Development of a revised OMP for South Coast Rock Lobster

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Possible base case OM changes

- Uncertainty in the initiation of projections – currently MPLE estimates of current (or somewhat backdated) numbers-at-age are used; how might taking estimation uncertainty into account best be achieved?
- Selectivity modelling – are there better formulations than those utilized at present which might be considered for OM development?

Possible Robustness tests

- A major uncertainty which remains relates to the conflicting signals given by the CPUE and CAL data. Currently, as recommended by a previous IWS panel, these two data types receive equal weighting in the log-likelihood. A set of robustness tests that explores alternate weightings could be explored.
- Effort saturation – is this something which needs to be reconsidered?
- Different assumptions for *M* and *M*-at-age, e.g. increase of *M* at larger ages to offset selectivity doming which is substantial.
- Alternative values for σ_R– currently 0.8 [recruitment residual variability].
- Alternative values for σ_λ– currently 1.0 [time variation in recruitment distributions].
- Alternative values forσ_{sel}– currently 7.5 [time variation in selectivity distributions].

Possible OMP changes

- Exceptional Circumstances rule development - start increasing the maximum TAC decrease constraint (currently 5%) if CPUE falls below a critical threshold level.
- Summary statistics – are there any statistics used in other fisheries that might be useful?
- More rapid reaction in OMP TAC rule - should OMPs that react more rapidly to the most recent data be explored further?
- Use of a recruitment index in the OMP – based, for example, on the proportion of younger fish from the catch-at-length data collection.