



CCSBT-EC/2110/09 (Rev.1)

**Chair's report of the Twenty Sixth Meeting of the Extended Scientific Committee  
(EC Agenda item 6)**

This short report describes and summarises the key activities and advice from the Twenty-sixth Extended Scientific Committee (ESC26) of the CCSBT. The full report is at CCSBT-EC/2110/Rep02.

**Stock Status and Management advice**

In 2019, the ESC recommended, and the EC adopted, a new management procedure to guide the setting of the global TAC. That procedure was developed to meet agreed strategic objectives set by the EC. The procedure is known as the Cape Town Procedure or CTP. In 2020 the ESC ran the CTP and recommended an annual TAC of 17,647 tonnes for the period 2021 to 2023. The EC adopted the recommended TAC.

In 2021, ESC26 did not undertake any new stock assessment or run the CTP. It did follow the process agreed in 2020 to check if there is any scientific or technical reason to recommend any adjustment to the TAC. None was noted and the ESC therefore recommends that the global TAC in 2022 should remain at 17,647 tonnes.

As no new stock assessment was conducted, the advice on stock status remains the same as in 2020. Since 2017 the ESC has reported stock status based on a measure of total reproductive output or TRO. The 2020 stock assessment indicates that current status relative to initial TRO is 20% and that the stock has grown steadily from its low point in 2009. As indicated by the 2020 stock assessment that low point was just under 10% of initial TRO.

While no new stock assessment was conducted in 2021, the ESC reviewed the catch per unit effort (CPUE) from multiple fleets and fishery independent indices used in stock assessment and the CTP. It concluded that the indicators are consistent with the 2020 stock assessment and that the stock is expected to continue increasing under current management arrangements.

A new stock assessment is scheduled for 2023. The CTP is scheduled to be run in 2022 to allow recommendation of TAC for the period 2024-2026. Unusually, and because in 2020 a problem was noted in the way the standard CPUE index used in the CTP was being calculated, the ESC will also in 2022 be "reconditioning" the model used for stock assessments and for developing the CTP.

## **Progress on CPUE modelling and implications**

Catch per unit effort (CPUE) data need to be statistically analysed to develop indices that relate to stock abundance. These CPUE indices may then be used alongside other datasets to inform stock assessments as well, potentially, in management procedures such as the CTP. A key CPUE dataset for SBT assessment and the CTP is from Japanese longline fleet. In 2020, following extensive analysis, it was realised that one unusually high index point calculated for 2018 was caused by the way the statistical models treat areas that have not been fished in a given point in time are therefore “missing cells”. As fishing has increasingly contracted over time, there has been an increasing number of missing cells and the importance of the way this is modelled has grown.

In essence, as fishing has contracted to fewer places and time periods, the statistical methods have had to predict CPUE for more and more cells with no data from fewer and fewer cells with data, and with increasingly large gaps.

During the past year, there has been extensive inter-sessional work on understanding the problem and developing new statistical modelling approaches to deal with it. The collaborative work has focused on improved methods of interpolating predictions for missing cells and has now progressed to the point where it is expected that a refined CPUE index will be calculated in 2022 using a new, agreed statistical method in time for the midyear technical (OMMP) meeting.

At that OMMP meeting, the so-called operating model used for stock assessment and management procedure development will be reconditioned using the new CPUE index as well as other updated data. This would normally only be done in stock assessment years so in addition to being necessary for any CTP testing and running, it provides an opportunity also to test ideas on providing advice on potential future TACs.

## **Improving communication between the ESC and EC**

At the 2020 EC meeting, some Members were concerned that when adopting the CTP in 2019 they had expected that the TAC for 2021-2023 would increase. They were therefore surprised in 2020 when this did not happen and were critical of the way the ESC had communicated. Particular attention was paid by some Members to a figure in the 2019 ESC report showing a median future catch trajectory from the management procedure testing, which some Members interpreted as indicating that the TAC for 2021-2023 would increase.

This issue led to an ESC agenda item on communication between the ESC and EC. Discussion at the ESC was wide ranging, considering potential ways to improve communication in general, as well as on the specific, motivating reason on better advising on potential future TACs.

Discussion at ESC26 on how to provide advice on potential future catches led to some ideas for graphical and tabular presentations that could be made when the stock assessments are run. Given the current work schedule, that would mean providing tentative advice on future TACs in 2023 for the 2027-2029 TAC and in 2026 for the 2030-2032 TAC. However, because of the unusual situation in 2022 when the operating model will be reconditioned out of schedule to accommodate a revised CPUE index, there is an earlier opportunity to provide advice on the 2027-2029 TAC. The exact mode of advice will be further refined with input from members.

Discussions on more general improvements in communication led to suggestions by the ESC. These include the preparation of non-technical summaries as factsheets or for use on the

CCSBT website; inclusion of “plain language” summaries at key ESC report sections; provision of a separate Chair’s Report; in-country seminars or webinars on request with the Expert Panel, ESC Chair and own-Member scientists; and informal pre-EC science briefings with the Chair.

### **Scientific Research Plan**

Updating of the Scientific Research Plan or SRP has been delayed due the heavy workload of the ESC and its Member scientists. At ESC26, the agenda allowed a thorough discussion and planning. The ESC reaffirmed the necessity of certain data for stock assessment and CTP purposes. These are provided for in the workplan. It also set up inter-sessional activities to provide a rigorous process for proposing and prioritising scientific and technical projects. The intention is that from 2022 onwards, all projects will be evaluated using the new process and that all projects presented in the workplan for FAC and EC consideration will be fully justified and ranked.

### **Budgetary implications**

The budgetary implications of the ESC’s workplan will be included in paper CCSBT-EC/2110/06 on the Draft 2022 and Indicative 2023-2024 Budgets.

**Prepared by the Secretariat**