

Report of the Meeting of the Standing Working Group on Dialogue between Fisheries Scientists and Managers (SWGSM) (online, 27 April 2026)

1. Opening of the meeting and meeting logistics

The ICCAT Chair, Ms. Zakia Driouich, and the Chair of the SCRS, Dr Craig Brown, jointly chaired the Meeting of the Standing Working Group on Dialogue between Fisheries Scientists and Managers. The ICCAT Chair welcomed the participants and outlined the main items on the agenda, namely: the Revised ICCAT Plan of Action on Climate Change and the SCRS Science Strategic Plan, emphasizing their complementary nature.

The Executive Secretary then listed participating CPCs and outlined the practical arrangements for the conduct of this online meeting.

2. Nomination of Rapporteur

Morocco volunteered to draft the meeting report.

3. Adoption of Agenda

The meeting agenda was adopted without amendment (**Appendix 1**). The List of participants is contained in **Appendix 2**.

4. Review of the Revised ICCAT Plan of Action on Climate Change

The ICCAT Chair recalled that the Revised ICCAT Plan of Action on Climate Change was adopted by the Commission in 2024. She emphasized that the SWGSM is now the primary forum for reviewing cross-cutting issues, particularly those relating to climate change, interfacing between the Commission and the SCRS.

4.1 Implementation of the Plan of Action

4.1.1 Commission actions

The ICCAT Chair noted that the Commission had already taken a significant first step with the adoption, in 2024, of the Revised ICCAT Plan of Action on Climate Change. She reminded that this Plan provides for enhanced dialogue between managers and scientists and that the SWGSM has been explicitly designated as the forum for discussing cross-cutting issues, particularly those relating to climate. With this in mind, the Commission expects the SWGSM to help clarify the nature of management needs, to guide requests made to the SCRS, and to identify priorities as well as any potential resource implications.

4.1.2 SCRS actions

The Chair of the SCRS provided an overview of the work already underway to incorporate climate considerations into ICCAT scientific advice. He emphasized that this integration is already taking place across several species groups, with varying degrees of progress according to the stocks and the methods available.

For tropical tunas, environmental changes are already being taken into account in abundance indicators, notably through the standardization of catch per unit effort (CPUE) across space and time, in order to better detect stock movements linked to changing ocean conditions. Within the framework of management strategy evaluation (MSE), robustness tests are used to review the performance of management procedures in alternative recruitment and productivity scenarios, as illustrated in the case of western Atlantic skipjack tuna.

For albacore tuna, research results have shown the existence of potential links between recruitment and the North Atlantic Oscillation. However, in the absence of a sufficiently robust relationship to support a specific climate scenario, the Albacore Species Group has so far adopted general robustness scenarios, based on changes in the level and variability of recruitment.

For bluefin tuna, environmental variables such as sea surface temperature and the Atlantic Multidecadal Oscillation (AMO) are already incorporated into certain abundance indices and analyses. Alternative recruitment assumptions are also being considered within the context of work on MSE. The use of fisheries-independent approaches, such as the Close-Kin Mark-Recapture (CKMR), has been cited as a useful way to limit biases related to catchability under environmental influence.

For northern swordfish, the AMO index and habitat suitability indicators have been used in the assessments and standardization of catch rates. Robustness tests of the management procedure (MP) are also being conducted with regard to the possible effects of climate on recruitment, yield and stock status.

Research on billfish shows that surface temperature and dissolved oxygen already influence the vertical distribution of these species. Environmental factors are currently being incorporated into CPUE and habitat analyses, while MSE-type applications have yet to be developed.

In parallel, the Subcommittee on Ecosystems and Bycatch is continuing work on the effects of marine heatwaves in the Mediterranean, particularly on bluefin tuna at early life stages, as well as on the development of climate variability indicators and habitat monitoring tools.

The Chair of the SCRS reiterated that the integration of climate into scientific advice relies on three complementary approaches: i) the use of qualitative indicators to contextualise decisions, ii) the explicit integration of climate factors into stock assessments, where scientifically feasible, and iii) the use of climate-adapted MSE, notably through robustness testing. He also emphasised the need to challenge the stationarity assumption, the importance of data independent of fisheries, the opportunities offered by new abundance estimation techniques (CKMR), and the need for interdisciplinary and inter-institutional collaboration.

The presentation by Dr Tom Carruthers titled “Developing the Climate Test: Climate Robustness as an attribute of Management Procedures (MPs)” focused on the development of a “climate test” designed to assess the climate resilience of fisheries management procedures, rather than to produce accurate climate forecasts. The author of this application emphasizes that the impacts of climate change on fish stocks remain highly uncertain, but that they can be simplified into six main mechanisms: natural mortality, somatic growth, condition factor, recruitment, spatial distribution and carrying capacity.

The proposed approach involves testing up to what level of climate disturbance a management procedure can maintain its performance before crossing a threshold of non-robustness. The results show that certain management procedures are more resilient to climate scenarios than others, enabling climate resilience to be incorporated as a measurable attribute in management advice. This method offers a simple and concise tool that can be combined with the results of MSE assessments to support more robust management decisions in the face of climate change.

Discussions

Several delegations welcomed the efforts already made to integrate climate considerations into scientific work and considered the proposed approaches to be relevant. There was consensus on the value of integrating this dimension into the assessment of management strategies (MSE) across different timescales, while acknowledging the significant constraints in terms of human resources and the difficulty of applying all approaches simultaneously to all stocks.

The discussions also highlighted the complexity of taking climate factors into account for managers, as well as the value of pragmatic approaches, such as robustness tests, to make progress in this area. Several interventions emphasized the need to prioritize work and rank stocks in order to focus efforts on the issues most relevant to management.

Furthermore, some delegations called for further clarification on the tools and indicators developed, while highlighting the risk of overburdening scientific capacity. Finally, it was reiterated that the robustness of management procedures in the face of climate impacts must be demonstrated through rigorous analysis and that further research remains necessary, particularly to better distinguish the respective impacts of fishing and climate change.

In response to the comments from CPCs, the SCRS Chair indicated that, without sufficient financial resources, the SCRS would continue to rely on external collaborations and the gradual use of available tools. He emphasized the complementary nature of the three proposed approaches, the need to narrow the range of hypotheses to be explored, to better define qualitative indicators, and, where appropriate, to consider more conservative operational targets in a context of increased climate uncertainty. Dr Tom Carruthers, the author of the presentation titled “Developing the Climate Test: Climate Robustness as an attribute of Management Procedures (MPs)”, noted that robustness tests are a pragmatic, rapidly deployable tool that has already been discussed within the Subcommittee on Ecosystems and Bycatch, but which does not replace the other scientific tools of the SCRS.

4.2 Climate-related questions with implications for management

The Chair of the SCRS explained that the SCRS required clarification regarding the nature of “climate-related questions with implications for management” which the Revised ICCAT Plan of Action on Climate Change calls on the SCRS to develop, and some idea of how they would be used. To facilitate discussions to clarify this, the SCRS Chair gave a presentation (“Climate-related questions with implications for management”) based on his own interpretation of the meaning of this phrase.

He suggested that “climate-related questions with implications for management” should form a framework for future scientific inquiry that connects climate changes to specific fisheries management decisions.

Based on the review already carried out, three main themes were highlighted: biological productivity (recruitment, growth, natural mortality), the spatial distribution of stocks, and the reconciliation of climate time scales with those of fisheries management.

As regards the climate implications for management, these could be as follows:

- Possible consequences for resource allocation and access if species move spatially;
- The accuracy of stock assessments and management projections, in a context where biological parameters may no longer be stationary;
- The robustness of management procedures and harvest control rules (HCRs) in the face of increased climate trends or variability;
- The potential value of dynamic reference points, which better account for environmental change.

The SCRS Chair emphasized that these issues should enable the Commission to provide the SCRS with a clearer mandate, to target the research needed to assess climate impacts, to evaluate resource requirements, and to better align scientific advice with the Commission’s management needs. Examples were presented, notably concerning the influence of climate indices on recruitment and catchability, the links between trophic changes and natural mortality, the consequences of stock movements for allocation, the effects of temperature on fleet selectivity, and the risk of recruitment failure in the event of extreme weather events.

Discussions

Following the presentation by the Chair of the SCRS titled “Climate-related questions with implications for management”, the CPCs made comments, a summary of which is provided below:

In general, the delegations supported the interpretation of the meaning of the phrase “climate-related questions with implications for management”. Furthermore, the delegations emphasized that the scope of the issues to be addressed is particularly broad and that there is no exhaustive list. In this context, a consensus emerged in favour of identifying a limited number of targeted issues that directly address the needs of the Commission.

It was noted that expectations may vary among the parties, making it necessary to clearly structure the priorities. Several interventions emphasized the importance of prioritizing the reliability of stock assessments and the robustness of management procedures, while suggesting that broader issues be addressed at a later stage.

Furthermore, some contributions considered it relevant to explore innovative approaches, such as the possible use of dynamic reference points, subject to in-depth scientific work and adequate resources. Finally, questions were raised regarding the practical application of these issues in the development of the management advice and the elements that should actually be incorporated into it.

For her part, the ICCAT Chair raised several strategic questions: should qualitative environmental indicators be used? Should climate be explicitly incorporated into assessments? And how should we address the fact that total allowable catches (TACs) generally remain constant whilst environmental conditions change?

In response to CPCs comments, the SCRS Chair emphasized the need to first define the priority issues and then assess the resources required to address them. He noted that the reference points currently used by the SCRS remain based on established frameworks, notably B_{MSY} and maximum sustainable yield (MSY) (which in practice are usually based on recent fishery and stock dynamics), and proposed that a workplan be agreed upon to progressively establish scientific priorities for the Commission's management purposes.

5. SCRS Science Strategic Plan

The SCRS Chair briefly reviewed the progress made during 2025 on the development of the SCRS Science Strategic Plan, while noting that the resulting draft plan was not adopted by the SCRS in 2025. He expressed the view that developing an SCRS Science Strategic Plan remains an important objective, although the SCRS agreed not to continue work on it during 2026. He noted that, in retrospective there were issues with the approach taken to develop the Plan. For instance, the open consultation process had revealed certain limitations, notably a lack of engagement from participants. Also, the development of longer-term research budget requests was carried out independently of the SCRS Science Strategic Plan development, and correlation between the two products was lacking.

He also emphasized that several identified research needs are not fully addressed in current budget planning exercises, even as ICCAT moves towards multi-year budget planning. In this context, he indicated that a relaunch of the project in 2026 might be necessary, with particular attention paid to linking research priorities with funding requirements. To that end, the SCRS Chair indicated his intention to make a flexible proposal on how to further develop the SCRS Science Strategic Plan, to be informed by SWGSM discussions and considered at the 2026 SCRS Plenary meeting.

Discussions

The delegations acknowledged the importance of the work already carried out and expressed broad support for the development of a structured framework for future actions. A consensus emerged regarding the need for a clear prioritization of activities, structured around short-, medium- and long-term horizons, as well as a phased approach supported by detailed planning and performance indicators to monitor progress.

The discussions also highlighted concerns regarding the feasibility of such a plan given the resources available. Several interventions emphasized the importance of avoiding an overly ambitious approach and ensuring that the objectives set are in line with actual capabilities.

Finally, the delegations emphasized the need to clarify the practical arrangements for implementation and to continue discussions on the prioritization of objectives in order to ensure the effectiveness and relevance of the future strategic plan.

In response to CPC comments, the Chair of the SCRS indicated that, in the absence of a specialist in strategic planning and given the available resources, a pragmatic approach would be necessary. He raised the possibility of distinguishing between a strategic document focused on scientific priorities and a separate document devoted to protocols or procedures. Some CPCs questioned the need for a separate document but considered that they could be separate sections of the SCRS Science Strategic Plan.

In conclusion, the CPCs support the principle of a strategic plan for the SCRS, but expect first a clear, realistic prioritization that is compatible with the budget that could be allocated to the SCRS.

6. Recommendations

No formal recommendations were adopted during the meeting.

However, the discussions highlighted several common themes: the need to gradually increase the integration of climate considerations into scientific advice, to prioritize climate issues with management implications, and to better align this new work with the capabilities and resources of the SCRS.

7. Other matters

No other matters were raised.

8. Adoption of report and closure

It was decided that the report would be adopted by correspondence. The meeting was adjourned.

Agenda

1. Opening of the meeting and meeting logistics
2. Nomination of Rapporteur
3. Adoption of Agenda
4. Review of the Revised ICCAT Plan of Action on Climate Change
 - a. Implementation of the Plan of Action
 - i. Commission actions
 - ii. SCRS actions
(SCRS will provide examples of where work or information related to climate has been integrated into SCRS work)
 - b. Climate-related questions with implications for management
 - i. SCRS presentation of example questions
 - ii. Discussion of the nature and purpose of questions to be developed by the SCRS
 - c. Next steps
5. SCRS Science Strategic Plan
 - a. Overview of the development of the existing draft SCRS Science Strategic Plan and current status
 - b. Discussion of what CPCs would like to see included in SCRS Science Strategic Plan (or suitable alternative)
 - c. The way forward
6. Recommendations
7. Other matters
8. Adoption of report and closure

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