## PLEASE PROVIDE COMMENTS TO [annala@snap.net.nz](mailto:annala@snap.net.nz) before 12:00 on Monday 8th August 2016

**SC12** – **ECOSYSTEM AND BYCATCH MITIGATION THEME**

AGENDA ITEMS 6.1.1.1, 6.1.1.2, and 6.3 (part)

* 1. **Ecosystem effects of fishing**
     1. **Review of research and information**
        1. **SEAPODYM**

**Recommendations:**

TRACK CHANGES

**SC12 recommends that WCPFC 13 endorses the results of the review of SEAPODYM (EB-IP- 14) as follows:**

SC12 noted that SEAPODYM has the potential to be a useful complementary model to Multifan-CL for MSE work that includes spatial management. Similarly, the capacity of SEAPODYM to include alternate oceanographic states (e.g. ENSO phases and climate change projections) would allow climate proofing to be a consideration in the MSE work undertaken by WCPFC.

.SC also noted that SEAPODYM could also be used as a tag simulator to test assumptions and/or provide priors or fixed values for the inclusion of the PTTP data in Multifan-CL applications.

An annual review meeting, similar to the pre-assessment workshop held annually to guide the development of the WCPFC stock assessments, would benefit SEAPODYM applications in the WCPO

A detailed technical document which describes reviews to date, developments implemented and developments planned should be prepared to support future SEAPODYM work (including for example criteria for reference models).

WCPFC should encourage and where feasible support (through Project 62) the contined

development of diagnostics to evaluate the fit of the model to data, the validity of underlying

assumptions, and allow comparison with alternate population dynamics models.

3

WCPFC and other sub-regional organisations should consider options for industry support for research and data that would enhance SEAPODYM’s forage component.

5.

CLEAN VERSION

**SC12 recommends that WCPFC 13 endorses the results of the review of SEAPODYM (EB-IP- 14) as follows:**

1. SEAPODYM has the potential to be a useful complementary model to Multifan-CL for MSE work that includes spatial management. Similarly, the capacity of SEAPODYM to include alternate oceanographic states (e.g. ENSO phases and climate change projections) would allow climate proofing to be a consideration in the MSE work undertaken by WCPFC.
2. SEAPODYM could also be used as a tag simulator to test assumptions and/or provide priors or fixed values for the inclusion of the PTTP data in Multifan-CL applications.
3. An annual review meeting, similar to the pre-assessment workshop be held annually to guide the development of the WCPFC stock assessments, would benefit SEAPODYM applications in the WCPO
4. A detailed technical document which describes reviews to date, developments implemented and developments planned should be prepared to support future SEAPODYM work (including for example criteria for reference models).
5. WCPFC should encourage and where feasible support (through Project 62) the continued development of diagnostics to evaluate the fit of the model to data, the validity of underlying assumptions, and allow comparison with alternate population dynamics models.
6. WCPFC and other sub-regional organisations should consider options for industry support for research and data that would enhance SEAPODYM’s forage component.
   * + 1. **Ecosystem indicators**

**SC12 recommends that the Commission:**

* Note the proposed approach for the design and testing of ecosystem indicators for WCPO for use by WCPFC
* Note the importance of this work programme and its prioritisation within the SC work plan
* Provide direction on the scope of the work, timing, and the implementation
* Consider funding from the SC budget or other sources to resource the work
  1. **Seabirds (part)**

**Regarding the results of tori line research, SC12 recommends that the Commission:**

* Note the tori line options reported here, developed especially for small longline vessels, and recognise that they should be usable and suitable for vessel operators fishing in different waters to implement practical and effective tori lines to meet current required specifications.
* Consider these tori line designs, together with the information on their usability in actual fishing operations, during the review or development of any updated tori line specifications, as will be required for the review of specifications set out in CMM 2015-03.

**Regarding the results of research on seabird distributions, SC12 recommends that the Commission:**

ote that the (limit of) spatial distribution of seabird density data presented extends to areas north of 300S.

Also note that the range of most of New Zealand southern breeding and vulnerable seabirds lies south of 250S.

Note that use of effective bycatch mitigation measures across the full range of at-risk seabirds enhance conservation of those seabirds.

[Request that the TCC consider moving the 300S boundary of the seabird CMM further north and to make a recommendation to amend the boundary to WCPFC13.]