

Annex O2

Progress Report of the JARPA Review Planning Steering Group

Members: Zeh (Convenor), Brownell, Childerhouse, Fujise, Gales, Hatanaka, Pastene, Schweder

The Japanese Whale Research Programme under Special Permit in the Antarctic (JARPA) completed its last survey in late March of 2005. The IWC Scientific Committee has for some time been planning a final review of JARPA results. A JARPA Review Planning Working Group was established during the 2003 SC meeting (IWC, 2004b, p.410) but lacked a convenor. Gales and Zeh (Convenor) were added during the 2004 SC meeting, and the group was renamed the JARPA Review Planning Steering Group (IWC, 2005b, p.390). Its terms of reference were as given in IWC (2004b): 'Prepare for a review of the JARPA programme in 2005'. During the discussion in 2004 (IWC, 2005a, p.45), the SC agreed to 'undertake a full review of the JARPA programme when the complete set of results are available following the completion of the 16-year programme i.e. some time after the 2005 annual meeting of the Committee.' It also agreed that the Steering Group would submit a progress report on preparations for consideration at the 2005 SC meeting. The Steering Group worked intersessionally, primarily via e-mail correspondence, to produce this progress report.

The Steering Group agreed that this review, like the 1997 JARPA Review (IWC, 1998b, pp.95-105; IWC, 1998a), should be carried out by an Intersessional Working Group to Review Data and Results from Special Permit Research on Minke Whales in the Antarctic. This would be done during an intersessional meeting, most likely in Tokyo. The report from that meeting would be presented and discussed at the following SC meeting. The review would cover all 18 years of the JARPA programme (1987/88-2004/05).

Draft terms of reference for the review are given in Appendix 1 and a draft agenda in Appendix 2. The draft terms of reference are based on the draft terms of reference for the 1997 review (IWC, 1996) and Steering Group discussions. As indicated in the draft agenda, the review meeting will cover JARPA work on sightings surveys and abundance estimation, stock structure, biological parameter studies, the marine ecosystem and environmental change including pollution. The results will be reviewed in the context of the stated objectives of the JARPA programme and of stock management. Other results not directly related to JARPA objectives will also be reviewed, e.g. results on blue and humpback whales. In preparing the draft agenda, attention was given to issues raised in the 1997 JARPA Review (IWC, 1998b, p.103).

The Steering Group has not yet reached agreement regarding terms of reference (3) and (4) and Item 9 of the draft Agenda, which deals with these terms of reference. Item 9 covers the relationship of the JARPA research to relevant IWC resolutions and discussions and, in particular, the utility of the lethal techniques used by JARPA compared to non-lethal techniques. Brownell, Childerhouse, Gales and

Zeh believe that terms of reference (3) and (4) and Items 9.1 and 9.2, at least, must be part of the JARPA review because they reflect explicit instructions from the Commission to the SC. These members are open to discussion regarding whether Item 9 should be covered as part of the review meeting or postponed until the SC meeting that considers the report of the review meeting. Fujise, Hatanaka and Pastene believe that terms of reference (3) and (4) and Items 9.1 and 9.2 should not be part of the SC review of JARPA because they deal with political rather than scientific issues and because the SC review should concentrate on how well JARPA objectives have been met and what scientific contributions have been made by the programme. Pastene noted that if Item 9 were to be covered, it should be at a subsequent SC meeting rather than during the review meeting. There was less disagreement among members of the Steering Group regarding draft agenda Items 9.3, 9.4 and 9.5, which were considered useful as a reminder of research encouraged by the Commission which has been conducted under the JARPA programme, than about Items 9.1 and 9.2.

Of course, the Steering Group agreed that the SC should consider only the scientific aspects of the resolutions. It will be necessary to go through any resolutions that are to be considered, extracting and listing the scientific matters involved so that they can be considered independently of non-scientific aspects of those resolutions. The SC will need to do its best to follow Commission instructions in so far as is within its competence. Although many Commission resolutions and discussions have dealt with JARPA, a relatively small number (see Appendix 1) contain the relevant Commission instructions and recommendations, in some cases by noting earlier resolutions.

The objectives of JARPA are summarised by IWC (1998a, p.378):

- (1) estimation of the biological parameters to improve the stock management of the Southern Hemisphere minke whale;
- (2) elucidation of the role of whales in the Antarctic marine ecosystem;
- (3) elucidation of the effect of environmental changes on cetaceans; and
- (4) elucidation of the stock structure of the Southern Hemisphere minke whales to improve stock management.

In addition, in response to a question regarding the sighting surveys conducted as part of the programme and the abundance estimates obtained from those surveys, it was stated that although the primary reason for the sighting surveys was their contribution to objective (1), their pertinence to the RMP and the associated implementation process for Southern Hemisphere minke whales should be seen as a derivative objective.

The JARPA Review Planning Steering Group will need to accomplish several tasks well ahead of the review meeting:

- (1) Compile and circulate:
 - (a) a list of papers arising from JARPA research, including publications in scientific journals and unpublished reports (e.g. SC documents), with abstracts if available;
 - (b) a list of papers to be updated and presented to the IWC JARPA review meeting¹.
- (2) Compile and circulate an annotated list of datasets to be considered, bearing in mind data availability requirements under Procedure B (IWC, 2004a).
- (3) Prepare and circulate suggestions, if any, for additional analyses to be carried out.
- (4) Decide time, venue, facilities, agenda, budget, and relevant participants, including Invited Participants.
- (5) Examine the resolutions and the SC reports mentioned in those resolutions. Outline the topics to be considered under agenda Item 9 and recommend whether these topics should be dealt with during the review meeting or only by the SC as a whole.

It is anticipated that Japanese scientists will prepare the task (1) and (2) lists for consideration by the Steering Group and other SC members, who may suggest additions. An example of such additions would be papers not arising from JARPA that contain methods or results relevant to the discussion of

¹ These lists will be available on the web, and information needed to access them will be circulated through the IWC Secretariat. A provisional version of (b) is the list of papers presented to the JARPA review meeting held in January 2005 by the Japanese Government, given in Annex C of SC/57/O6.

the (1b) papers and which therefore should be available as 'For Information' papers at the review meeting. The Steering Group will make proposals regarding tasks (4) and (5), and possibly (3), for review and amendment by other SC members.

The terms of reference for the Steering Group were to prepare for a review of the JARPA programme in 2005. However, because the last JARPA survey was not completed until late March of 2005, it is likely that the review will need to be postponed until mid or late 2006. That will allow time for careful checking of the final datasets and preparation of papers including all the data, as specified by the SC.

REFERENCES

- International Whaling Commission. 1996. Report of the Scientific Committee. Annex Q. Draft terms of reference for Intersessional Working Group to review data and results from special permit research on minke whales in the Antarctic. *Rep. int. Whal. Commn* 46:224.
- International Whaling Commission. 1998a. Report of the Intersessional Working Group to Review Data and Results from Special Permit Research on Minke Whales in the Antarctic, Tokyo, 12-16 May 1997. *Rep. int. Whal. Commn* 48:377-412.
- International Whaling Commission. 1998b. Report of the Scientific Committee. *Rep. int. Whal. Commn* 48:53-118.
- International Whaling Commission. 2004a. Report of the Scientific Committee. Annex T. Report of the data availability working group. *J. Cetacean Res. Manage. (Suppl.)* 6:406-8.
- International Whaling Commission. 2004b. Report of the Scientific Committee. Annex U. E-mail Correspondence Groups and Terms of Reference. *J. Cetacean Res. Manage. (Suppl.)* 6:409-10.
- International Whaling Commission. 2005a. Report of the Scientific Committee. *J. Cetacean Res. Manage. (Suppl.)* 7:1-62.
- International Whaling Commission. 2005b. Report of the Scientific Committee. Annex U. E-Mail Correspondence Groups and Terms of Reference. *J. Cetacean Res. Manage. (Suppl.)* 7:389-90.

Appendix 1

DRAFT TERMS OF REFERENCE

To review the final results of the Japanese special permit research in the Antarctic, 1987/88-2004/05. To evaluate:

- (1) how well the initial and revised objectives of the research have been met;
- (2) other contributions to important research needs;
- (3) the relationship of the research to relevant IWC resolutions and discussions, including those dealing with the Antarctic marine ecosystem (IWC, 1999), pollution (IWC, 1996b; 1998a; 2000b), environmental changes and their impacts on cetaceans (IWC, 1996b; 1998a; 1999; 2004) and SC reviews of special permit research (IWC, 1996a; 2000a; 2004); in particular,
- (4) the utility of the lethal techniques used by JARPA compared to non-lethal techniques (IWC, 1996a; 2000a).

JARPA work on sightings surveys and abundance estimation, stock structure, biological parameter studies, and studies of the marine ecosystem and environmental change including pollution are to be evaluated, with attention to issues raised in the 1997 JARPA review (IWC, 1998b; c), summarised in Table 2 of IWC (1998c). Relevant aspects of Commission resolutions will be taken into account.

REFERENCES

- International Whaling Commission. 1996a. Chairman's Report of the Forty-Seventh Annual Meeting. Appendix 10. IWC Resolution 1995-9. Resolution on whaling under special permit. *Rep. int. Whal. Commn* 46:46-7.
- International Whaling Commission. 1996b. Chairman's Report of the Forty-Seventh Annual Meeting. Appendix 11. IWC Resolution 1995-10. Resolution on the environment and whale stocks. *Rep. int. Whal. Commn* 46:47-8.
- International Whaling Commission. 1998a. Chairman's Report of the Forty-Ninth Annual Meeting. Appendix 7. IWC Resolution 1997-7. Resolution on environmental change and cetaceans. *Rep. int. Whal. Commn* 48:48-9.
- International Whaling Commission. 1998b. Report of the Intersessional Working Group to Review Data and Results from Special Permit Research on Minke Whales in the Antarctic, Tokyo, 12-16 May 1997. *Rep. int. Whal. Commn* 48:377-412.
- International Whaling Commission. 1998c. Report of the Scientific Committee. *Rep. int. Whal. Commn* 48:53-118.
- International Whaling Commission. 1999. Chairman's Report of the Fiftieth Annual Meeting. Appendix 8. IWC Resolution 1998-7. Resolution on coordinating and planning for environmental research in the Antarctic. *Ann. Rep. Int. Whaling Comm.* 1998:45.
- International Whaling Commission. 2000a. Chairman's Report of the Fifty-First Annual Meeting. Appendix 3. IWC Resolution 1999-2. Resolution on Special Permits for Scientific Research. *Ann. Rep. Int. Whaling Comm.* 1999:52.

International Whaling Commission. 2000b. Chairman's Report of the Fifty-First Annual Meeting. Appendix 5. IWC Resolution 1999-4. Resolution on health effects from the consumption of cetaceans. *Ann. Rep. Int. Whaling Comm.* 1999:53.

International Whaling Commission. 2004. Chair's Report of the Fifty-Fifth Annual Meeting. Annex G. Resolution 2003-3 Adopted during the 55th Annual Meeting. Southern Hemisphere minke whales and Special Permit whaling. *Ann. Rep. Int. Whaling Comm.* 2003:203.

Appendix 2

AGENDA

1. Introductory items
 - 1.1 Welcome and introduction
 - 1.2 Election of chair and appointment of rapporteurs
 - 1.3 Meeting procedures and time schedule
 - 1.4 Adoption of agenda
 - 1.5 Documents available
 - 1.6 Terms of reference for this review
 - 1.7 Objectives of JARPA as stated in the original research proposal and subsequently
 - 1.8 General outline of the JARPA research
 - 1.9 Overview of the 1997 JARPA review and subsequent discussions
 2. Sightings surveys and abundance estimation
 - 2.1 Background
 - 2.2 Issue raised in 1997 JARPA review: Development of method to correct bias of abundance estimates
 - 2.3 Data collection methods and results
 - 2.4 Data analysis methods and results
 - 2.4.1 Minke whales
 - 2.4.2 Other species
 - 2.5 Estimates of trends in abundance
 - 2.5.1 Minke whales
 - 2.5.2 Other species
 3. Stock structure
 - 3.1 Background
 - 3.2 Issues raised in 1997 JARPA review
 - 3.2.1 Stock definition
 - 3.2.2 Statistical analysis of mtDNA data considering the inclusion of school size as a covariate
 - 3.2.3 Pilot study on nuclear DNA analysis on JARPA minke samples
 - 3.2.4 Effort to obtain biological materials for genetic analysis from low latitude areas of the Southern Hemisphere (potential breeding grounds) and compare with feeding ground data
 - 3.2.5 External morphology/morphometry analyses
 - 3.2.6 Examination of possible stock boundaries (geographical and temporal) in Areas IV and V
 - 3.3 Data collection methods and results
 - 3.4 Data analysis methods and results
 - 3.4.1 Genetics
 - 3.4.2 Morphometrics and morphology
 - 3.4.3 Other
 - 3.5 Synthesis
 4. Biological parameter studies
 - 4.1 Background
 - 4.2 Issues raised in 1997 JARPA review
 - 4.2.1 Segregation study
 - 4.2.2 Recalculation of biological parameters by biological stocks
 5. Marine ecosystem
 - 5.1 Background
 - 5.2 Issue raised in 1997 JARPA review: Meso-scale survey plan
 - 5.3 Data collection methods and results
 - 5.4 Data analysis methods and results
 - 5.5 Synthesis
 6. Environmental change including pollution
 - 6.1 Background
 - 6.2 Data collection methods and results
 - 6.3 Data analysis methods and results
 - 6.4 Synthesis
 7. Other results
 - 7.1 Stock structure of humpback whales
 - 7.2 Other
 8. Overview of results in the context of the stated objectives of the JARPA programme and of stock management
 - 8.1 Contributions to minke whale management
 - 8.1.1 Stock abundance and trends
 - 8.1.2 Stock identity
 - 8.1.3 Biological parameters
 - 8.1.3.1 Mortality rates
 - 8.1.3.2 Other
 - 8.2 Marine ecosystem
 - 8.3 Environmental change
 - 8.4 Synthesis
 9. Overview of results in the context of IWC resolutions and discussions
 - 9.1 Utility of lethal versus non-lethal research techniques
 - 9.2 Other mandates regarding SC reviews of special permit research
 - 9.3 With respect to resolutions on the Antarctic marine ecosystem
 - 9.4 With respect to resolutions on pollution
 - 9.5 With respect to resolutions on environmental change and cetacean response
 10. Other matters
 11. Adoption of report
 12. Closure
-