

**Preliminary reconditioning of the SBT OM with updated data in 2014.**

Abstract

This paper provides information on preliminary re-conditioning of the SBT operating models (OMs), for consideration at OMMP5 and further refinement prior to a full stock assessment at the extended scientific committee meeting (Sept, 2014). This will be the first stock assessment since 2011, and since the SBT management procedure was implemented and the close-kin project completed. The SBT OMs have been updated with new data provided as part of the 2014 CCSBT data exchange. At technical and scientific committee meetings since the last stock assessment in 2011, the operating models specification, range of values in the reference grid, priors and model sample weights, and new data sources have been refined and their implementation into the SBT OMs agreed. A major change has been the integration of the close-kin data into the operating models. Examination of the diagnostics indicate the updated models fit the data well. The recruitment time-series show high recruitments in the recent years. Consistent with results from OMMP4, the preliminary reconditioning of the SBT OM indicates that stock status has improved since the last assessment in 2011. The projections code has also been updated, and results of preliminary catch and biomass projections using the reference set and the CCSBT MP indicate that the rebuilding objectives for the MP will be met.

**Preliminary consideration of methods for sensitivity analyses of alternative catch series in stock assessments**

Abstract

The Extended Commission at its meeting in October, 2013, requested that the ESC evaluate the impacts of unaccounted mortalities on the stock assessment and consider the results in the context of the annual review of exceptional circumstances associated with the operation of the SBT management procedure. This paper discusses technical options for incorporating scenarios for unaccounted mortalities into the conditioning models, and estimating the impacts on stock status. Issues that should be considered in the ESC review of the potential for exceptional circumstances are also discussed. Additional scenarios for unaccounted mortalities for inclusion in the sensitivity analyses for the 2014 assessment of stock status are yet to be defined, but this method is flexible and can accommodate additional scenarios. Approaches to this issue will be discussed further at the OMMP5 meeting, and the 2014 ESC and various scenarios will likely be defined in papers to the ESC.

**Preliminary consideration of methods for sensitivity analyses of alternative catch series in projections**

Abstract

The Extended Commission in 2013 requested that the Scientific Committee provide preliminary advice on the impact of unaccounted mortalities on the SBT stock assessment projections and possible future Management Procedure (MP) recommendations. At the 2013 ESC new sensitivity tests for the purposes of the 2014 stock assessment were defined (Table 1, Attachment 8, ESC18), which had implications for the projections code. We have implemented code changes to accommodate these sensitivity tests. In terms of the Extended Commission's request, the code for potential unaccounted mortality scenarios has been tested and documented here. Using this method, we have examined the impact of current unaccounted mortality scenarios on the probability of rebuilding to 20%  $SSB_0$  by 2035, catch (which includes any unaccounted mortalities), TAC and biomass measures. This method allows further exploration of any additional unaccounted mortality scenarios, as may be agreed by the Commission and ESC. Results are provided for a preliminary evaluation of the impacts of the "SV\_OverC" scenario as defined in Table 1 in Attachment 8, ESC18.