REPORT OF THE SCRS MEETING ON PROCESS AND PROTOCOL

(Madrid, Spain, 20-22 February 2020)

The results, conclusions and recommendations contained in this Report only reflect the views of the participants in the SCRS Meeting on Process and Protocol. Therefore, these should be considered preliminary until the SCRS adopts them at its annual Plenary meeting and the Commission revise them at its Annual meeting. Accordingly, ICCAT reserves the right to comment, object and endorse this Report, until it is finally adopted by the Commission.

1. Opening, adoption of agenda and meeting arrangements

The meeting was held at the ICCAT Secretariat in Madrid from 20 to 22 February 2020. The Chair of the SCRS, Dr Gary Melvin (Canada) opened the meeting and served as the chair of the meeting. Mr. Camille Jean Pierre Manel, ICCAT Executive Secretary, also welcomed the participants. The Chair proceeded to review the agenda which was adopted with a few changes (**Appendix 1**). The List of Participants is included in **Appendix 2**. The List of Presentations presented at the meeting is attached as **Appendix 3**. The abstracts of all SCRS presentations provided at the meeting are included in **Appendix 4**.

Sections	Rapporteur
Item 1	N. Taylor
Item 2	D. Die
Item 3	N. Taylor, K. Ramírez
Item 4	J. Walter, M. Ortiz
Item 5	C. Palma, C. Mayor, F. Alemany,
Item 6	M. Neves dos Santos, N. Taylor
Item 7	F. Alemany, M. Neves dos Santos
Item 8	N. Taylor
Item 9	G. Melvin, M. Neves dos Santos,
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Item 10	N. Taylor, M. Neves dos Santos,
Item 11	M. Neves dos Santos

2. SCRS 2021-2025 Strategic Plan

The SCRS developed its first 2015-2020 Science Strategic Plan (SSP) through a process of consultation which involved many SCRS scientists and the Secretariat. The process lasted over two years and culminated in the presentation of the SSP to the SCRS and Commission in 2014. The Commission adopted the SSP that year and the plan has been used by the SCRS since then. The 2015-2020 SSP required that the SCRS review progress towards reaching the objectives of the plan periodically but also recommended a review of progress by independent reviewers.

The SCRS has had a standing item on the SSP in its annual plenary agenda and the SCRS annual report since 2016. Moreover, the SCRS conducted a mid-term review of the plan in 2017 (refer to section 17 of the *Report for Biennial Period 2016-2017, Part II (2017), Vol. 2*). To date the SCRS has not organized an independent review of the plan.

During the mid-term review a summary table of progress was developed for each of the objectives of the plan, and the associated measurable targets. The table also had columns for the groups responsible for monitoring the targets, the amount of progress achieved in reaching the target and brief notes on the work conducted for each objective (see table below).

At the Officers meeting in September 2019 it was agreed to develop an update of the SSP. It was also agreed that a group of Officers (Drs Amande, Cass-Calay, Coelho, Die and Melvin), would initiate the work for the final review of the 2015-2020 SSP and gather information to develop a new SSP. Such initial work should be completed by June 2020 to allow time to finalize the new SSP in preparation for the annual October meeting of the SCRS. It was reported that the above group has not advanced in its work of the review of accomplishments of the 2015-2020 SSP.

Headings and format of mid-term review table for the 2015-2020 Strategic Science Plan contained in the 2017 SCRS annual report

Table 1. Summary of progress in the implementation of the ICCAT Science Strategic Plan.

Targets already reached/exceeded or will be reached soon Good progress with some targets reached but not all Small progress or no progress with no targets reached



DATA	COLLECTION			
Goal	Objective	Measureable targets	Reporting responsibility for targets	Notes on measurable targets
1.1	Strengthen the collection of High Quality Task I and II data and to address data gaps that are identified	A 20% reduction in missing or lacking data items in the Secretariat's annual report on statistics.	Secretariat	Improvements in data continue. See Sec. Report on Stats. and Coord. of Research.
1.2	Improve resolution and precision of total catch composition and distribution and fishing effort data across CPCs	Fishery catch/effort maps at 1x10 resolution, by month by major gear type by 2020, in support of fine scale (time and space) fishery management advice.	Secretariat	Available for some species and fleets

The Chair of the SCRS provided his preliminary comments on the 2015-2020 SSP to the participants to open the discussion. Although some participants suggested the update of the plan may have to be delayed until 2021 unless more effort in its development be put in place, the Group agreed to plan activities to complete the new SSP draft by late September 2020. The Group considered that the Mission, Vision and Values of the 2015-2020 SSP remain relevant today.

A number of suggestions were made to help the process of updating the SSP:

- The review of the plan should include a summary of whether targets of the 2015-2020 plan were achieved and if not the reasons for this and the impact.
- Each section of the plan should be reviewed under the leadership of a designated leader.
- An objective evaluation of how useful the plan has been to the SCRS should be the culmination of the review of the 2015-2020 SSP. Development of a new plan should only be done if the expected benefit from it to the SCRS is clear.
- The process of development of the new plan should be transparent and open so that all SCRS scientists can contribute to it if they chose to. A process similar to the one used for the development of the 2015-2020 SSP may be used for the updated plan. To help such process it was agreed that Dr Josu Santiago, who led the development of the 2015-2020 SSP, will join the new SSP development team.
- Questionnaires directed at heads of CPC SCRS delegations and SCRS Officers should be used to request input on essential elements of the plan.
- The development of the new plan should include an evaluation of whether some goals of the 2015-2020 plan can be eliminated and whether other new goals should be added.
- The numbering of sections of the new plan should be improved.
- The Secretariat Report to the Sub-committee on Statistics contains much information useful to assess the SCRS accomplishments regarding data collection.
- The recommendations of the meeting reports of the Standing Working Group to Enhance Dialogue between Fisheries Scientists and Managers (SWGSM) should be reviewed so as to see whether there are important suggestions from managers for the SSP.
- A possible sequence of actions to develop the plan may be:
 - The development team for the new SSP prepares a draft review of the 2015-2020 SSP and suggestions of changes in plan goals and objectives by June 2020.
 - The draft review and suggestions are sent together with a questionnaire to CPC representatives and SCRS Officers in early July 2020 requesting comments by late August.
 - Comments received are used by the SSP development team to provide a second draft for consideration by the SCRS plenary in October 2020.

The Group also discussed extensively the lack of progress relating to the socio-economic objectives of the 2015-2020 SSP. It was mentioned during the Second Meeting of the Standing Working Group to Enhance Dialogue between Fisheries Scientists and Managers (SWGSM), held in Bilbao, Spain, from 22-24 June 2015, which had socio-economics as one of the main items of the agenda, that there was general agreement on the need to explore ways to more formally consider economic data as a means of informing management decisions. At the last meeting of the Commission's Panel 1, held in 2019, socio-economics issues were quite prominent during the discussions. The Sub-committee on Ecosystems of the SCRS has in fact identified the need to collate some socio-economic indicators for the ecosystem report card.

There were various opinions regarding whether it was desirable to maintain such type of objectives in the new plan. Most people agreed that socio-economic data and analysis of such data are important to decision making. The Group also acknowledged that currently there is very limited capacity within the Secretariat and the SCRS to engage in such research and data collection. It was mentioned that capacity, when present, resides at institutions of the CPCs but such experts are not commonly engaged in the SCRS.

The potential to use online meetings/conferences and collaboration software as communication tools was discussed. Although such technologies do have challenges, technical difficulties are surmountable. Recent experiences on using online conferences for the SCRS MSE process have been generally positive. These tools are especially useful to prepare the material to be considered at meetings but also to complete follow up of tasks that were not completed during regular meetings. Online meetings/conferences and collaborating platforms are often used in other t-RFMOs to promote intersessional collaboration and to reduce the time required for in-person meetings. It was agreed that these tools can benefit the SCRS, serving as a complement for in-person meetings. It was agreed that the Secretariat would develop a list of possible software candidates for these tools and would request information from CPCs about whether such tools can be used by CPC scientists or not. Many countries constrain the use of some specific software by their own scientists.

3. SCRS Research Priorities 2021-2025

3.1 Current and future funding

The Chair highlighted the need to establish a protocol to make decisions about how to address funding shortfalls and prioritize research projects. Each working group/Sub-committee may present one, two or three recommendations with financial implications without categorization and prioritization, and the result is that the request for financial support from the Commission is often much greater than the funding available. Currently the regular funds provided by the Commission do not cover the needs of the SCRS, and requirements are partially met through external voluntary contributions. The 2019 Commission meeting in Mallorca made it clear that the funds available were insufficient to cover all the research requests of the SCRS; there was a significant reduction for some projects, while others received minimal funding. He noted that budget decisions are made at the Commission very quickly and there is no time for consultation. A protocol needs to be established to make financial decisions about research funding during the Commission meeting.

The Secretariat staff presented SCRS/P/2020/003 which was a summary of financing of SCRS activities. The sources included voluntary contributions by some CPCs, as well as special research programmes: the AOTTP and the GBYP. These funds have financed research activities, data recovery, hiring experts and reviewers for stock assessments, participation in meetings and workshops, as well as participation by Secretariat staff in external meetings, which do not correspond to the Commission or the SCRS.

In addition, the total quantification of the annual requested funds of the SCRS was presented against the funds provided by the Commission from 2016 to 2020. An important element was that due to the arrival of voluntary contributions, ICCAT had not used the Working Capital Fund to cover research costs in the past three years, which it had done previously. More CPCs are requested to provide voluntary contributions, as fewer than 10% of CPCs currently do so. While some CPCs make in-kind contributions, it is difficult to estimate their value.

The Group indicated that since science is what underpins decision-making, it should be regarded as fundamental to achieving out the Convention objectives of the Commission. Efforts should be made to strike a better balance between funding availability and what is required to carry out the mandate of the SCRS. Therefore, the science budget should be secured primarily through the regular budget and not rely on voluntary contributions.

In addition to increasing funding through the regular budget, the Group discussed other sources of alternative funding that might be explored:

- Proactively seek alternative sources of financing i.e. The FAO Common Oceans /ABNJ tuna project or other programmes, industry and NGOs. Encourage more CPCs to provide voluntary contributions.
- An option that warrants further exploration is to seek funding from the proceeds of the value of landed catches, with a proportion of the quota being allocated to cover science costs.

An additional point that was raised is that the SCRS would benefit from internal coordination both to devise a set of research proposals to secure more funding and so that the benefits from well-funded projects could be applied to other programmes (through sharing of methodologies for example).

- Ensure long term funding (beyond annual/biannual timeframes).

Based on the analysis of the total annual funds of the SCRS referred to above, approximately 93% of the funds have been spent and 7% could not be used for a number of reasons. To enhance the use of available funds the following activities are suggested:

- Better assessment of funding needs
- Enhance options to make full use of funding
- Improve planning/coordination within SCRS Species Groups
- Seek project coordination with greater management skills
- Enhance Secretariat engagement in project administration management

It was noted that a breakdown of funding by Species Group would be useful.

In addition, the Group discussed how several organizations receiving ICCAT funds had to overcome some difficult administration issues both within their CPCs and involved in the interaction with other CPCs. In many cases, the inability to administer funds comes from differences between ICCAT procedures and those undertaken within the CPCs. To remedy this, institutions and consortia would benefit from knowing the administrative procedures and constraints (including timelines and auditing procedures) involved in receiving ICCAT funds; in addition, consortia and CPCs would benefit from making an internal assessment of their ability to spend ICCAT funds. It was noted that CPCs have many internal obstacles in administrating ICCAT monies: among these, one-year timelines make it very difficult to coordinate spending and project delivery. One particular challenge that compounds these difficulties is that the arrival of funds from ICCAT can occur late in a calendar year. In some cases, field operations must occur early in the year to overcome administrative hurdles that can impede the ability to spend this money. In these instances, undertaking the project might require that CPCs fund (or risk manage) projects from their own funds (i.e. before the delivery of ICCAT funds takes place) but this is not permitted by many governments.

Some potential remedies were discussed. One proposal was to have a person at the Secretariat that would administer payments in coordination with the Species Groups instead of transferring money directly to CPCs. Extending the project to timelines longer than one year would greatly assist in overcoming the challenges involved in delivery projects involving many different CPCs and those involved in implementing sampling programmes that have a requirement to do work early in the calendar year.

The Group discussed having realistic expectations for how much money could be allocated to research. It was noted that there is a large imbalance between the requested funding and what regular funding has been available annually. It was also recognized that although the regular funding has increased over the last few years it is insufficient to meet the research requests. The Group recognized that while funding might be increased, it is unlikely to do so by several orders of magnitude needed to make up for the shortfall. Alternative sources of funding need to be pursued.

3.2 Priorities and basic research

The discussion on priorities and basic research was divided into two components: large scale projects such as the GBYP and the AOTTP and the smaller regular research projects to address specific issues. It was pointed out that the GBYP has been ongoing for several years, and will continue, while the AOTTP program is about to end in November 2020. The SCRS also has several new projects in various stages of development that address the major research needs of some species or groups. The lack of information and research on certain species was identified as a concern, but it was acknowledged that some species have been considered to be of higher priority than others.

Projects arising from Species Groups or Sub-committees also need to be prioritized. Under the current system, every Species Group or Sub-committee can put forward two research recommendations to address issues raised at their annual meetings. Prioritization of these research recommends would allow an objective mechanism to identify projects if funding levels were insufficient to undertake all requests. With respect to research needs in general, the question was put to the Group: what are the key priorities for research and what projects should be undertaken to address these research needs? So that the Group knows how best to allocate limited resources, the Chair put forward a suggestion that the SCRS determine priorities in the plenary SCRS meeting in the event that funds are limited in the future.

The Group was informed that in 2016 a multiannual research prioritization mechanism was implemented by a previous SCRS Chair. In this approach, criteria were defined that included factors such as the magnitude of improvement in the state of knowledge, relevance to management, capacity building, cost-value ratio, as well as conducting a prioritization debate based on the SCRS recommendations that are open. It was pointed out that the SCRS defines research priorities on the stock situation, which must be accompanied by a research proposal, and this involves cooperative interaction between Species Group leaders, the SCRS and the Commission to determine these priorities. It was noted that the Species Groups should establish priorities of their own proposals. Subsequent to the Species Group prioritization process, the SCRS Officers could make an assessment of which of those projects are a priority at the level of the SCRS.

The Group also identified that a meeting should be held to discuss and build capacities for different CPCs, related to learning and knowledge generation. This would imply facilitating meetings that allow scientists to collect and analyze statistics and biological data, as well as to implement research. Several sources of potential new funds were identified including: NGOs, industry, other agents, and more active fundraising by representatives of the SCRS, or the Secretariat itself.

Determining prioritization criteria should be the key priority for the discussion. These criteria would apply to both proposed Species Group projects and the large research programmes. One challenge to overcome is that SCRS Officers may not be aware of the activities and priorities of all the Species Groups. Moreover, it was noted that discussing another large research programme like AOTTP was premature at this point given that the funding sources to pay for such a programme had yet to be found. Further to this, the Group noted that who will establish the priorities is a key issue: should it be the SCRS or should it be the Commission? In actual fact it is both, but the Commission has the final say in the approval process. Further, while it would be relatively easy to prioritize within a Species Group, the conflicts will arise in choosing between the research priorities of different Species Groups. Accordingly, the prioritization of activities between Species Groups would have to be conducted by the SCRS.

The coordination of research activities to deliver the research needs of ICCAT was discussed. Different levels of organization were identified: research programmes conducted by CPCs, collaborative research programmes between CPCs as part of consortia, research targeted at Species Group needs, and large research programmes. It was noted that convention clearly defines the basic research responsibility of each CPC to conduct research and allot budget to ensure that it is carried out. The first step in the hierarchy is to identify priorities for each Species Group. The final step in the process would be for the highest research priorities to be put forward to the Commission by the SCRS. This coordination would a) educate the SCRS Officers about the full spectrum of activities that are taking place, and b) would help determine if additional efficiencies could be gained and shared across different Species Groups.

The Group noted that there is now a window of opportunity to identify the priorities for large programmes for the next five years, and to define how they will be funded. Given that the AOTTP ends in November 2020, there is the possibility of carrying out another research programme in coming years with a common scientific interest of the CPCs; research purposes could be identified and the interaction between Species Groups and programmes could be taken into account. This would require a plan to generate a proposal submission/presentation to the Commission.

The history of the development and delivery of the GBYP was presented as an example of how a large research programme was carried out by ICCAT. The Group also discussed the experience of starting the AOTTP, in which the SCRS expressed the need for research - with a feasibility study being carried out before submitting the proposal in 2009. It was noted that the SCRS obtained funding, in part, on the strength of participation by developing coastal countries.

The Group suggested that research priorities could be determined in a meeting specifically for this purpose. An advantage of having a set of research priorities defined by the SCRS is that it provides the opportunity to take advantage of funding that becomes available at the last minute. Such a plan would allow the SCRS for example, to take advantage of funding such as GEF (ABNJ), as well as additional sources of funding like those available from NGOs and industry.

The communication involved in securing additional funding will require justification of the research to the Commission and the CPCs. This communication would be well served by making arguments for more money in economic terms (i.e. that investment in research and development helps ensure the value of the portfolio). To that end, it would be useful to determine and present the values of ICCAT fisheries at the Commission and how funding is distributed between the Species Groups. The Secretariat provided the distribution of the funding. With respect to proportion of total spending on science relative to the total value of the fishery, the value (not including in-kind costs like labour) was in the order of 0.05 percent.

The SCRS assigned a small group (Drs Flávia Lucena, Craig Brown, and Mauricio Ortiz) to provide draft prioritization criteria.

The Group made a preliminary estimate of the percentage of the value of fishing products that is allocated to research funding (0.5%), as shown below. This value is very similar to the value (0.54%) obtained from dividing the average annual SCRS funding (approximately 6.1 million U.S. dollars) by the total 2014 dockside value of 1,140 million U.S. dollars for Atlantic tuna fisheries (Galland *et al.*, 2016).

ICCAT species	CCAT species * Task I catches (t) without discards								
(* as of 2020-02-22)									
Species group	2010	2011	2012	2013	2014	2015	2016	2017	2018
1-Tuna (major sp.)	481758	511325	543554	527931	513491	547053	591886	587282	619634
2-Tuna (small)	99325	112753	114333	97889	94467	100491	162391	104796	126054
3-Tuna (other)	4877	3809	6880	7707	5363	5542	7160	7394	8676
4-Sharks (major)	72413	80047	70452	63547	68889	68288	76104	73690	73655
5-Sharks (other)	18934	18004	12005	20246	5307	3773	2855	2753	1980
6-Other Species	129	217	89	160	2667	257	3534	4542	4120
TOTAL	677436	726156	747314	717480	690185	725405	843931	780457	834119

ICCAT production /year (Task I all species) with a raw estimation of the gross revenue/year

2018 unit value range (€/kg)			
low (3€/kg)	high (10€/kg)	at 1€/kg	
2018 (low, €)	2018 (high, €)	2018 (worst, €)	
€ 1,858,901,936.71	€ 6,196,339,789.03	€ 619,633,978.90	
€378,161,097.75	€ 1,260,536,992.49	€ 126,053,699.25	
€ 26,029,485.35	€ 86,764,951.18	€ 8,676,495.12	
€ 220,964,201.65	€ 736,547,338.82	€ 73,654,733.88	
€ 5,941,408.33	€ 19,804,694.43	€ 1,980,469.44	
€ 12,359,668.29	€ 41,198,894.31	€ 4,119,889.43	
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Gross revenue (2018)	~	€ 2,502,357,798.08	€ 8,341,192,660.26	€ 834,119,266.03
ICCAT budget (2018)	~	€ 3,820,000.00	€ 3,820,000.00	€ 3,820,000.00
Budget ratio (2018)	~	a 0.15%	v 0.05%	0.46%

3.3 Role of the Secretariat

The Secretariat provided an overview of Secretariat tasks related to SCRS activities (SCRS/P/2020/02). It also provided an example of activities that have not been completed as a result of the increased workload. This entailed scientific work and a broad range of other tasks that the Secretariat undertakes (including contracting, and tRMFO meeting organization), with particular reference to the historical background. From the 1990s, there has been a substantial increase in tasks related to increased measures taken per year, as well as an increase in the number of tasks of the Commission, and the number of meeting days, and heavier workloads of Species Groups like sharks, small tunas and Sub-committee on Ecosystems. The presentation concluded that at existing funding levels, the Secretariat could not support all the SCRS and compliance requirements asked of it. Accordingly, it concluded with specific requests to the SCRS to do the following: define research and task priorities, limiting the number of stocks to be assessed annually to 4, and limiting to 8 the number of intersessional meetings. In addition, it asked for the prioritization and clarification of procedural details related to workshops approved/endorsed by the SCRS (attendance, agenda adoption and changes), SCRS documents and presentations (reference request/acceptance), and creation and management for non-fisheries datasets.

The Group expressed its sympathy for the workload of the Secretariat but noted some concerns with both the procedure for rationalizing the workload and the proposal for limiting the total number of meetings that the Secretariat had put forward. It noted that more support should be sought from the Commission to increase human resources. It was further noted that some meetings were required and that the SCRS was not always in a position to choose which meetings should have priority over others. With respect to procedure, the Group noted that it might not be appropriate to make the request to limit meetings to the SCRS. The SCRS does not control its own workload any more than it controls that of the Secretariat.

The Group felt it was important to note that the SCRS is also operating at the limit of its capacity. For each meeting/assessment, CPCs have obligations to produce data, conduct preliminary analysis and research and to dedicate staff to participate in assessment meetings. Every CPC scientist present at the meeting concurred that they had difficulties meeting the obligations imposed on them by ICCAT meetings. In addition to establishing a calendar of assessments and/or a schedule of assessment frequency, one potential remedy for rationalizing the workload of both the Secretariat and the SCRS would be to establish the priorities and present these priorities to the Commission (as discussed above).

It was also noted that the Secretariat's presentation seemed to assume that that current resourcing could not be changed. One option to relieve the Secretariat's workload might be to present the limits of the Secretariat's capacity and to make the case at the Commission for more resources.

The Group discussed evaluating the Secretariat's workload so that it could complete its discussions without limiting the specific number of stock assessments and the number of intersessional meetings. This evaluation would further support a petition to the Commission to increase human resources. However, it is also important that the SCRS find mechanisms to optimize its organization. The number of personnel required will be proportional to the priorities of the SCRS. Likewise, in the case of preparing a proposal that includes possible scenarios, as well as quantification of expenses, the impacts of not meeting analytical commitments made by the SCRS must be clearly established.

In the event that the Commission does not adopt an increase in personnel at the Secretariat, the SCRS strategic plan should consider that certain stocks should be evaluated with priority and define who would participate in each of the stock assessments given the difficulties of participation and financing of costs either by the Secretariat or by the CPCs.

The Group noted that increasing resources was one approach but a wide variety of options needed to be explored to address workload problems for both the SCRS and the Secretariat. This might include limiting the number of activities (meetings, capacity building etc.) but it should also include an analysis of what additional efficiencies could be gained through better planning and execution. This could include integration of the capacity building needs within each SCRS project, ensuring that products such as analytical tools derived from larger research projects are transferable to other Species Groups and projects. An additional element for addressing the workload problem would be to illustrate the cost of an assessment. To that end, the SCRS could provide an estimate of costs per assessment and present these costs for the Commission's information.

To provide some context for the discussion about workload, the Secretariat presented a summary that they had presented in 2011 (2011_SCRS_Organization_ENG). This report made the case in 2011 that the data management required exceeded the Secretariat's ability to deliver the Commission's needs. The Group noted that the report was informative and only dealt with the statistics unit at the Secretariat only, there might be some benefit in expanding this analysis to other work units.

Additional background information provided by the Secretariat was a raw estimate of the value of the landed catch of ICCAT fisheries. The Group expressed great interest in the work that was presented. The preliminary analysis was completed in 2018. It consisted of a crude estimate of the total value of ICCAT fisheries obtained by multiplying mean per kilogram prices of either 3 or 6 units per kg and the total tonnage of the catch (not including discards). Using this method, the gross revenue ranged from 2-7 billion euros. The investment in science activities, not including large research programmes, amounted a maximum and minimum proportion of 0.17% to 0.05% respectively, of the total fishery's value. The Group identified some changes to improve the analysis (for example consideration of prices by Species Group including investments in research programmes etc.) and suggested that it be expanded in the future to include many of these factors.

4. MSEs (roadmap) and stock assessments (5-year plan)

The latest MSEs roadmap approved by the Commission at its Annual meeting held in November 2019 was presented to the Group. The updated schedule reflects the recommendation of the Commission to slow the overall process, giving priority to the N-ALB and bluefin tuna MSE process.

U.S. scientists noted some minor corrections to the text and table to be incorporated in the current version, modifications that do not change the overall schedule of the adopted roadmap (MSEs (roadmap) and stock assessments (5-year plan)), (contained in **Appendices 5 and 6**, respectively). There were inquiries regarding the tropical tunas MSE workplan status, the Chair of the SCRS clarified that under the MSE roadmap adopted it was agreed to continue the development of the tropical tunas MSE but at reduced speed, taking into consideration the complexity of this MSE process and the advantage of the recent stock assessments of BET, YFT and scheduled SKJ. In addition, it was noted that under the ICCAT biannual budget approval schedule, stopping completely the tropical tunas MSE development will delay this process for several years. It was noted the importance of continuing the development of the tropical tunas MSE, both in technical aspects and management objectives, given the importance of these fisheries and the current status of some of the stocks.

The Group requested that the SCRS provide a summary for the N-SWO MSE process at the upcoming Intersessional Meeting of Panel 4.

5. Data policy: dissemination, requests and procedures

The Secretariat presented SCRS/P/2020/001, which focused on the "new" Task 3 related data and how it fits in the ICCAT current data dissemination policy. Firstly, the presentation set out the Task 3 definition (yearly goals and associated datasets) that was adopted by the SCRS in 2019. Task 3 is an annual task that compiles and manages all the mandatory datasets obtained from statistical forms ST07 to ST10. Therefore, it excludes all the datasets associated with Task 1 and Task 2 (obtained from forms ST01 to ST06), and all the conventional/electronic tagging information (forms TG01 to TG03). The Secretariat reminded the Group that "task" as a concept is an annual mission to manage (compile, update, validate, improve, etc.) ICCAT fisheries and biological data, and not the data in themselves. These data collection/management tasks were defined for the first time by the SCRS in *Report for Biennial Period 1970-1971, Part II (1971), Vol. 2*, where the nomenclature was adopted "Task 1" and "Task 2" (not "Task I" or "Task II", or other variants currently in use). After a brief discussion, the Group agreed to adopt only the original nomenclature.

The second major element of the presentation was the ICCAT data dissemination policy and the "risk classification" associated with public dissemination of Task 3 datasets. In short, the presentation noted that there is no requirement to publicly disseminate the four datasets of Task 3: a) ST07: Support vessel activity in tropical fisheries; b) ST08: Tropical fisheries PS FAD deployments/densities (Rec. 19-02); and, c) ST09: Domestic observer programs data; and d) ST10: Port sampling. Accordingly, this information is not currently publicly available on the ICCAT web site.

The Secretariat also maintains biological sampling data that are not included within the Task 3 definition described above. This information was obtained for the most part under the ICCAT research and data collection programmes (GBYP, AOTTP SRDCP, SMTYP, EPBR, etc.). Part of this information is merely inventoried (storage of original files), and not properly managed within a database. In short, the biological samplings datasets are not prepared for systematic management because the Secretariat does not yet have the conditions required (databases, applications, etc.) to manage them properly. Thus, the issue under discussion is how best to proceed with the management and storage of these data.

The Secretariat presented a series of options about how biological data from research programmes should be classified and managed. Three options were presented:

- i. Extend Task 3 with biological data (possibly too large and potentially complex)
- ii. Create a new Task 4 (mandatory annual obligation)
- iii. Use the term "Biological sampling data" (same treatment as tagging, and not an annual task)

The Group agreed to rule out option 1. Option 2 (a new Task 4) was considered but given its connotation with annual CPC obligations on data submissions, the Group adopted and recommended "option 3".

The Secretariat also proposed a series of steps to deal with the biological sampling data obtained by ICCAT from all years (current and historical special research projects: BYP, GBYP, BETYP, AOTTP, etc.). The first step is the development of a unique meta-database of biological sampling data (what, where, when, who, etc.). The second step would be to identify the different types of biological data (biometry, age, otoliths, maturity, etc.), structures (depends on the level of detail required) that would form the basis of database model development, and the applications that will handle the biological information. Given the intrinsic complexity of the biological information, it will be necessary to establish development priorities for each biological data component. The Secretariat noted that a considerable amount of work would also be required to ultimately integrate these biological data available soon.

It was noted that all the Task 3 datasets (forms ST07 to ST10) are mandatory under ICCAT reporting obligations. CPCs fishing for tropical species must submit forms ST07, ST08, and ST10, and all CPCs should report ST09 data. The Group also pointed out that it is potentially very difficult to analyse the observer data submitted (ST09) to the Secretariat in its present format.

An enquiry was made regarding the process to be followed by members of the SCRS to access the new Task 3 datasets. The Secretariat informed the Group that there is no official SCRS format or aggregation level for sharing this information. The Sub-committee on Statistics (SC-STAT) should propose for each Task 3 dataset, the format and level of detail for sharing these data within the ICCAT community and publicly on the web site. In short, while the data dissemination rules are clear for Task 1 and Task 2, they have not yet been determined for Task 3. What form biological data should be stored in by the Secretariat and whether they should be stored by the Secretariat was discussed. The primary reason was that their collection was co-financed by ICCAT and that these data should be available for analysis by the ICCAT community. While some concerns were identified about how much data should be stored (including whether physical samples should be stored etc.), the goal would be to store any derived information (i.e. ageing, maturity information etc.) in the database. This would prevent the loss of these data as has occurred with some historical data collected under special programmes.

The Secretariat noted that some continued biological sampling data (whether it is called "Task 4" or "biological sampling") activities are essential. In the case of the AOTTP, data would be lost without a database for collection of information on tag returns, which will be submitted once the main programme has ended. It was further noted that while some conventional tag data have already been stored in the ICCAT-DB system, it will be necessary to merge the AOTTP and ICCAT databases into a single conventional tagging database and that this task will be time-consuming and complex.

In relation to the biological sampling data management approach (going from a simple meta-database inventory to a complex database structure), the Group considers that ICCAT should start with the simple meta-database inventory that describes the location of the data and the process for accessing them.

Regarding the "Proposal for Amendment of the Rules and Procedures for the protection, access to, and dissemination of data compiled by ICCAT", which was presented at the at the 2019 SCRS plenary meeting and is contained in Appendix 11 to the *Report for Biennial Period 2018-2019, Part II (2019), Vol. 2*), the Group considered that, as described in the above-mentioned report, further feedback from the SCRS subsidiary bodies was required. Therefore, the Group agreed that the document would be circulated to the conveners/rapporteurs of the different Sub-committees and Species Groups for comment, and that a new draft incorporating all their inputs should be presented to the 2020 Meeting of the Sub-committee on Statistics for review and adoption by the SCRS at the 2020 plenary meeting.

6. Submission of scientific papers / presentations at meetings and publication guidelines

6.1 Submission of scientific papers/presentations at meetings

Papers providing a summary of research results are an important aspect of the SCRS process. Unfortunately, in recent years, insufficient time has been available during the Species Group meetings week to accommodate all the papers prepared. This is especially true for species for which the Species Groups must undertake an assessment. To overcome this problem, the SCRS Chair proposed to reserve Friday of the Species Group meetings week to host all research papers and presentations that are not assigned to major agenda items (e.g. Species Executive Summaries and responses to the Commission). A convenor would be appointed to coordinate the discussion related to these papers and presentations. For intersessional meetings the practice of presenting scientific papers would continue within the meeting.

Although some concerns were expressed, namely regarding shortening the effective number of days available for the different Species Groups meetings, the Group recognized the value of the proposal. In addition, since a minimum of 15 minutes should be assigned for the presentation and discussions of these documents/presentations, a limited number could be proposed. In that case concurrent sessions would be necessary.

Deadlines for submitting paper/presentation "abstracts" for both intersessional meetings and Species/Working Group meetings will be 2 months in advance when funding for participation is requested. Rapporteurs would respond regarding the acceptance of the paper/presentation within 1 week, when possible, to ensure adequate time is available to process funding requests. The actual paper/presentation submission deadline would remain at 1 week before the start of the meeting.

Although the Group did not make a specific recommendation regarding a special presentation session it was suggested that the Chair and the Secretariat further assess the possibility of scheduling on Friday of the Species Group meetings week a session for all research papers and presentations that are not assigned to major agenda items of all species group meetings held that week. The outcome of the assessment will be presented to the 2020 SCRS Plenary for discussion.

6.2 Publication guidelines (new species Executive Summaries and meeting reports)

In 2018, the SCRS proposed to the Commission a new approach for communicating the outputs of their work which divided the information into 3 report types: Executive Summaries, Detailed Reports, and a record of the assessment session. The main purpose of the change was to limit these ever-expanding documents, standardize the format and reduce the burden on the Secretariat's effort (e.g. translation and quality control).

To condense the Executive Summaries into a standardized format that is concise and easy to read, an example of the new format was prepared and presented to the Commission in 2018 for consideration. The SCRS had also agreed in 2018 to consider feedback from the Commission on this new proposed format, and to deliberate again at the next SCRS plenary with a view to improving the format of Executive Summaries. The Commission reviewed the new format in 2018 and made a few minor editorial changes to the template (regarding the orange color in the Kobe plot and the inclusion of the 3 Kobe II matrices) and requested the SCRS to include these changes. At the 2019 Annual meeting of the Commission, the issue was raised again, and no objection was put forward to implementation of the new format for Executive Summaries, even though it had not yet been adopted by the SCRS.

The Group agreed that the discussion on the new Executive Summary template has been ongoing for several years and that a final decision should be taken by the SCRS this year. For some participants, it was unclear if a new format for Executive Summaries had been adopted by the SCRS or the Commission. The Group agreed that there could be benefits in changing the format so as to improve the clarity and coherence of the advice presented to the Commission as well as to reduce the amount of work for the Species Group rapporteurs. However, several concerns were expressed by participants with the reduced template, since this could limit the amount of information being provided to the Commission.

It was suggested that the modified template should include two new sections: "New relevant information" and "Effect of current regulation". It was also suggested that new communication tools (e.g. Shiny Application) should be used as a complementary way to communicate additional relevant information to the Commission. Finally, the Group agreed to allot time at the 2020 SCRS plenary meeting to present and discuss alternative Executive Summary formats using examples taken from albacore tuna.

6.3 Peer review and access to SCRS papers

ICCAT/SCRS has had a long-standing agreement with the Aquatic Living Resources journal (ALR) to publish annually several scientific papers from those presented at the SCRS Species Groups. In 2014, the journal changed its editorial focus towards an ecosystem approach to fisheries management, which limited the possibilities of publishing SCRS documents presented, however the journal did broaden its scope in terms of an ecosystem approach, potentially opening the way for a larger number of SCRS documents.

In 2016 the ALR expressed their continued willingness to publish a few more ICCAT papers (12-15) on an annual basis. However, the SCRS has failed to select a minimum number of papers for submission to ALR during the period 2016-2018 (only 2 papers were selected in 2016, 0 in 2017 and 2018). To reverse this important aspect of scientific research, the Committee agreed in 2018 to have each SCRS Species Group Chair identify, in their work plans for 2020, a specific paper that will be put forward for publication in the primary literature. Species Group Chairs were requested to select 1-2 papers from their Species Group that could be put forward from the 2019 meetings. However, only one paper was put forward from last year's meeting.

The Group reiterated the value to have each SCRS Species Group Chair identify 1-2 papers in their work plans for submission to the peer review journal during the following year. A proposal was made to engage scientists from developing CPCs in the drafting of such papers.

The Group discussed the issues resulting from a high number of SCRS papers being withdrawn from the list of those published in the ICCAT Collection of Volumes of Scientific Papers. Among these are often papers that were relevant for the stock assessment and/or the responses to the Commission. To overcome this problem a proposal was made for the list of withdrawn papers to include the respective summary.

Another proposal was made for the SCRS to discuss the possibility to make all SCRS documents and presentations freely available, as ICCAT is currently the only t-RFMO that has not yet adhered to this policy.

7. Composition of Programme Steering Committees

The Group discussed the role, function and composition of Steering Committees for large research programs. The Chair put forth two main questions: When should research programs have a Steering Committee; and, if there is a Steering Committee, then what should the composition of it be?

The Chair reviewed the existing Steering Committee membership. This typically includes the Executive Secretary, the Chair and/or Vice-chair of the SCRS, as well as the relevant Species Group rapporteur(s). In some cases, there are also external experts. Funders and coordinators may also sit (as observers) on the committee.

The Group identified the external expert as a key participant of the Steering Committee, because their role is important for ensuring that the work is high quality and independent.

The Group agreed that some steps are needed to improve the transparency of Steering Committees. This could be improved by posting previous meeting minutes, as well as a meeting announcement with a draft agenda before each meeting. This way, there would be opportunities for others to contribute agenda items through their respective Species Group rapporteur, the SCRS Chair, or the programme coordinator. Moreover, it would be useful to clearly define and post the names and roles of the participants. This would ensure that people outside of the Steering Committees would know the participants' roles and could contact them if need be. Communicating these roles, the meeting minutes, and the agendas for Steering Committee meetings would improve the overall transparency of the process.

Finally, the Group discussed when Steering Committees are needed. A variety of suggestions were discussed. These included having a Steering Committee that would assume the responsibility for several smaller research programmes rather than having a single Steering Committee for each research programme. It suggested that it was appropriate to have a Steering Committee for large projects when there is a significant fiduciary duty and/or risk of conflict of interest. In these cases, the Steering Committee would ensure that project spending was consistent with the objectives of the project. The Group made no conclusions about when Steering Committees were needed. Further discussion on this issue is required.

8. Follow up on the Second Performance Review Panel

The Chair informed of the follow up on the recommendations from the second external performance review of ICCAT. It was indicated that an Excel file has been created to summarize the recommendations, and due to time restrictions, the Chair and Vice-Chair of the SCRS proposed to review and update this file and present it during the next SCRS meeting in September. The Group agreed with this proposal.

9. Recommendations

Recommendations with financial implications (prioritization process for SCRS research)

Available research funding from all sources may be limited or reduced in the future, so there is a need for the SCRS to prioritize the research recommendations with financial implications that it provides to the Commission in the annual SCRS Report. The prioritization process should be carried out in a hierarchical fashion, starting with a ranking within each Species Group of the research recommendations that emerge from the annual Species Groups discussions. These prioritized recommendations will be forwarded to a meeting that is attended by the SCRS Officers (e.g. the annual SCRS Officer's meeting which precedes the SCRS Plenary), along with an explanation/justification of the ranking determinations. At the SCRS Officers meeting, a draft ranked list of the research recommendations across Species Groups will be developed and submitted to the SCRS plenary session for review and adoption.

Rankings should be produced, taking into account (at least) the following factors:

- Relative potential to improve the SCRS advice to the Commission (e.g. defining basic life history parameters which influence stock assessments/vulnerability analyses, substantial improvements to inputs to stock assessment, such as fishery-independent/dependent indices, catch/bycatch estimates, or large research program with multiple uses (ex: AOTTP, GBYP))
- Alignment with the SCRS Strategic Plan
- Level of scientific collaboration between CPCs
- Contributions to capacity building

Of these factors, the greatest weight should be given to the degree to which the recommended research is expected to improve SCRS advice to the Commission, followed by the contribution to capacity building. Given the substantial differences between specific, short to medium term projects and longer term, large research programs, consideration should be given to ranking these in separate processes.

Recommendations related to research funding

There have been a number of challenges associated with project spending the allocated research fund due to variable internal policies (CPC), timing of funds availability and restricted timeframes for completion of the projects. Recommendations were made to help overcome these challenges:

- Some flexibility need to be built into the process to accommodate intra-CPCs regulations and alternative approaches explored to overcome common issues.
- Given the difficulties in making full use of funding when constrained by annual budget deadlines, it is highly recommended to develop a means to permit programme extensions or to have longterm funding (e.g. funds which can carryover across fiscal years).
- It was also recommended that the ICCAT Commission, following their biannual budget structure, allow the Secretariat to issue biannual contracts for research activities. This will allow better use and planning of research activities within the Species Groups and the SCRS, also ensuring that data collection is carried out in a complete annual cycle with sufficient time for subsequent analysis.

Recommendations related to data issues

- The Group recommended that the Sub-committee on Statistics should develop a workplan for the meta-database on biological sampling data and call it "Biological sampling data".
- The Sub-committee on Statistics should define with the Secretariat the standard structures for Task 3 datasets, with support vessels (ST07), PS FAD deployment (ST08) and Port sampling (ST10) having the same resolution and structure as Task 2, and study the feasibility of having an aggregated format to disseminate the domestic observer data (taking into account the new revision made to ST09).
- To avoid post-hoc discussion about the fate of data collected under the auspices of ICCAT, the Group recommended that research programs financed by ICCAT include a data management program describing the storage, management, and sharing plan for data collected under such programs throughout the duration of the project and following program completion.
- The Group recommends that the Sub-committee on Statistics check with CPCs to identify what level of data resolution they consider confidential.
- A decision on the "Proposal for Amendment of the Rules and Procedures for the protection, access to, and dissemination of data compiled by ICCAT", as described Annex 11 to the *Report for Biennial Period 2018-2019, Part II (2019), Vol. 2,* was deferred to the 2020 Sub-committee on Statistics meetings Furthermore, the Group suggested that the list of issues regarding data dissemination be compiled and that the data dissemination policy be reviewed by the Species Group rapporteurs. The list of issues and the data dissemination policy would be discussed by the Subcommittee on Statistics for adoption during the 2020 SCRS plenary meeting.

Recommendations related to "Exemptions from reporting requirements SHK 7005 and BIL 5001"

- The Group recommended that after a review by the Species Groups, the SCRS should review and finalize the proposed guidelines for what CPCs need to demonstrate in order to be granted exemptions, and recommend these to be forwarded to the Commission.

Recommendations related to dissemination of relevant themes for the SCRS plenary

 The Group recommended the SCRS Chair circulate a letter highlighting all relevant issues and documents to be discussed by the SCRS plenary as soon as possible before the meeting. Alternatively, the Secretariat should provide an annotated agenda for the SCRS as soon as possible before the plenary.

Recommendations related to composition of data collection and research programs' Steering Committees

- All Steering Committees should post meeting agendas and minutes of previous meetings before each meeting, including decisions made about each agenda item.
- Steering Committees should define and post their composition and the roles of their members.
- Programme Coordinator should be a member of the Steering Committee with observer status, and thus be excluded from voting.
- Funding agencies/organizations should be allocated one seat on the Steering Committee as an observer without voting privileges.
- Explore capacity building options to allow members of the SCRS to learn how to chair Steering Committee meetings.
- Large research project Steering Committees should have an independent external reviewer(s) with a minimum of 1 but preferably 2 reviewers.

10. Other matters

Exemptions from reporting requirements SHK 7005 and BIL 5001

The Group discussed the issue of granting exemptions from requirements for reporting data from CPCs that did not have fishing activities catching those species. The background document on guidelines was revised and the modified list is included as **Appendix 7**.

Due to the lack of time other matters proposed by the Secretariat were deferred to the next SCRS plenary. These included: i) the use a template for the compilation of budget requests by the SCRS Sub-committees and Species Groups; and, a procedure to inform about the reasons for the rejection of papers or presentations to SCRS meetings.

11. Adoption of the report

Due to the limited time many sections of the report were not reviewed. Accordingly, sections 3.2 to 11 (inclusively) were adopted electronically after the meeting, the remainder of the report having been adopted during the meeting. The meeting was adjourned.

References

Galland, G., Rogers, A. and Nickson, A., 2016. Netting billions: a global valuation of tuna. The Pew Charitable Trusts, Washington, DC, USA.

Agenda

- 1. Opening, adoption of agenda and meeting arrangements
- 2. SCRS 2021-2025 Strategic Plan
- 3. SCRS Research Priorities 2021 2025
 - 3.1 Current and future funding
 - 3.2 Priorities and basic research
 - 3.3 Role of the Secretariat
- 4. MSEs (roadmap) and stock assessments (5-year plan)
- 5. Data policy: dissemination, requests and procedures
- 6. Submission of scientific paper / presentations at meetings and publication guidelines
 6.1 Submission of scientific papers/presentations at meetings
 - 6.2 Publication guidelines (new species Executive Summaries and meeting reports)
 - 6.3 Access to SCRS papers
- 7. Composition of Program Steering Committees
- 8. Follow up on the Second Performance Review Panel
- 9. Recommendations
- 10. Other matters
- 11. Adoption of the report

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List of presentations

Number	Title	Authors
SCRS/P/2020/001	The "new" SCRS Task-3 and the ICCAT data dissemination policy	Secretariat
SCRS/P/2020/002	Overview of Secretariat Tasks related to SCRS activities	Secretariat
SCRS/P/2020/003	Overview on funding of SCRS activities	Secretariat

SCRS presentations abstracts as provided by the authors

SCRS/P/2020/001 – presented an overview of the new Task 3 definition and related data, also as guidance on how the new Task 3 datasets can be categorised within the current ICCAT data dissemination policy in terms of "risk classification" associated to the their public dissemination. It also provides an overview of additional biological sampling data housed in ICCAT (not in databases) outside the scope of the new Task 3. The majority of this information was obtained under the ICCAT research and data collection programmes (GBYP, AOTTP SRDCP, SMTYP, EPBR, etc.). Several options were proposed to classify and manage this biological sampling information in the future.

SCRS/P/2020/002 - provided an overview of the regular tasks developed by the Secretariat related to the SCRS activities. The presentation presented the evolution of the number of ICCAT meetings per year, the diversity of the tasks conducted by the different departments and related workload increase, the current status of different tasks and projects. Finally, the main challenges faced by the Secretariat are listed, as well as a number of requests related to relevant matters to be addressed by the SCRS as regards the Secretariat's role.

SCRS/P/2020/003 – provided an overview of the SCRS activities funding between 2016 and 2020, including: funding sources, funded activities and allocated funds. The evolution of the amounts provided by the different funding sources showed an increasing trend in voluntary contribution and the ICCAT regular budget, and decreasing use of the ICCAT Working Capital Fund. A breakdown of the different funding assigned to each working group was also provided, as well as a comparison between the total amount requested, the allocated funds and the amount effectively used by the SCRS. Finally, it lists alternative ways to ensure the stability of SCRS funding and to ensure the effective use of the available funds.

Road map for the development of Management Strategy Evaluation (MSE) and Harvest Control Rules (HCR)

Document adopted during the 2019 Commission meeting and revised during the meeting (changes are underlined)

This schedule is intended to guide the development of harvest strategies for priority stocks identified in Rec. 15-07 (North Atlantic albacore, North Atlantic swordfish, eastern and western Atlantic bluefin tuna, and tropical tunas). It builds on the initial road map that was appended to the 2016 Annual Meeting report. It provides an aspirational timeline that is subject to revision and should be considered in conjunction with the stock assessment schedule that is revised annually by the SCRS.* Due to the amount of cross-disciplinary dialogue that may be needed, intersessional Panel meetings and/or meetings of the Standing Working Group to Enhance Dialogue between Fisheries Scientists and Managers (SWGSM) may be necessary. The aspirational nature of this timeline assumes adoption of a final management procedure for northern albacore in 2020 and interim management procedures for bluefin tuna and northern swordfish in 2022 and tropical tunas as soon as 2023, however the exact timeline for delivery is contingent on funding, prioritization, and other work of the Commission and SCRS.

* For 2015 through 2019, road map reflects progress to-date in some detail. For 2020 onward, more general steps for the SCRS and Commission are anticipated pending outcomes of the 2019 Annual Meeting.

	Northern Albacore	Bluefin Tuna	Northern Swordfish	Tropical Tunas
2015	- Commission established management objectives in Rec. 15-04			
2016	 SCRS conducted stock assessment SCRS evaluated a range of candidate HCRs through MSE PA2 identified performance indicators 			- Commission identified performance indicators (Rec. 16- 01)
2017	 SCRS evaluated the performance of candidate HCRs through MSE, using the performance indicators developed by PA2 SWGSM narrowed the candidate HCRs and referred to Commission Commission selected and adopted an HCR with associated TAC at the Annual Meeting (Rec. 17-04) 	- SCRS conducted stock assessment - Core modelling group completed development of modelling framework	- SCRS conducted stock assessment	- SCRS reviewed performance indicators for YFT, SKJ, and BET - SWGSM recommended a multispecies approach for development of MSE framework
2018	 SCRS contracted independent expert to complete peer review of MSE code Call for Tenders issued for peer review SCRS tested the performance of the adopted HCR, as well as variations of the HCR, as requested in Rec. 17-04 SCRS developed criteria for the identification of exceptional circumstances 	 SCRS conducted joint MSE meeting on BFT/SWO SCRS reviewed but could not adopt reference set of OMs SCRS began testing candidate management procedures (MPs) SWGSM considered qualitative management objectives BFT WG reviewed progress and developed detailed road map Commission adopted conceptual management objectives (Res. 18-03) 	 SCRS conducted joint meeting on BFT/SWO MSE SCRS contracted MSE technical expert to develop OM framework, define initial set of OMs, and conduct initial conditioning of OMs SWGSM considered qualitative management objectives 	 SCRS contracted with technical experts: start development of MSE framework (phase I) SCRS conducted bigeye tuna stock assessment

	Northern Albacore	Bluefin Tuna	Northern Swordfish	Tropical Tunas
2019	 SCRS addressed recommendations of the peer reviewer SCRS updated performance of the interim HCR and variants SCRS produced consolidated report on MSE 1. COMM: PA2 to consider possible approaches that could be useful in developing guidance on a range of appropriate management responses if exceptional circumstances occur, including those implemented by other RFMOs 	 SCRS held three BFT MSE Technical Group meetings with significant progress but advised at least one additional year of work needed SCRS continued to evaluate candidate MPs At intersessional meeting, PA2 reviewed and developed initial operational management objectives and identified performance indicators SCRS to hold December webinar to review OM progress COMM: PA2 to review MSE progress and advise the Commission on next steps, including need for an update of the stock assessment to provide TAC advice for at least 2021 	 SWO Species Group meeting SCRS contracted with technical expert to develop initial MSE framework Commission to consider, and if possible, adopt conceptual management objectives at the Annual Meeting 	- SCRS conducted yellowfin tuna stock assessment
2020	1. COMM (PA2) to develop guidance intersessionally on a range of appropriate management responses should exceptional circumstances be found to occur <u>(5-6, March, PA2</u> <u>intersessional)</u>	1. SCRS to conduct stock assessment update and develop TAC advice for 2021 and 2022	1. SCRS to continue development of MSE framework, including the finalization of operating model conditioning and the uncertainty grid	1. SCRS to conduct skipjack data preparatory meeting
	2. COMM (PA2) to review interim HCR and recommend MP to the Commission for possible adoption at the Annual Meeting <u>(5-6, March, PA2</u> <u>intersessional)</u>		2. SCRS to develop example candidate MPs	2. SCRS to continue MSE development.
	3. SCRS to conduct NALB stock assessment (in June)	2. SCRS to initiate independent peer review of MSE code		

	Northern Albacore	Bluefin Tuna	Northern Swordfish	Tropical Tunas
2020	4. SCRS to evaluate existence of exceptional circumstances	3. SCRS to propose criteria for determining exceptional circumstances		3. COMM (PA1) to review and provide feedback on MSE progress either intersessionally or during the Annual Meeting (Alternatively could take place in 2021)
	5. COMM to: a. review and endorse guidance developed intersessionally on management responses in the case of exceptional circumstances b. review the interim HCR and adopt a long-term MP, including the TAC, at the Annual Meeting	4. COMM (PA2) – Intersessional Meeting (March)		4. COMM (PA1) to recommend initial operational management objectives and to review and revise the performance indicators agreed by the Commission in 2016, either intersessionally or during the Annual Meeting (Alternatively could take place in 2021)
		4. COMM to review candidate MPs at the Annual Meeting		
		5. COMM to set TACs for at least 2021, based on stock assessment update, at the Annual Meeting		
2021	1. SCRS to continue intersessional work		1. SCRS to continue development and testing of candidate MPs	1. SCRS to continue development and testing of candidate MPs
			2. SCRS to propose criteria for determining exceptional circumstances	2. SCRS to conduct skipjack stock assessment (timing to be determined)
			3. SCRS to initiate independent peer review of MSE code	3. SCRS to conduct bigeye data preparatory meeting (timing to be determined)

	Northern Albacore	Bluefin Tuna	Northern Swordfish	Tropical Tunas
2021			4. COMM (SWGSM/PA4) to recommend initial operational management objectives and identify performance indicators either intersessionally or during the Annual Meeting	4. SCRS to conduct bigeye stock assessment (timing to be determined)
		 COMM (SWGSM/PA2) intersessionally to: review MSE progress, review preliminary candidate MP results, and provide feedback to SCRS; [recommend final operational management objectives and identify performance indicators]; and develop guidance on a range of appropriate management responses should exceptional circumstances be found to occur 	5. COMM (SWGSM/PA4) to review MSE progress, example candidate MP results, and provide feedback to SCRS, either intersessionally or during the Annual Meeting	
		2. SCRS to initiate independent peer review of MSE process		
		3. SCRS to complete MSE, incorporating feedback from Commission through PA2/SWGSM		
		4. SCRS to provide final advice to the Commission on criteria for determining exceptional circumstances	6. SCRS to conduct stock assessment	

	Northern Albacore	Bluefin Tuna	Northern Swordfish	Tropical Tunas
2021		5. COMM (SWGSM/PA2) and SCRS to refine MP(s) and to review and finalize, as needed, guidance on a range of appropriate management responses should exceptional circumstances be found to occur	7. COMM (SWGSM/PA4) to review results of performance of initial candidate MPs either intersessionally or during the Annual Meeting	5. COMM (SWGSM/PA1) to review MSE progress, preliminary candidate MP results, and provide feedback to SCRS either intersessionally or during the Annual Meeting
		6. COMM to: a. review and endorse guidance developed intersessionally on management responses in the case of exceptional circumstances, and b. adopt an interim MP at the Annual Meeting, including a 3-year TAC		6. COMM (PA1) to finalize operational management objectives and performance indicators at the Annual Meeting
<u>2022</u>	1. SCRS to continue intersessional work		<u>1. SCRS to initiate independent peer</u> review of MSE process	<u>1. SCRS to continue MSE</u> <u>development, including developing</u> <u>and evaluating candidate MPs</u>
				2. SCRS to propose criteria for determining exceptional circumstances
				<u>3. SCRS to initiate independent</u> peer review of MSE code
			2. SCRS to provide final advice to the Commission on criteria for determining exceptional circumstances	<u>4. COMM (SWGSM/PA1) to develop</u> <u>guidance on a range of appropriate</u> <u>management responses should</u> <u>exceptional circumstances be found</u> <u>to occur</u>

	Northern Albacore	Bluefin Tuna	Northern Swordfish	Tropical Tunas
2022			3. COMM (SWGSM/PA4) and SCRS to: - refine MP(s) and to review and finalize, as needed, guidance on a range of appropriate management responses should exceptional circumstances be found to occur; - recommend final operational management objectives and identify performance indicators (early in 2022)	<u>5. COMM to review candidate MPs</u> <u>at the Annual Meeting</u>
			<u>4. SCRS to complete MSE.</u> <u>incorporating feedback from</u> <u>Commission through PA4/SWGSM</u>	[]
			 5. COMM to: a) review and endorse guidance developed intersessionally on management responses in the case of exceptional circumstances, and b) adopts an interim MP at the Annual Meeting, including the TAC 	[]
<u>2023</u> and beyond*	<u>1. Once an MP is adopted, SCRS to</u> <u>conduct assessments to ensure that</u> <u>the conditions considered in MP</u> <u>testing are still applicable to the</u> <u>stock. The first benchmark</u> <u>assessment is scheduled for 2023</u>	<u>1. Once an MP is adopted, SCRS to</u> <u>conduct assessments to ensure that</u> <u>the conditions considered in MP</u> <u>testing are still applicable to the stock</u>	<u>1. Once an MP is adopted, SCRS to</u> <u>conduct assessments to ensure that</u> <u>the conditions considered in MP</u> <u>testing are still applicable to the stock</u> []	<u>1. SCRS to complete MSE,</u> <u>incorporating feedback from</u> <u>Commission through SWGSM/PA1</u>

	Northern Albacore	Bluefin Tuna	Northern Swordfish	Tropical Tunas
2023 and beyond*	2. On the predetermined timescale for MP setting, SCRS to evaluate existence of exceptional circumstances	2. On the predetermined timescale for <u>MP setting, SCRS to evaluate existence</u> of exceptional circumstances	2. On the predetermined timescale for <u>MP setting, SCRS to evaluate existence</u> of exceptional circumstances	2. SCRS to provide final advice to the Commission on criteria for determining exceptional circumstances
				<u>3. SCRS to initiate independent</u> peer review of MSE process
	3. COMM to continue use of the MP to set TAC at the Annual Meeting, on the predetermined timescale for MP sett <u>ing</u>	3. COMM to continue use of the MP to set TAC based on the MP at the Annual Meeting, on the predetermined timescale for MP set <u>ting</u>	3. COMM to set TAC based on the MP at the Annual Meeting, on the predetermined timescale for MP sett <u>ing</u>	4. COMM (SWGSM/PA1) and SCRS to refine MP(s) and to review and finalize, as needed, guidance on a range of appropriate management responses should exceptional circumstances be found to occur
				5. COMM to: a) review and endorse guidance developed intersessionally on management responses in the case of exceptional circumstances, and b) adopt interim MP(s) at the Annual Meeting, including TACs, where applicable
2024 and beyond*	<u>See 2023 row</u>	<u>See 2023 row</u>	<u>See 2023 row</u>	<u>1. Once an MP is adopted, SCRS to</u> <u>conduct assessments to ensure that</u> <u>the conditions considered in MP</u> <u>testing are still applicable to the</u> <u>stock</u>
				2. On the predetermined timescale for MP setting, SCRS to evaluate existence of exceptional circumstances

	Northern Albacore	Bluefin Tuna	Northern Swordfish	Tropical Tunas
2024 and beyond*	[]	[]	[]	3. COMM to continue use of the MP to set management measures at the Annual Meeting, on the predetermined timescale for MP setting
				[]
				[]
				[]

*Assumes that the workplan is accomplished as described.

LIST OF ACRONYMS:

BET = Bigeye tuna BFT = Bluefin tuna BFT WG = SCRS' Bluefin Tuna Working Group HCR = Harvest Control Rule MP = Management Procedure MSE = Management Strategy Evaluation OM = Operating Model SCRS = Standing Committee on Research and Statistics SWGSM = Standing Working Group to Enhance Dialogue between Fisheries Scientists and Managers TAC = Total Allowable Catch TRO = Tropical tunas

Appendix 6

Five year plan for the scheduled stock assessment/evaluation

		Last assessed	2020	2021	2022	2023	2024	Notes	
Tropical Tunas	Yellowfin tuna	2019							
	Bigeye tuna	2018	Data-prep	Full assessment					
	East Skipjack	2014	Data-prep	Full assessment					
	West Skipjack	2014	Data-prep	Full assessment					
	North Atlantic Albacore	2016	Full assessment						
Albacore	South Atlantic Albacore	2016	Full assessment						
	Mediterranean Albacore	2017		Full assessment					
Bluefin tuna	East Atlantic	2017	Full assessment						
Blueini tuna	West Atlantic	2017	Full assessment						
	Blue marlin	2018							
Billfishes	White marlin	2019							
Dimsties	Sailfish East	2016			Full assessment				
	Sailfish West	2016			Full assessment				
	North Atlantic Swordfish	2017		Full assessment				Current TAC expires in 2021	
Swordfish	South Atlantic Swordfish	2017		Full assessment				Current IAC expires in 2021	
	Mediterranean Swordfish	2016	Full assessment					Current Rec. asks for an updated assessment in 2019 but Comm agreed to pospone to 2020; TAC is set until 2022	
	Blue shark North	2015		Full assessment				Current Rec asks for a stock assessment in 2021	
	Blue shark South	2015		Full assessment					
	Shortfin mako North	2017/2019							
Sharks	Shortfin mako South	2017/2019							
Snarks	Porbeagle NE	2009	Full assessment						
	Porbeagle NW	2009	Full assessment					Likely more focused on NW (data-limited methods); NE may be posponed to work in 2021 with ICES; SE and SW maybe revise ABNJ South Oceans	
	Porbeagle SE	2009	Full assessment					assessments?	
	Porbeagle SW	2009	Full assessment						

Small tunas*

official carries					
Small tunas	BLF - Blackfin tuna	x	x		
	BLT - Bullet tuna	x	x		
	BON - Atlantic bonito	x	x		
	BOP - Plain bonito	x	x		Assessment will depend on data availabily and quality.
	BRS - Serra Spanish mackerel	x	x		
	CER - Cero	x	x		
	FRI - Frigate tuna	x	x		
	KGM - King mackerel	x	x		
	LTA - Little tunny	x	x		
	MAW - West African Spanish mackerel	x	x		
	SSM - Atlantic Spanish mackerel	x	x		
	WAH - Wahoo	x	x		
	DOL - Dolphinfish	x	x		

* Likely with data-limited approaches starting in the future.

Guidelines to assess the CPs' requests for exemptions from reporting requirements SHK 7005 and BIL 5001

CPCs requesting exemptions from reporting requirements SHK 7005 and BIL 5001, shall present the following to the SCRS Shark/Billfish Species Groups:

- 1. For CPCs that do not have active fleets targeting tuna and tuna-like species in the ICCAT area:
 - i. Declaration/evidence that the CPC does not have active fleets on fisheries targeting tuna and tuna-like species in the ICCAT area.
- 2. For CPCs that have active fleets on fisheries targeting tuna and tuna-like species in the ICCAT area:
 - i. Distribution of ICCAT shark/billfish species does not overlap the area of fishing activities of the CPC.
 - ii. Evidence (e.g., report of scientific surveys or report of onboard observer programme) that clearly demonstrates that no interactions of ICCAT sharks/billfish species with gears used in the CPCs' fisheries targeting tuna and tuna-like species in the ICCAT area of competence:
 - a) such surveys should cover all seasons with multiple trips to ensure that relatively rare events of catches of some rare by-catch species can be detected.
 - b) such surveys should include a high degree of spatial coverage of fishing effort by gear type.
 - c) such observer programmes shall have a high degree of spatial-temporal coverage in terms of annual effort by gear.
 - iii. Present a plan of periodic review of the need for reporting shark/billfish species, including the calendar years when such periodic review should be undertaken.