



Australian Government
Australian Fisheries Management Authority

Total Allowable Catch (TAC) setting
process

Guidelines for provision of data and
stock assessment processes

Updated August 2021

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Total Allowable Catch setting process

The following process has been developed and approved by the Southern and Eastern Scalefish and Shark Fishery Resource Assessment Group (SESSF RAG) to provide direction to resource assessment groups (RAGs), to ensure that the TAC setting process is conducted in the most efficient and cost effective way each year.

1.1 Preparing for Resource Assessment Group meetings

To ensure that members have seats at the table and access to power etc. at RAG meetings, AFMA executive officers (EOs) are to send a list of potential observers to the Chair to approve before the meeting. EOs and Chairs to ensure that only approved observers are in the room.

Assessments are to be provided to the AFMA EO at least one week before the meeting for sending out. If the assessment cannot be provided in time, a decision should be made by AFMA and the RAG Chair to whether the assessment is presented at the first meeting, out of session or at a later date. There is a risk that changes may be identified after the assessment is submitted but it is important that RAG members have sufficient time to consider the documents before the meeting.

Unless there are exceptional circumstances, assessment scientists should be available to discuss the assessment at RAG meetings (either in person or by phone/video link).

1.2 Validation of AFMA data

It is important to validate the data (i.e. look for obvious errors) prior to the annual data transfer from AFMA to CSIRO. To facilitate checking AFMA are to provide CSIRO with a provisional extract of the AFMA data sources in February, prior to the regular data dump. A set of agreed data checks should be identified and undertaken by the appropriate AFMA representative or their delegate (e.g. AFMA Observer Coordinator for ISMP data, AFMA Database Manager for logbook data). Once these data are provided to CSIRO, if errors are found then discussions between CSIRO and AFMA (or other data provider) will need to occur to determine the consequence of these errors on the assessment timeframe (delays or non-assessment) and the potential additional costs of correction and assessment production.

AFMA and CSIRO will meet prior to the transfer of the final data, likely late March, to identify and rectify any issues before final data is sent. Diagnostic tests such as plots and tables addressing the checks listed above should be presented by AFMA and CSIRO by prior arrangement (see Appendix 1).

A summary of the checks and any corrections made to the data will be presented to the SESSFRAG Data Meeting.

1.3 Timing of provision of data to research providers

It is important that data is provided to research providers with sufficient time to allow for it to be incorporated into assessments and data reports. AFMA to ensure logbook catch and effort data, catch disposal record (CDR) data, observer data and industry collected data (i.e. GABIA and SIDaC) as well as GABFIS data is available to allow processing before the SESSFRAG Data Meeting.

If data is not provided by the dates below it will only be included after due consideration to the practicality of the research provider being able provide reports in time for the subsequent RAG meetings.

Provisional AFMA data – 15 February

AFMA / CSIRO data validation video conference – 30 March

Final AFMA data – 30 April

Age data – 30 June

State catch data – 30 June

GABT crew-collected data - 30 June¹

GABFIS, SETFIS – 30 June¹

1.4 Review of data used for assessment and management

Timely and cost-effective provision of assessments and related analyses requires decisions on the data to be reviewed by the following dates. Note that any further changes to data outside of the dates above can only be agreed with due consideration to the practicality of the research provider being able to make the changes and provide reports in time for the subsequent RAG meeting. Depending on the nature of the delay this may require delaying, or scheduling additional RAG meetings, undertaking assessments without some of the data or delaying the work to the following year.

At the SESSFRAG Data Meeting most data should be agreed, in particular:

- Recent catches,
- Standardized CPUE,
- Discard estimates, and
- Historical catch reconstructions.

At the first assessment RAG meeting the following should be agreed

- Length and age data, and
- Any other data (e.g. abundance from surveys).

1.5 Presentation of base case and final assessments

For existing tier 1 assessments, exploration of potential base cases, which may include variations of fixed parameters (e.g. natural mortality, stock recruitment steepness), to be presented at the first meeting. The base case and a set of standard sensitivities to be agreed by the RAG at the first meeting before presentation of the final assessment at the second meeting. If there are any significant changes proposed to the base case, the stock assessment scientist should notify AFMA and the RAG Chair and a decision may be made to consider this change in an additional RAG telephone meeting prior to the final meeting.

If a base case is not agreed at the first RAG meeting a small number of candidate base cases (ideally no more than two) can be tuned and presented without RBCs at the second RAG meeting with an agreed set of full sensitivities to a single candidate base case, or a reduced set of sensitivities to both, nominated at the first meeting. Once a base case is accepted by the RAG at the second meeting the RBC will be provided, for that base case only.

¹ From 2020 this data will be included in the AFMA database and provided by 30 April.

1.6 Publication of final assessments

Data used in assessments and, where available, assessment control files², should be archived by the research provider and a copy also provided to AFMA for archiving. AFMA will hold the groomed dataset and control files and will review on a case-by-case basis whether the data should be released, in consultation with the original author where appropriate.

Final assessment reports should be approved by AFMA and made available online.

1.7 Process for considering untested assessment approaches

The RAG is open to considering untested (including new) assessment methodologies, not currently in the assessment toolbox. Unless there are exceptional circumstances, an untested methodology should not be introduced for consideration in the year of an assessment. The following provides a **general** guide for considering untested assessment methods.

- A set of standard data and a statement of required outputs should be made available by the RAG for the assessor to test an untested assessment methodology (e.g. one data set from a data rich species (e.g. deepwater flathead) and one data set from a data poor species).
- The test assessment should be documented and presented, along with any published scientific reviews, to the RAG.
 - The proposer should also document the benefits of the methodology.
- Based on these results, the RAG would provide advice whether this assessment should proceed to simulation testing by the proposer (if not already done). This should be based on technical advice as well as the cost of the assessment methodology.
- Following consideration of simulation testing, ideally the newly tested assessment (if recommended to continue) would be undertaken in parallel with the existing assessment methodology. This means that the full impact of the different assessments can be rigorously reviewed and the RAG would decide which assessment to adopt for the purposes of TAC recommendations.
- The RAG would need to decide whether a base case version would be undertaken (i.e. pick an accepted assessment and scenario) or some other methods should be used (e.g. ensemble methods applying multiple model outputs). [Discount factors should also be considered during this process].

² Control files may not be available for all assessments, e.g. close-kin

Appendices

Appendix 1 Data Validation

The data checks that should be undertaken by AFMA and CSIRO prior to the annual March video conference should include:

- Checks of extreme discard weight observations.
- Checks of extreme length observations (unusually large or small fish).
- Unusual shifts, peaks or troughs in the length frequency distributions for each species.
- Outliers in weight of fish caught or amount of effort expended.
- Unexpectedly low or high catches for each species: in aggregate over the year, or within any given month or zone.
- Unexpected shifts towards or away from certain gear types
- Unusually large numbers of records that are missing data for commonly used fields e.g. (but not limited to) fields relating to position, date, gear and effort, weight caught, processing code.
- Large numbers of SIDaC records that have not been linked to records in the logbook dataset.

The outcomes from these checks are to be presented to the SESSFRAG Data Meeting.