collection form for reporting (Form 1IN) that contains additional elements specific to Resolution 23/07.[11] However, Form 1IN's actual data fields are minimal and high level. On top of standard metadata (Liaison Officer, Organisation, Reporting Year, Reporting Entity, Flag State), Form 1IN metadata only covers the fishery, IOTC area and interactions with "seabirds (in number)" for longliners. For each stratum, the data coverage – i.e., the percentage (%) of occurrences of interactions sampled – derived from the coverage type must be reported to assess the representativeness and quality of the estimates. That means Boats, Fish (in numbers), Fish (in weight), Number of hooks, sets or trips.

In annual reporting, Resolution 15/01 (On the recording of catch and effort data by fishing vessels in the IOTC area of competence) applies. This resolution requires reporting on seabird data ("seabirds (in number)"), however "when a CPC is fully implementing the observer program the provision of seabird data is optional" (Resolution 15/01 Annex II para. 2.3). In addition, any interactions with seabirds should be recorded in the remarks (Resolution 15/01 Annex II para. 2.4(2)). These data, if accurately collected and reported, is minimal and limited in scope. For example, "information… shall be completed for each set/shot/operation of the fishing gear" which includes number and weight (Resolution 15/01 Annex II para. 2.2), but only the "number of seabird interactions" within "catch species" not speciated (Resolution 15/01 Annex II para. 2.3).

Recommendation 11-09, or IOTC Resolution 12/06) and consequently allow for more detailed analysis of distribution and trends of reported observed use of seabird bycatch mitigation methods.

[11] for more detailed analysis of distribution and trends of reported observed use of seabird bycatch mitigation methods. https://data.iotc.org/reference/latest/forms/Form-1IN.html.

The CCSBT Resolution to Align ERS Measures requires CCSBT Members fishing in the IOTC Convention Area to comply with IOTC's Resolution 23/07. CCSBT Members are also required to provide reports on their interactions with ecologically related species[12], indicating that reporting of seabird bycatch data would be expected from CCSBT Members fishing under IOTC's jurisdiction.

5. ICCAT

ICCAT Recommendation 07-07 mandates CPCs to record and regularly report seabird interactions and incidental catches. CPCs are required to collect and provide all available information to the ICCAT Secretariat on interactions with seabirds, which includes incidental catches by their fishing vessels. This is a broad requirement to share any data related to seabird bycatch.

All vessels fishing south of 20˚S must carry and use bird scaring lines in accordance with specific parameters (Recommendation 07-07, para. 4). Vessels targeting swordfish using monofilament longline gear and using weighted lines and night setting, may derogate from the requirement to carry and use bird scaring lines (para. 5). CPCs with vessels relying on this derogation are obligated to inform the Standing Committee on Research and Statistics of their scientific findings resulting from their observer coverage of these vessels. This highlights the importance of observer data in the assessment of effectiveness of chosen seabird mitigation measures.

The CCSBT Resolution to Align ERS Measures requires CCSBT Members fishing in the ICCAT Convention Area to comply with ICCAT's ERS measures, which includes Recommendation 07-07. CCSBT Members are also required to provide annual reports on their interactions with ecologically related species[13], indicating that reporting of seabird bycatch data would be expected from CCSBT Members fishing under ICCAT's jurisdiction.

Note, Recommendation 07-07 does not provide specific details on the forms to be used for data collection or the precise procedures for reporting beyond the general obligations mentioned above. However, specific reporting forms are drawn from Supplemental Recommendation 11-09 paragraphs 7 and 9:

a) Para. 7: the CP44 Form[14] requires an outline of relevant mitigation measures; and
b) Para. 9: ST09 form[15] provides fields for observers' submission of mitigation measures currently in place.

The ICCAT Secretariat has advised[16] that Contracting Parties can provide additional explanatory text regarding implementation of seabird mitigation measures through the ICCAT Integrated Online Management System (IOMS).

[12] This includes a summary of CPUE, and total numbers of seabird incidentally caught by area and fleet and a summary of seabird captures from sources other than observers.
[13] This includes a summary of CPUE, and total numbers of seabird incidentally caught by area and fleet and a summary of seabird captures from sources other than observers.
[14] https://iccat.int/Forms/CP44-BirdMit-TRI.docx.
[15] https://iccat.int/Forms/ST09-DomObPrg.xlsx.
[16] Through direct consultation with ICCAT Secretariat.

6. Comparative Analysis Table

The table below provides insights into the similarities and differences across RFMOs' data reporting and collection forms and procedures regarding seabird reporting and compliance.

	WCPFC	IOTC	ICCAT	CCSBT
Applicable Measures (CMM /Res./ Rec.)	**CMM 2018-03** (CMM to mitigate the impact of fishing for highly migratory fish stocks on seabirds) **CMM 2022-06** (CMM on daily catch and effort reporting): "*Information recorded for each day with fishing operations shall, at a minimum, include the following …* *iii. Interaction information about other species not listed in those sections, but required to be reported by CCMs under other Commission decisions such as, inter alia, cetaceans, seabirds and sea turtles*." (CMM 2022-06, para 2(iii))	**Resolution 23/07** On reducing the incidental bycatch of seabirds in longline fisheries (supersedes Resolution 12/06) **Resolution 15/01** On the recording of catch and effort data by fishing vessels in the IOTC area of competence: Specifically for longliners, reporting should include *"seabirds (in number)"* though *"when a CPC is fully implementing the observer program the provision of seabird data is optional"* (Resolution 15/01 Annex II para 2.3). In addition, "*any interactions with whale sharks (Rhincodon typus), marine mammals, and seabirds should be recorded in the remarks*" (Resolution 15/01 Annex II para 2.4(2)).	**Recommendation 07-07** on Reducing Incidental By-Catch of Seabirds in Longline Fisheries **Supplemental Recommendation 11-09** on Reducing Incidental By-Catch of Seabirds in ICCAT Longline Fisheries	**Resolution to Align CCSBT's Ecologically Related Species measures with those of other tuna RFMOs** When fishing outside the Areas of Competence of other tuna RFMOs, CCSBT Members and CNMs required to use tori lines in all longline SBT fisheries below 30 degrees south. However, when fishing within the Areas of Competence of IOTC, WCPFC, or ICCAT, they are obligated to comply with the ERS Measures in force in that area (whether or not the Member or Cooperating Non-Member is a member of the tuna RFMO), as outlined in ERS Alignment Resolution (Annex I).

	WCPFC	IOTC	ICCAT	CCSBT
Mitigation measure requirements	All requirements stipulated in CMM 2018-03: **South of 30°S**: Vessels fishing must use at least 2 of 3 measures: weighted branch lines, night setting, or tori lines. Alternatively, hook-shielding devices may be used as a stand-alone measure. **25°S - 30°S**: Vessels required to use one of the following mitigation measures: weighted branch lines, tori lines, or hook-shielding devices. This requirement does not apply in EEZs of French Polynesia, New Caledonia, Tonga, Cook Islands and Fiji. **North of 23° North:** Large-scale longline vessels (24m or more) must use at least two mitigation measures from Columns A and B, including at least one from Column A. Small-scale LL vessels (<24m) must use at least one measure from Column A. **Column A:** Side setting w/ bird curtain and weighted branch lines; night setting with minimal deck lighting; tori line;	Requirements under Resolution 23/07 (which supersedes Resolution 12/06): **South of 25°S**: All longline vessels fishing shall use at least two of the three mitigation measures listed: Night setting with minimum deck lighting; Bird-scaring lines (Tori lines); Line weighting) OR use hook-shielding devices as a stand-alone measure. Other areas: These measures should also be considered for implementation in other areas, as appropriate, consistent with scientific advice.	The relevant measures include Recommendation 07-07 and Supplemental Recommendation 11-09: **South of 25°S**: Vessels must use at least two of the following mitigation measures: night setting, bird scaring line (BSL) and branch line weighting (para 3, Rec 11-09). Between **20°**and **25°S**: vessels shall use bird-scaring lines (tori poles), however when targeting swordfish with monofilament longline gear, can alternatively use night setting and weighted branch lines – (para 5, Rec 07-07).	As per applicable RFMO having competence over the area in which a vessel is fishing. Noting that when CCSBT Members and Cooperating Non-Members fish outside the Areas of Competence of these RFMOs, they are required to use Tori lines in all longline SBT fisheries below 30 degrees south.

	weighted branch line; hook shielding devices. **Column B**: Tori line; Blue-dyed bait; Deep setting line shooter; Management of offal discharge.			
	WCPFC	**IOTC**	**ICCAT**	**CCSBT**
	In areas between 25°S and 23°N, CCMs encouraged to have LL vessels employ one or more measures in Columns A and B.			
Observer coverage requirements	Minimum 5% annual observer coverage, measured by fishing effort (e.g. number of hooks, sets, or days). Potentially higher observer coverage levels (through both human observers and/or e-monitoring) achieved through operation of CMM 2023-01 linked to increases in Bigeye tuna catch limits. Note, this only applies to CN, ID, JP, KR, CT and US and is voluntary as implemented at the discretion of those	Minimum 5% annual observer coverage, measured by the number of operations or sets, for vessels 24m and above, and for vessels <24m if operating outside EEZ of flag CPC within IOTC Area (Resolution 22/04). Resolution 22/04 allows for observer coverage requirements to be complemented or substituted by e-monitoring systems.	Minimum 5% observer coverage, measured by fishing effort, for each fishery and gear type.[17] In 2023, ICCAT adopted Rec 23-18, setting minimum standards for e-monitoring in LL and PS fisheries.[18] This is in addition or complementary to the human observer requirements.	Target coverage of 10% for catch and effort monitoring for each fishery, specified in the Scientific Observer Program Standards (SOPS). "Observer coverage" is defined as monitoring by either human observers deployed physically onboard vessels, or reviewed catch and effort data from electronic monitoring system.

[17] Doc. No. COC-317 / 2021 – Implementation of REC. 16-14: Scientific Observer Programmes.

[18] See 23-18 – Recommendation by ICCAT to Establish Minimum Standards and Programme Requirements for the use of Electronic Monitoring Systems (EMS) in ICCAT Fisheries.

	Members seeking increased catch limits.			
Data Collection Forms	*Part 1 Annual Report* CMM 2018-03, para 13*: All available information on interactions with seabirds reported or collected by observers to enable the estimation of seabird mortality in all [WCPFC] fisheries…. These reports shall include information on:* a) *The proportion of observed effort with specific mitigation measures used.* b) *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*. This reporting includes a number of tables, including: a) Effort observed and estimated seabird captures by fishing year for each CCM. With, for each year, the total number of hooks; the number of observed hooks; observer	*1IN Form* On top of standard metadata (Liaison Officer, Organisation, Reporting Year, Reporting Entity, Flag State). This data collection report only covers the fishery, IOTC area and interactions with "Seabirds (in number)" for longliners. Note, when a CPC is fully implementing the observer program the provision of seabird data is optional. Any additional information regarding seabird interactions is noted in the remarks. For each stratum, the data coverage i.e. % of occurrences of interactions sampled, derived from the coverage type, must be reported to assess the representativeness and quality of the estimates. That means Boats, Fish (in numbers), Fish (in weight), Number of hooks, sets, trips. Annex II of the Res 15/02 contains "information for purse seine, longline, gillnet and pole and line operations and catch, which shall	*CP44-BirdMit* This form covers the "implementation of seabird mitigation measures" including the specific mitigation measure (Night setting with minimum deck lighting/Bird-scaring lines (Tori lines)/Line weighting) with corresponding information, specifically: implemented (y/n), area, details of implementation status of NPOA on seabirds. This form is only applicable for "All CPCs operating fisheries in which seabirds may be taken incidentally". Rec 07-07 does not provide specific details on data collection forms or the reporting procedures beyond the general obligations mentioned above. It mandates the recording and regular reporting of seabird interactions and incidental catches by CPCs and emphasises the importance of observer data. Mechanisms for vessels to record data on seabird	*ERSWG Data Exchange* Since 2013, the ERSWG Data Exchange has been an annual process in which ERS data for the immediately preceding calendar year are provided by 31 July each year, following the agreed format including the proportion of observed effort with specific seabird mitigation measures per Member, year, fishery and strata. "Resolution to Align CCSBT's Ecologically Related Species measures with those of other tuna RFMOs" (i.e. CCSBT Members have to follow ERS measures for other relevant tuna RFMOs to reduce duplication, ensure consistency). Members and CNMs will provide national reports on their interactions with ecologically related species in SBT fisheries to the ERSWG. CCSBT Secretariat shall annually

	coverage (the percentage of hooks that were observed); the number of observed captures (both dead and alive); and the capture rate (captures per thousand hooks) b) Proportion of mitigation types used by the fleet in a given year a) Number of observed seabird captures in [CCM] longline fisheries by species and area in a given year	be completed for each set/shot/operation of the fishing gear" which includes number of seabird interactions within "catch species" details however these are not speciated.	interactions, including incidental catches, with the intention of regular reporting to the Commission are required as per Rec 11-09 (para 7).	present a report to the Compliance Committee on the implementation of the ERS Measures. 'ERS Measures' mean all measures relating to ecologically related species in force in IOTC, WCPFC, and ICCAT. The CCSBT Annual Report for the Compliance Committee and the Extended Commission covers the main monitoring methods (Daily Logbook, Real Time Monitoring Programs, Scientific Observers, Other/EM). Currently, Members report observed and estimated seabird captures, in a 5-degree square stratum, annually through the ERS data exchange using a specified format.
Operational-level reporting	Pacific Island countries use a regional SPC/FFA Regional Longline Logsheet (expanded format) that contains fields for recording retention or discard of 'other species' (as well as standard catch and effort data).[19] This standardised log has been developed to	No data reporting forms or formats available online. Operational level reporting determined by Member based on its relevant RFMO reporting requirements. Note, IOTC Members may choose to implement their reporting	No data reporting forms or formats available online. Operational level reporting determined by Member based on its relevant RFMO reporting requirements.	Vessel level reporting requirements are only contained within ERS Measure (which triggers the requirements to meet IOTC, WCPFC and IATTC reporting requirements). However, the

[19] https://oceanfish.spc.int/en/data-collection/241-data-collection-forms

	facilitate consistent data collection across fleets. To enhance data accuracy and timeliness, the WCPFC has established standards for electronic reporting of operational data. These standards outline the minimum data fields, formats, and validation procedures necessary for electronic submissions with the aim to streamline data collection and improve the efficiency of data management within the Commission.	requirements through observer data rather than logbook data.		ERS reporting obligations include requirements to provide a summary of catch per unit effort (CPUE), and total numbers of seabirds incidentally caught by area and fleet and a summary of seabird captures from sources other than observers. It is therefore likely that CCSBT authorised vessels would require comprehensive operational level reporting to meet these requirements.
Observer data	Observers operating under the Regional Observer Program are required to report in accordance with the WCPFC ROP Minimum Standard Data Fields 2016. This includes specific sections, and corresponding data fields, on: - 'special gear attributes' for longline vessels (which includes seabird mitigation gear such as tori lines or weighted branch lines). - 'species of special interest (SSI)' data fields (including seabird interaction details (date, time location, nature of interaction), outcome/fate of animal.	Under the regional observer scheme (ROS), data collection forms are tailored for specific gear (e.g. LL). Relevant forms are Form 1DI (Discard Data), Form 1DR (Species presence), and Form 1IN (Interactions with Endangered, Threatened, and Protected (ETP) Species). Form 1IN captures the nature and outcome of ETP interactions. Form 3CN (Catch and Effort Data) would also provide valuable accompanying information. Observers are required to document	Data is collected under domestic observer programs and reported using standardised ST09-NatObProg forms (ST09A, ST09B, ST09C), which capture detailed information on fishing activities, catch composition, and bycatch incidents. The ST09 forms are designed to capture comprehensive data on all fishing operations including SSI/bycatch. Observers must record interactions with SSIs, detailing the species involved, circumstances of the interaction,	CCSBT Scientific Observer Program Standards outline the framework and requirements. Observer data is submitted to the CCSBT as a part of the annual ERSWG Data Exchange process following the agreed templates including interactions with ERS specifications. The ERSWG data exchange obligations include requirements to report on the proportion of observed effort where specific mitigation

	- An 'observer trip monitoring summary' which requires binary reporting on any interactions with SSI (Yes/No). However, the WCPFC ROP Minimum Standard Data Fields relating to seabird mitigation measures do not directly align to the existing seabird mitigation requirements in CMM 2018-03. Observers operating under the Regional Observer Programme are not required to use a particular form, only to meet the reporting requirements under the ROP Minimum Data Fields. Some Pacific Islands Observers use the Gen-3 Form developed by FFA/SPC to meet their reporting requirements[20]: This form has more detailed reporting requirements in relation to seabird interaction and mitigation measures, however, is not designed to align directly to CMM 2018-03 requirements. The Regional Observer Program Intersessional Working Group continues to progress work to strengthen the ROP Minimum Standard Data Fields.	SSI interactions by recording the date, location, species involved, nature of the interaction, and outcome (e.g., released alive, injured, or dead). Interactions should be reported using the designated observer forms and included in submitted trip reports. Observers are required to submit trip reports to the flag CPC within 30 days of trip completion. The CPC is required to forward the reports and associated data to IOTC Secretariat within 150 days, using the standardised templates and formats (e.g. electronically).	and the condition of the animal upon release.	measures were used and the observed and estimated captures/mortalities by species or group. The CCSBT Scientific Observer Program Standards specify comprehensive catch, effort and environmental information that is to be recorded for each set while the observer is on-board a vessel, regardless of whether the set/haul was actually observed, which includes seabird mitigation measures employed. In addition, observers must report the total number, whole weight in kilograms (when possible), and life status of all species caught but discarded during the observed period.

[20] https://oceanfish.spc.int/en/data-collection/241-data-collection-forms.

7. Conclusion

Seabird reporting and mitigation requirements differ between CCSBT-relevant tuna RFMOs. These differences extend to both Member reporting requirements and to operator level requirements. As a result, operator level reporting requirements are largely left to the discretion of each Member and prescribed by each upon consideration of its own suite of national and international obligations. The operator level reporting requirements applied by Members to their vessels differ based on range of factors, including RFMO membership, national bycatch policy decisions bycatch, and national vessel-level regulatory requirements.

Notwithstanding the differences between RFMOs' requirements, CCSBT's ERS annual data exchange and biennial reporting obligations include detailed reporting requirements in relation to seabird interactions. These reporting requirements relate to data sourced both from observers and also other sources. This therefore indicates that Members may need to apply detailed operational level reporting for their vessels operating across each RFMO's area of competence. Further discussion and exploration of each Members' approaches to operational-level reporting would assist the Compliance Committee's consideration of ways to harmonise seabird reporting requirements across relevant RFMOs.

The IMCS Network is an informal, voluntary organization that includes a growing number of members from national and regional fisheries agencies and organizations. The Network also includes observers from intergovernmental organizations (IGOs), non-government organisations (NGOs) and academic institutions that play a key role in strengthening and enhancing responses to IUU fishing and focusing collective monitoring, control and surveillance (MCS) efforts.

The Network promotes and facilitates effective communication, collaboration, coordination, and capacity development for our members and across the broader fisheries MCS, compliance and enforcement community. The IMCS Network Strategic Plan 2024 – 2029 provides a roadmap to guide and strengthen the Network to ensure that we deliver results, add value to the work of our members and work effectively with our observers and partners.

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