**Key Issues to be discussed at International Fisheries Stock Assessment Review Workshop, 28 Nov – 2 Dec, 2011**

References given in parenthesis relate to workshop document numbers following the initial MARAM IWS/DEC11/

**Hake**

Note that a broad underlying objective is the development of a joint Namibian-South African hake assessment through Work Package 1 of the ECOFISH programme (a joint Benguela Current Commission – European Union initiative).

Note that the issue of the data to be used for the assessments will be discussed during (and in parallel with) the workshop, but Panel input on technical issues associated with the data is unlikely to be sought.

**Species split**

* + - * Review of the approaches currently employed in Namibia and SA (*H/SPLIT/P1; BG1,2*)
      * Suggestions for the approach(es?) to be adopted for a joint assessment

**Stock structure**

* + Review of the progress on genetic analyses and suggestions for future work (*H/MODEL/P2*)
  + Review of the results from the Nansen transboundary surveys and suggestions for future work
  + Initial suggestions for alternative stock structure hypotheses to be considered

**Models**

* + Review of the stock assessment approaches currently employed in Namibia and SA, as well as the Danish SAM (*H/MODEL/P1; BG1,2*)
  + Suggestions for the approach(es?) to be adopted for a joint assessment, to cover: (*H/MODEL/P3; BG3*)

1. Spatial and temporal stratification
2. Explicit modelling of movement
3. Disaggregation by species and (?) by sex
4. Selectivity modelling including length *vs* age basis
5. Fitting criteria

* Suggestions for hake cannibalism and inter-species predation (*H/MODEL/P4; BG3*)

1. Spatial and temporal stratification
2. Inclusion of additional species?
3. Feeding functional relationships
4. Daily ration estimation
5. Data and fitting

**Pelagic Fishery**

**Pelagic OMP** (*P/OMP/BG1*)

* Review of updated assessments (*P/OMP/P2,3,8,9,11; BG2*)

1. Estimation of recruitment variability
2. Acceptability of fits to age/length data
3. Temporal variation in *M*
4. Stock-recruitment relationship
5. Model(s) for multiple sardine stocks
6. Key uncertainties requiring robustness tests

* Suggestions for projection specifications (*P/OMP/P6*)

1. Modeling future recruitment, including sequences of years of poor recruitment
2. Taking account of implementation uncertainty (the undercatch of anchovy)

* Suggestions for performance statistics (*P/OMP/P6*)

1. Defining risk criteria, including in the case of a multiple sardine stock operating model
2. Is there merit in developing a decision-analysis method for selecting amongst candidate OMPs (*P/OMP/BG3,4*)

* Suggestions regarding management options and choices amongst them (*P/OMP/P5,12*)

1. How to assign relative plausibility to alternative hypotheses for constant vs time-varying M and for alternative stock structures (*P/OMP/P7*)
2. Concerns about the current minimum TAC prescription with *F* increasing as biomass falls; does the Exceptional Circumstances fall back approach provide adequate safeguards, or does the TAC control rule require revision?

* Spatial management
  1. Does the available evidence necessitate spatial management and at what scale? (*P/OMP/P4,12*)
  2. How might area-specific directed sardine TACs best be formulated (e.g. pro-rata to the proportion of survey biomass in the area)? (*P/OMP/P1*)

**Penguins**

* Review of updated penguin model (*P/PENG/P1*)

1. Is the estimation satisfactory, including of the variability in the penguin survival rate-sardine biomass relationship?
2. Are further robustness tests required, including consideration of different hypotheses linking demographic parameters to food availability?

* Review of Penguin Pressure model (*P/PENG/P2,3*)
  1. What further work would be needed to be able to use this model to provide management advice?
* Linking the penguin model to the pelagic OMP (*P/PENG/P4*)
  + 1. What are appropriate performance statistics?
    2. How best to balance “future benefit to penguins” vs “future decreased catches”?

**Horse mackerel** (*P/HM/BG1*)

* + Review of the horse mackerel assessment (*P/HM/P1*)
  + Review of the suggestions for adaptive management procedure options and the testing thereof (*P/HM/P2*)

**MSC LTLF**

* Summary presentations of Smith *et al*. paper and MSC requirements arising therefrom (*P/LTL/P1,2,2add; BG3*)
* Summary outline of ecosystem model approaches (EwE, OSMOSE, Atlantis) (*P/LTL/BG1,2,4,5,6*)
* Scientific issues raised by PSWG (*P/LTL/P3,5*)

1. Norms for acceptability of models for management purposes- single species *vs* ecosystem
2. Modelling recruitment fluctuations of forage fish in ecosystem models (*P/LTL/4; BG5,6*)
3. Criteria for acceptable levels of impact on predator populations
4. Operational considerations related to estimation and comparability

* Process issues raised by PSWG (*P/LTL/5*)
* Suggestions for key focus areas for future research and evaluation