Documents for the MARAM/DFFE International Fisheries Stock Assessment Review Workshop, 2024

Note: documents <mark>highlighted in yellow</mark> are still to come; they are still in preparation or need revision

General

General 1: Announcement. MARAM/IWS/2024/General/1. 1 pp.

General 2: Schedule. MARAM/IWS/2024/General/2. 1pp.

General 3: Virtual attendance. MARAM/IWS/2024/General/3. 1pp.

General 4: Document list. MARAM/IWS/2024/General/4. 5pp - **This document**

General 5: Presentation of the Panel Report. MARAM/IWS/2024/General/5. 29 slides.

General 6: IWS 2024 Final Panel Report. MARAM/IWS/2024/General/6. 12 pp.

Sardine

Primary papers

Sardine/P1: Anon. 2024. List of the key focus questions for the panel regarding sardine, together with brief summaries of the documents provided. MARAM/IWS/2024/Sardine/P1. 5pp.

Sardine/P2: de Moor, C.L. 2024. The assessment model for the revised sardine stock structure hypothesis. MARAM/IWS/2024/Sardine/P2. 18 pp.

Sardine/P3: de Moor, C.L. 2024. Results from the stock assessment model of the revised South African sardine stock structure hypothesis. MARAM/IWS/2024/Sardine/P3rev (also as FISHERIES/2024/NOV/SWG-PEL/57). 76 pp.

Sardine/P4: de Moor, C.L. 2024. A proposal to extend the two-area sardine model to three areas. MARAM/IWS/2024/Sardine/P4 (also as FISHERIES/2024/NOV/SWG-PEL/59). 3 pp.

Sardine/P5: Teske. P. 2024. An example of how mixing proportions can potentially be determined based on genomic data from Teske et al. (2021). MARAM/IWS/2024/Sardine/P5. 3 pp.

Sardine/P6: de Moor, C.L. 2024. Sardine stock-recruitment relationships and management units of conservation. MARAM/IWS/2024/Sardine/P6 (also as FISHERIES/2024/NOV/SWG-PEL/58). 8 pp.

Sardine/P7: Teske P., Emami-Khoyi, A. and Ockhuis, S. 2024. Reanalysis of sardine genomic data based on 2023 panel recommendations. MARAM/IWS/2024/Sardine/P7. 9 pp.

Sardine/P8: Teske. P. 2024. Description of planned whole-genomic sequencing. MARAM/IWS/2024/Sardine/P8. 5 pp.

<mark>**Sardine/P9**: de Moor, C.L. 2024. Initial projections with the sardine population dynamics model and no future catch. MARAM/IWS/2024/Sardine/P9.</mark>

Sardine/P10: de Moor, C.L. 2024. Further results from testing the South African sardine stock assessment model. MARAM/IWS/2024/Sardine/P10. 18 pp.

Background Documents

Sardine/BG1: de Moor, C.L. and Coetzee, J.C. 2024. A summary of the sardine fishery. MARAM/IWS/2024/Sardine/BG1. 20 pp.

Sardine/BG2: de Moor, C.L. and Teske, P. 2024. Progress on recommendations from the 2023 review panel report. MARAM/IWS/2024/Sardine/BG2. 4 pp.

Sardine/BG3: Teske, P.R., Emami-Khoyi, A., Golla, T.R., Sandoval-Castillo, J., Lamont, T., Chiazzari, B., McQuaid, C.D., Beheregaray, L.B. and van der Lingen, C.D. 2021. The sardine run in southeastern Africa is a mass migration into an ecological trap. *Science Advances*, 7. MARAM/IWS/2024/Sardine/BG3 (also as MARAM/IWS/2022/Sardine/P2). 9 pp.

Sardine/BG4: van der Lingen, C.D., de Moor, C.L. and Coetzee, J.C. 2023. Available data for determining the occurrence and distribution of Cool Temperate and Warm Temperate Sardine components by life history stage. MARAM/IWS/2024/Sardine/BG4 (also as MARAM/IWS/2023/Sardine/P2). 31 pp.

Sardine/BG5: de Moor, C.L., van der Lingen, C.D. and Teske, P.R. 2023. A revised hypothesis for South African sardine stock structure. MARAM/IWS/2024/Sardine/BG5 (also as MARAM/IWS/2023/Sardine/P3). 8 pp.

Sardine/BG6: de Moor, C.L., Merkle, D., Coetzee, J. and van der Lingen, C.D. 2024. The data used in the 2024 sardine assessment. MARAM/IWS/2024/Sardine/BG6 (also as FISHERIES/2024/OCT/SWG-PEL/40). 31 pp.

Sardine/BG7: Coetzee, J.C. 2024. The biomass-weighted proportion of South Coast-spawned sardine eggs that are simulated to be transported to the West Coast nursery area. MARAM/IWS/2024/Sardine/BG7 (also as FISHERIES/2024/NOV/SWG-PEL/54). 8 pp.

Slides and presentations

Sardine/Pres1: de Moor, C.L. and Coetzee, J.C. 2024. An Introduction to the South African Sardine Resource and Fishery. MARAM/IWS/2024/Sardine/Pres1. 25 slides.

Sardine/Pres2: Teske, P.R., Emami-Khoyi, A. and Ockhuis, S. 2024. Genomic research on South Africa's sardine stocks. MARAM/IWS/2024/Sardine/Pres2. 17 slides.

Sardine/Pres3: de Moor, C.L. 2024. Sardine Stock Assessment Model. MARAM/IWS/2024/Sardine/Pres3. 47 slides.

Sardine/Pres4: Teske, P.R., Emami-Khoyi, A. and Ockhuis, S. 2024. Genomic research on South Africa's sardine stocks. MARAM/IWS/2024/Sardine/Pres4. 9 slides.

Working papers

Sardine/WP1: de Moor, C.L. 2024. Comparing harvest proportions as estimated over time by different sardine assessment models. MARAM/IWS/2024/Sardine/WP1. 6 pp

Squid

Primary papers

Squid/P1: Brandão, A. and Butterworth, D.S. 2024. List of the key focus question(s) for the panel regarding squid, together with brief summaries of the documents provided. MARAM/IWS/2024/Squid/P1. 2 pp. **DRAFT** version.

Squid/P2: Brandão, A. and Butterworth, D.S. 2024. Excerpts from the 2023 IWS panel report, together with responses pertaining to the squid resource. MARAM/IWS/2024/Squid/P2. 2 pp.

Squid/P3: Brandão, A. and Butterworth, D.S. 2024. Available pack data for the chokka squid (*Loligo reynaudii)* resource of South Africa. MARAM/IWS/2024/Squid/P3. 9 pp.

Squid/P4: Brandão, A. and Butterworth, D.S. 2024. Adaptations to the simulation procedure to generate pack data for the chokka squid (*Loligo reynaudii*) resource of South Africa. MARAM/IWS/2024/Squid/P4. 29 pp.

Squid/P5: Brandão, A. and Butterworth, D.S. 2024. Allowing for time-variant fishing proportions in the simulation model. MARAM/IWS/2024/Squid/P5. 25 pp.

Squid/P6: Brandão, A. and Butterworth, D.S. 2024. Initial adaptation of the simulation model to an assessment model for the chokka squid resource of South Africa. MARAM/IWS/2024/Squid/P6. 15 pp.

Background documents

Squid/BG1: Glazer, J.P. 2024. Updated assessment of the squid resource, *Loligo reynaudii*. MARAM/IWS/2024/Squid/BG1 (also as FISHERIES/2019/MAR/SWG-SQ/06). 19 pp.

Slides and presentations

Squid/Pres1: Mwicigi, J., Glazer, J.P., Fairweather, T.P., Louw, G.G. and Durholtz, M.D. 2024. Background information to the South African Squid Resource *Loligo Reynaudi*. MARAM/IWS/2024/Squid/Pres1. 9 slides.

Squid/Pres2: Brandao, A. 2024. Towards an assessment model for squid. MARAM/IWS/2024/Squid/Pres2. 9 slides.

Working papers

Squid/WP1: Brandao, A. 2024. Various outputs requested by the panel. MARAM/IWS/2024/Squid/WP1. 19 pp.

Squid/WP2: Brandão, A. 2023. Further results when generating pack data for squid. MARAM/IWS/2024/SQUID/WP2 (also as MARAM/IWS/2023/SQUID/WP3). 4 pp.

Squid/WP3: Durholtz, D. 2024. Chokka squid: monthly nominal CPUE (kg.person-days-1) by pack size category. MARAM/IWS/2024/Squid/WP3. 4pp.

Squid/WP4: Durholtz, D. 2024. Chokka squid: Survey abundance estimates (tons) by size category. MARAM/IWS/2024/Squid/WP4. 1pp.

Squid/WP5: Mwicigi, J. 2024. Towards developing a new squid stock assessment model: Squid Sex Aggregated Length Frequency Sampling Pilot Project. MARAM/IWS/2024/Squid/WP5. 4pp.

Squid/WP6: Mwicigi, J. 2024. Squid *Loligo reynaudi* Aggregated Pack Level Data. MARAM/IWS/2024/Squid/WP6. 6pp.

Squid/WP7: Durholtz, D. 2024. 2024 update of the squid jig CPUE indices. MARAM/IWS/2024/Squid/WP7. 2pp.

Horse Mackerel

Primary papers

HorseM/P1: Johnston, S.J. 2024. List of the key focus question(s) for the panel regarding horse mackerel, together with brief summaries of the documents provided. MARAM/IWS/2024/HorseM/P1. 2 pp.

HorseM/P2: Johnston, S.J. 2024. Horse mackerel commercial CPUE and survey series. MARAM/IWS/2024/HorseM/P2. 8 pp.

Background documents

HorseM/BG1: Johnston, S.J. and Butterworth, D.S. 2024. Updated 2024 horse mackerel assessments and projections. MARAM/IWS/2024/HorseM/BG1 (also as FISHERIES/2024/OCT/SWG_DEM/12). 30 pp.

HorseM/BG2: Singh, L. 2024. The 2024 updated horse mackerel standardized CPUE. MARAM/IWS/2024/HorseM/BG2. 2 pp

HorseM/BG3: Johnston, S.J. and Butterworth, D.S. 2020. Recommendation of a TAE for the directed midwater trawl horse mackerel fishery for 2021. MARAM/IWS/2024/HorseM/BG3 (also as FISHERIES/2020/OCT/SWG_DEM/30). 6 pp.

Slides and presentations

HorseM/Pres1: Johnston, S. 2024. The South African horse mackerel fishery: Introduction to matters to be discussed. MARAM/IWS/2024/HorseM/Pres1. 7 slides.

Working papers

HorseM/WP1: Johnston, S.J., Durholtz, D., Singh, L. and Fairweather, T. 2024. Further information relating to the Namibian Horse Mackerel fishery. MARAM/IWS/2024/HorseM/WP1. 4 pp

HorseM/WP2: Fairweather, T, Singh, L., Johnston, S.J. and Durholtz, D. 2024. Further information relating to the Desert Diamond catch and effort data for the South African Horse Mackerel fishery. MARAM/IWS/2024/HorseM/WP2. 14 pp.

HorseM/WP3: Yemane, D., Durholtz, D., Fairweather, T. and Singh, L. 2024. Standardised CPUE indices of abundance for horse mackerel off South Africa based on Desert Diamond midwater trawling. MARAM/IWS/2024/HorseM/WP3. 18 pp

HorseM/WP4: Johnston, S.J. 2024. Plots of desert diamond CPUE against demersal survey and dual rights CPUE. MARAM/IWS/2024/HorseM/WP4rev. 1 pp

HorseM/WP5: Yemane, D., Durholtz, D., Fairweather, T. and Singh, L. 2024. Standardised CPUE indices of abundance for horse mackerel off South Africa based on Desert Diamond midwater trawling. MARAM/IWS/2024/HorseM/WP5. 21 pp

HorseM/WP6: Fairweather, T. and Durholtz, D. 2024. Spatial distribution of Horse Mackerel survey density by size class and select maps of commercial data. MARAM/IWS/2024/HorseM/WP6rev. 8 pp