**Documents for MARAM/DAFF International Fisheries Stock Assessment Review Workshop, 2011**

**General**

MARAM IWS/DEC11/ALL/1: List of documents

MARAM IWS/DEC11/ALL/2: Schedule

MARAM IWS/DEC11/ALL/3: List of key issues for discussion

**Hake - Species split**

MARAM IWS/DEC11/H/SPLIT/P1: E. Johnsen and J. Kathena. A robust method to separate Namibian commercial hake catches by species – a necessary step towards a biologically realistic hake stock assessment.

MARAM IWS/DEC11/H/SPLIT/BG1: J.D. Gaylard and M.O. Bergh. A species splitting mechanism for application to the commercial hake catch data 1978 to 2003. OLRAC 2004.

MARAM IWS/DEC11/H/SPLIT/BG2: J.D. Gaylard and M.O. Bergh. Update of the hake species split models in the light of more recent survey data and a revision of the large/medium/small size classification.

**Hake - Modelling**

MARAM IWS/DEC11/H/MODEL/P1: A. Nielsen. State-space fish stock assessment model as alternative to (semi-) deterministic VPA approaches and full parametric stochastic models.

MARAM IWS/DEC11/H/MODEL/P2: C. Matthee and S. von der Heyden. Report on Hake Genetics.

MARAM IWS/DEC11/H/MODEL/P3: R. Rademeyer. An initial attempt at a spatially structured stock assessment for the South African hake resource including explicit movement.

MARAM IWS/DEC11/H/MODEL/P4: A. Müller and D.S. Butterworth. A brief summary of past analyses taking hake cannibalism and inter-species predation into account in assessments.

MARAM IWS/DEC11/H/MODEL/BG1: R. Rademeyer. Current methodology for assessing the South African hake resource: A gender-disaggregated assessment fitting directly to age-length keys.

MARAM IWS/DEC11/H/MODEL/BG2: C. Kirchner, P. Kainge and J. Kathena. Evaluation of the status of the Namibian hake resource (Merluccius spp.) using statistical catch-at-age analysis.

MARAM IWS/DEC11/H/MODEL/BG3: Benguela Current Large Marine Ecosystem Programme. 2006. Agreed report of the joint hake research planning workshop (Namibia and South Africa).

**Pelagic - OMP**

MARAM IWS/DEC11/P/OMP/P1: C.L. de Moor and D.S. Butterworth. Spatial Management of Sardine: Initial Suggestions for TAC split rules.

MARAM IWS/DEC11/P/OMP/P2: C.L. de Moor and D.S. Butterworth. Assessment of the South African anchovy resource using data from 1984 – 2010: results at the posterior mode.

MARAM IWS/DEC11/P/OMP/P3: C.L. de Moor and D.S. Butterworth. Assessment of the South African anchovy resource using data from 1984 – 2010: posterior distributions for the two base case hypotheses.

MARAM IWS/DEC11/P/OMP/P4: C. Moseley and R. Wanless An ecological apporach to spatial management.

MARAM IWS/DEC11/P/OMP/P5: C.L. de Moor, D.S. Butterworth and J. Coetzee. List of alternatives to be tested during the development of OMP-13.

MARAM IWS/DEC11/P/OMP/P6: C.L. de Moor and D.S. Butterworth. OMP-13 Development: Performance statistics and key specifications for projections.

MARAM IWS/DEC11/P/OMP/P7: C.D. van der Lingen. The biological basis for hypothesizing multiple stocks in South African sardine *Sardinops sagax*.

MARAM IWS/DEC11/P/OMP/P8: C.L. de Moor and D.S. Butterworth. Assessment of the South African sardine resource using data from 1984-2010: results at the posterior mode for a single stock hypothesis.

MARAM IWS/DEC11/P/OMP/P9: C.L. de Moor and D.S. Butterworth. Assessment of the South African sardine resource using data from 1984-2010: results at the posterior mode for a two stock hypothesis.

MARAM IWS/DEC11/P/OMP/P9: C.L. de Moor and D.S. Butterworth. Assessment of the South African sardine resource using data from 1984-2010: results at the posterior mode for a two stock hypothesis.

MARAM IWS/DEC11/P/OMP/P10: J. Coetzee, C. Van der Lingen and A. Bali. Catches of anchovy and sardine relative to their availability.

MARAM IWS/DEC11/P/OMP/P11: C. de Moor and D.S. Butterworth. Assessment of the South African sardine resource using data from 1984 to 2010: posterior distributions for one base case hypothesis

MARAM IWS/DEC11/P/OMP/BG1: C.L. de Moor, D.S. Butterworth and J.A.A. De Oliveira. Is the management procedure approach equipped to handle short-lived pelagic species with their boom and bust dynamics? The case of the South African fishery for sardine and anchovy.

MARAM IWS/DEC11/P/OMP/BG2: C.L. de Moor, J. Coetzee, D. Durholtz, D. Merkle and J.J. van der Westhuizen. A final record of the generation of data used in the 2011 sardine and anchovy assessments.

MARAM IWS/DEC11/P/OMP/BG3: C.L. Moloney and S.J. Johnston. 2002. Using decision analysis to evaluate candidate OMPs for the South African west coast rock lobster fishery. *South African Journal of Science*, 98: 461-464.

MARAM IWS/DEC11/P/OMP/BG4: D.C.M. Miller and P.A. Shelton. 2010. “Satisficing” and trade-offs: evaluating rebuilding strategies for Greenland halibut off the east coast of Canada. *ICES Journal of Marine science*, 67(9): 1896-1902.

**Pelagic - Penguin**

MARAM IWS/DEC11/P/PENG/P1: W. Robinson and D.S. Butterworth. Full description of the Robben Island penguin–fish interaction model.

MARAM IWS/DEC11/P/PENG/P2: Penguin Pressure Model Task Group of the Ecosystem Approach to Fisheries Scientific Working Group. 2011. The Penguin Pressure model.

MARAM IWS/DEC11/P/PENG/P3: DAFF Small Pelagics Scientific Working Group. 2011. Comments on the Penguin Pressure model.

MARAM IWS/DEC11/P/PENG/P4: W. Robinson and D.S. Butterworth. Illustrative projections of Robben Island penguin numbers.

**Pelagic – Horse Mackerel**

MARAM IWS/DEC11/P/HM/P1: L.B. Furman and D.S. Butterworth. An assessment of the horse mackerel resource including projections and an evaluation of the reliability of a potential index of juvenile abundance.

MARAM IWS/DEC11/P/HM/P2**:** L.B. Furman and D.S. Butterworth. Suggestions for simulation testing approach of adaptive management procedures for horse mackerel.

MARAM IWS/DEC11/P/HM/BG1: D.S. Butterworth. The Essence of the Management Difficulties for Horse Mackerel.

**Pelagic - MSC LTL Fisheries**

MARAM IWS/DEC11/P/LTL/P1: MSC Policy Summary - Low trophic level species

MARAM IWS/DEC11/P/LTL/P2: A.D.M. Smith, C.J. Brown, C. M. Bulman, E.A. Fulton, P. Johnson, I.C. Kaplan, H. Lozano-Montes, S. Mackinson, M. Marzloff, L.J. Shannon, Y-J. Shin, J. Tam. 2011. Impacts of fishing low–trophic level species on marine ecosystems. *Science*, 333(6046): 1147-1150.

MARAM IWS/DEC11/P/LTL/P2add: Supporting online material for: Impacts of fishing low–trophic level species on marine ecosystems.

MARAM IWS/DEC11/P/LTL/P3: MSC response to comments from Janet Coetzee, Chair, Small Pelagics Working Group, Republic of South Africa.

MARAM IWS/DEC11/P/LTL/P4: D.S Butterworth and A. Müller. Is it important to take account of fluctuations in forage fish recruitment in ecosystem models?

MARAM IWS/DEC11/P/LTL/P5: D.S Butterworth. Summary of Reservations regarding New MSC Criteria for Low Trophic Level Fisheries

MARAM IWS/DEC11/P/LTL/BG1: Atlantis Ecosim OSMOSE slide.

MARAM IWS/DEC11/P/LTL/BG2: É.E. Plagányi. Extracts from Plagányi (2007): "Models for an ecosystem approach to fisheries", summarising EwE, Atlantis and OSMOSE Ecosystem models.

MARAM IWS/DEC11/P/LTL/BG3: Marine Stewardship Council - Technical Advisory Board - Tab Directive Series: Assessment of Low Trophic Level (LTL) Fisheries.

MARAM IWS/DEC11/P/LTL/BG4: M.D. Smith and E.A. Fulton. The ABACuS Model: Atlantis in the Benguela and Agulhas current systems.

MARAM IWS/DEC11/P/LTL/BG5: L.J. Shannon, S. Neira and M. Taylor. 2008. Comparing internal and external drivers in the southern Benguela and the southern and northern Humboldt upwelling ecosystems. *African Journal of Marine Science*, 30:1, 63-84.

MARAM IWS/DEC11/P/LTL/BG6: Y-J. Shin, L.J. Shannon and P.M. Cury. 2010. Simulations of fishing effects on the southern Benguela fish community using an individual-based model: learning from a comparison with ECOSIM. *African Journal of Marine Science*, 26:1, 95-114.