

6th Scientific Committee Workshop

Valparaiso, Chile
28 - 30 May 2018

SCW6-Doc02

1st March 2018 Web Meeting

Meeting started at 12:00 (UTC)

Participating:

Chair – Jim Ianelli;

Vice-Chair – Niels Hintzen;

Chile – Karin Mundnich, Ignacio Paya, Juan Carlos Quiroz, Mauricio Galvez, Mario Acevedo, Cristian Quezada, Aquiles Sepúlveda;

China – Gang Li, Luoliang Xu;

Korea - Lee Jong Hee, Seok-Gwan Choi;

Peru – Jorge Csirke, IMARPE (various);

Invited Expert(s) – Arni Magnusson, Carmen Fernandez, Lee Qi;

Secretariat – John Cheva, Susana Delgado.

The Chair opened the web meeting by informing that the Secretariat had distributed the official announcement for the workshop. Registrations for the workshop were open on the SPRFMO website. He thanked Chile for organizing the workshop. The group was informed of the inclusion of a new expert (Arni Magnusson) who will also be invited to the Assessment workshop alongside Carmen Fernandez and Lee Qi.

Workplan

The workplan that was developed during the 2018 January Commission meeting in Lima, Peru was shared. The workshop announcement showed that initial plan was for the Jack mackerel Assessment to:

- a) Update commercial tuning indices according to appropriate standardization protocol
- b) Review available data on life history parameters
- c) Review spatio-temporal aspects of fisheries
- d) Investigate the impact of alternative growth parameters on model fit and stock status
- e) Explore alternative assessment methodologies and usability for advisory purposes
- f) Evaluate data-source-weighting, natural mortality
- g) Review the rebuilding plan, projection methods and
- h) Update reference points

The overarching **Objective** of the Jack mackerel stock assessment workshop will be to prepare the assessment data and model specifications to facilitate developing scientific advice for the forthcoming SC6 meeting to be held in September 2018.

As preparation for working on the list above the Chair initiated a data coordination discussion asking about an intersessional Jack Mackerel stock assessments, contributions or research. What new data was to be used in the assessment including catch, CPUE, and length frequencies and finally any model developments.

The Chair reminded participants that one task would be to go back to the previous full assessment and revisit the list of things that were tasked as “future work”. This is needed ensure that as many tasks/issues get covered as possible. Developing alternative models, reviewing the previous base cases and multi-stock model would also be covered.

The Chair informed that activities that were either going on or planned should be posted on GitHub site and everyone would have equal access with associated detailed readme files.

Ignacio wanted a clarification on 'Review industry data availability and usability' in the Jack Mackerel workplan. The question was related to what kind of data would be required when most of the data was from the industry. Jim and Niels answered that the data that they were expecting was related to acoustics and self-sampling data collected by the industry.

Prioritisation

Previous discussions had suggested that the activities to be prioritized at the workshop would certainly include:

- Re-familiarise with the current software application;
- The type of diagnostics that are missing;
- Weight-at-age (Highly variable both historically and going forward);
- Growth alternatives and Interaction with natural mortality

The Chair enquired from the Chilean members whether there were any efforts that were underway to look further into the weight-at-age issues. Ignacio asked for a clarification the 'Topics for prioritization' which was about 'Catch estimation methods'. He wanted to know whether the estimation method is related to fish mortality or mortality source. The Chair clarified that it was just to revisit the process of where the catch estimation is coming from. As there was less information available historically on the amount of catch especially by fleet, this might be an effective way to document how the methods would have changed over time.

Chile informed that they could provide data for catch numbers starting from 1996 due to time constraints and the structure of their current database. The Chair acknowledged that this was the type of discussions he would want at the workshop because the earlier period catch estimation techniques or approaches were either unavailable or less reliable. These changes could then be appropriately accounted for in the assessment.

Mauricio suggested that the bullet point on 'Consideration of alternative models' to be more specific. He wanted to know how deep would be the discussion on alternative models. He also wanted to know whether they would be using the model with the current data or there would be general discussion on the utility of other models. The Chair clarified that as the assessment methods were improving in different ways, the assessment has improved quite a bit over the years. They could (and should) look at others, not as a replacement, but more to check current model results. Niels added that it would be good as a diagnostic tool to look at the way that different models interpret data and what can be learnt. Carmen has previously created stock synthesis runs and thought looking at those in the workshop would be useful. She agreed that it would be useful to look at different models and understand how they behaved with the same set of data as this would give more insight into the whether the assumptions that were made were reasonable or not. Arni seconded what Niels and Carmen said and added that it was a useful exercise to compare models, but takes time. It can help identify the major issues and sometimes uncover mistakes. Niels confirmed that he would have a working document covering SAM assessments run with a decent configuration that highlights the major differences along with some suggestions for improvements for the JJM model. Chile and Peru were happy to work on stock synthesis exercises on the github repository.

Mauricio wanted to know the aim and purpose for discussing the spatial stock definitions. The Chair replied that it was a standard sensitivity comparison. At this stage the Commission has not adopted either hypothesis and so both should be carried forward at this time. Jorge confirmed that Peru felt the SC should continue to consider both the one and two stock options for the South Pacific. The Chair also confirmed that the current assessment model supports both hypotheses. It was agreed that the 'Spatial stock definition' should be removed from the workshop discussion and assigned to the SC meeting as no-one was planning new work in time for the assessment workshop.

Niels asked about Chile's recent tests using the alternative growth (constructing alternative catch-at-age matrices). Niels wanted to know to what extent Chile would be able to provide the new data for the benchmark. Mauricio responded by saying that could provide the catch-at-age number for both fisheries from 1996 to date, but not with a

different approach in terms of growth. This update could only include the catch number. Aquiles added that Chile had a project on validation of growth which would take more time and may be able to provide the results next year (2019). He said that there was not enough time (by May) to provide alternative growth and alternative catch-at-age matrices.

The Chair noted that it sounded like alternative growth indices would be difficult to collate in time for this workshop and so wondered whether other sensitivities were possible. Jorge expressed strong concerns about continuing to use the previous growth parameters without review. He acknowledged the amount of work involved in reviewing the growth-at-age, but added estimating the impact of growth alternatives on the assessment should be a high priority for the May workshop. The Chair noted that some of the alternative assessment models could handle varying growth assumptions in different ways. Niels understood that reviewing the whole catch-at-age matrix was not achievable for the workshop, but agreed that as a minimum we should be running a sensitivity on age conversion to the existing data.

Chile requested a final discussion about the harvest control rule and China agreed that HCRs should be considered. The Chair replied that reviewing the HCR may be more than what could be covered at the workshop, but should certainly be covered during the full SC. Chile then asked about projections/rebuilding targets and what was envisioned. The Chair reminded people that the current precautionary approach assumes recent average recruitment (relatively low) versus reference points using the full-time series (relatively high) and some discussion during the workshop was necessary (with possible revision of reference points estimation).

The Chair thanked people for their comments and would modify the topics for prioritization and include the full assessment recommendations into an agenda for review by the full SC. He also reminded the main purpose of this call was to make sure that the Members were keeping this workshop in the forefront of priorities of their activities and preparations were being made for workshop presentations. He also asked Members to keep him apprised of work that would be presented.

It was agreed the deadline for submission of papers would be a week prior to the start of the meeting at the latest. The Chair also agreed to give access to the GitHub site to the outside experts.