

Comments on the 'Report from the group of independent scientists requested to review the proposal from Japanese scientists for catch limits for Japanese commercial whaling'

Japan's RMP Team (JRT)

An international group of experts (Review Panel) held a workshop on 18-20 June 2019 to review the technical aspects of the work conducted by the Japan's RMP Team (JRT) on the calculation of catch limits for North Pacific sei, Bryde's and common minke whales in line with the Revised Management Procedure (RMP) adopted by the International Whaling Commission (IWC). The review included the hypotheses on stock structure used to define management areas, and the *Implementation Simulation Trials (ISTs)* developed and run to capture the uncertainties which were deemed to be most important for the stocks involved.

The JRT considers that the review workshop report produced by the Review Panel represents a fair and balanced evaluation of the catch limit calculations carried out by the JRT. The Review Panel also provided some technical recommendations that would improve the Japanese catch limit calculations and the *ISTs* in the future.

However, even though the JRT appreciates and fully respects the views and recommendations of the Review Panel, as is usual scientific practice, it would respectfully wish to point out some issues on which it has a different opinion to the Panel.

#### **Definition of *Small Area* for sei whale**

Based on the results of the genetic and mark-recapture analyses the IWC Scientific Committee had agreed that the pelagic region of the North Pacific is composed of a single stock of sei whales (IWC, 2017). This region coincides broadly with the specification of a *Small Area* in the JRT's catch limit calculation, which in turn coincides with the region covered by the sighting surveys.

The Review Panel expressed some concern about this specification of a *Small Area*. It indirectly suggested the possibility of a separate stock in the western sector of the *Small Area* when noted in the report that 'the number of genetic samples from the western part of the total area is limited, which make the conclusion of one genetic stock across the total North Pacific somewhat uncertain' (note that in practical terms the specification of this *Small Area* encompasses only the region covered by the sighting surveys, not the total North Pacific). Consequently, the Panel proposed the calculation of a catch limit based on the abundance estimate and catch history for the region west of 170°E only, as a precautionary approach to prevent the possibility of local depletion.

The JRT is not convinced by the argument above and considers that this Panel's suggestion is beyond the precautionary approach, for the following reasons. There is no scientific evidence for either a separate stock near the coast of Japan or for any biological boundary at 170°E. The agreement in the IWC SC that the pelagic region of the North Pacific is occupied by a single stock is sufficient for supporting the specification of the *Small Area* in question (i.e. without division by a specific boundary in the pelagic region, such as west of 170°E). By definition, whales from a single biological stock move freely across the whole area of their distribution on the time scale of reproduction, and this means that such movements would prevent local depletion within their distributional range. Therefore, the catch limit of 174 whales calculated originally can be taken from any part of this *Small Area* without affecting the conservation of the stock.

In the meantime, the Review Panel suggested, in order to increase the catch limit from 25 to 174, '**some combination** of the analysis (on movement) [...] and the extension of catches substantially beyond Japan's EEZ would be necessary' (emphasis added). The JRT is however of the view that the combination is not mandatory; there would be cases where either movement analysis or the expansion of whaling areas is sufficient for the increase of catch limits, depending on the quality of the analysis and on the extent of the expansion of these whaling areas.

### **Selection of management variant for common minke whale**

Based on the results of the *ISTs*, the JRT proposed management variant V0011

The details of V0011 are as follows:

- 0= Abundance for O stock as defined by option S0 (all abundance attributed to O stock)
- 0= Closure to commercial operations within 10n. miles of the coast
- 1= No temporal restriction
- 1= Catch limit allocation Opt. 1

However, the Review panel recommended the management variant V2011:

The details of V2011 are as follows:

- 2= Abundance for O stock as defined by option S2
- 0= Closure to commercial operations within 10n. miles of the coast
- 1= No temporal restriction
- 1= Catch limit allocation Opt. 1

The difference between V0011 and V2011 concerns only the abundance options (S0 or S2) used in the application of the CLA. The Review Panel recommended the adoption of the S2 option for the proportion of the O stock animals assumed in the abundance estimates for northern sub-areas 'because this yielded the highest catch amongst those option categorized as Acceptable for a MSYR (1+) value of 1%'.

The JRT is not convinced by this argument. The S2 option reduces the abundance estimates *a priori*, and in turn the calculated catch limits that then follow, in order to mitigate the impact on the J stock. This does not mean, however, that the S0 option is not precautionary. In fact, the safety of the S0 option was thoroughly examined through the *IST* process, where a variety of J stock mixture scenarios was considered.

It is true that the adoption of the S0 option by the JRT was not acceptable for some trials for MSYR (1+) value of 1%, but it was acceptable for all trials for MSYR (1+) value of 2% and MSYR (mat) value of 4%. A recent study based on bycatch per effort analysis for the J stock has demonstrated that the value of 1% for MSYR (1+) is inconsistent with the data, and that the value of MSYR(1+) should be higher than this (Kitakado and Goto, 2018). On the other hand, the MSYR (mat) value of 4%, for which all scenarios were acceptable, has been given high plausibility by the IWC SC (IWC, 2013; 2019). Therefore, the JRT considers that the assumption of an MSYR(1+) value of 1% is too conservative, and hence the results of trials using that assumption were not used in determining the acceptability of the variants. Consequently, the JRT considers that Variant 0011, which is acceptable for all trials assuming MSYR(1+)=2% and MSYR(mature)=4%, can be adopted. It would have been more helpful if the Review Panel provided its rationale why it included the assumption of MSYR(1+)=1% in determining the acceptability of the variants.

## References

- International Whaling Commission. 2013. Report of the Working Group on the *Implementation Review* for Western North Pacific Common Minke Whales. *J. Cetacean Res. Manage.* 14(suppl.): 118-136.
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- Kitakado, T. and Goto, M. 2018. A plausible range of MSYR(1+) and relative plausibility of stock structure hypotheses for the WNP common minke whales investigated by bycatch data: Updated responses to requests by the Scientific Committee for more detailed explanation for Section 4 of SC/67a/SCSP/13. Paper SC/67B/RMP02 presented to IWC Scientific Committee. May 2018 (unpublished). 8pp.