Key Questions for the Panel to address

Hake Assessment:

1. Advise on the reliability of the medium term projections presented for catches, resource depletion, CPUE and fishing effort in the context of long-term planning for the industry.

2. Comment on the suggestion that OMP revision be brought one year forward to allow for a possible TAC decrease in excess of 5% in 2018 in the interests of better catch and resource performance over the next 10 years.

Hake Modelling Predation:

1. Review the two hake predation models presented, with a particular view towards identifying why (or suggesting approaches to determine why) they provide appreciably different estimates of current depletion (relative to pristine) for the *M. paradoxus* population.

2. Provide prioritised recommendations, should you wish, for future research.

Hake GeoPop:

1. Provide brief comments on the papers presented applying the GeoPop approach to hake.

Sardine:

Stock Structure

1. On the basis of the current preferred hypothesis (MARAM/IWS/DEC16/Sardine/P7), advise on how alternative hypotheses about the contribution of south coast spawning biomass to west coast recruitment are best constructed and weighted, taking account of :
   a) approaches involving fits to stock recruitment relationships; and
   b) ouput from the hyrodynamic individual-based model (IBM), and how the associated uncertainty is best quantified?

2. Advise whether other stock structure hypotheses need to be considered, taking account of the implications of the initial genetics results received very recently.

3. Comment broadly on the implications of these various hypotheses concerning the need or otherwise for spatial management (i.e. for a directed sardine TAC split by area).

4. Provide prioritised recommendations, should you wish, for future research.

Review of Proposed Projection Framework for OMP testing and Related matters

1. Advise on which of the various future movement hypotheses that have been put forward (e.g. MoveR, Move B) need be considered further, and on their relative plausibilities/weighting.

2. Comment on how future recruitment is best generated for projections, taking into consideration:
   a) which stock recruitment relationship(s) to use;

    b) whether to fit them internally or externally to the assessment, and in the latter case how best to proceed in a Bayesian (MCMC) context; and

    c) how best to generate residuals about that relationship.

3. Provide comments on other aspects of the specifications proposed for OMP testing.

4. Advise on an appropriate risk specification, noting the comparison available of the productivity of South African sardine relative to other sardine stocks worldwide, and advising both how this might best be taken into account and how that analysis might be improved.

5. Provide prioritised recommendations, should you wish, for future research.

Penguins Island Closure:

1. Do the analyses reported in direct response to recommendation A.2 from last year constitute an acceptable implementation of that recommendation for each of the response variables considered?

2. Given the results from those analyses, advise to what extent the points you raised in recommendation A.3 might now be addressed; this is to assist the pertinent DAFF scientific working group which is required to make a recommendation on continuation of or adjustment to the current island closure programme at a meeting to be held on 7 December.

3. Comment on the relative merits of fisheries assessment analyses (including this penguin case) being based on aggregated data in contrast to individual data utilising mixed effects models in a one-step process, as used in the paper by Sherley (and any associated computation results) and advise whether this might necessitate revision of the conclusions otherwise to be drawn under questions 1) and 2) above.

4. Advise on the extent to which the draft paper by Sherley addresses recommendation A.5.

5. Provide prioritised recommendations, should you wish, for future research.

Penguins Pressure Model:

1. The pressure model claims results that inform on the impact of pelagic fishing close to Robben Island on penguins. Advise on the reliability of these conclusions, and those from the Robinson et al. model, in the context of informing the recommendation to be made on 7 December that is referenced above.

2. To the extent that time may permit the issues concerned to be addressed, advise on the reliability of the pressure model to inform on other penguin-fishery management related issues, taking account of queries concerning this model that have been tabled and its authors' responses.

3. Provide prioritised recommendations, should you wish, for future research.