

Annex O1

Report of the Standing Working Group on Scientific Permits

Members: An, Baba, Bando, Bass, Berggren, Bjørge, Brownell, Butterworth, Childerhouse, Clapham, Cozzi, Danielsdottir, DeMaster, Fortuna, Fujise, Funahashi, Gales, Gedamke, Gong, Goto, Grønvik, Gunnlaugsson, Hakamada, Hatanaka, Hayashi, Hester, Ilyashenko, Iñiguez, Iwasaki, Jung Youn, Kanda, Kasuya, Kato, Kawahara, Kell, Kim, Kitakado, Koh, Lawrence, Leaper, Lens, Lovell, Mae, Magloire, Matsuoka, Miyashita, Morishita, Murase, Nishiwaki, Nishiyama, Northridge, Ohsumi, Ohta, Øien, Okamura, Olafdottir, Palazzo, Palka, Panigada, Pastene, Pinto de Lima, Polacheck, Rambally, Reijnders, Ridoux, Rogan, Rojas Bracho, Rose, Sadler, Secchi, Shimada, Simmonds, M., Soh, Sohn, Song, Tanaka, Tominaga, Van Waerebeek, Víkingsson, Wade, Walløe, Walters, Weinrich, Williams, Yamakage, Yasokawa, Yoshida, Zenitani, Zhu.

1. CONVENOR'S OPENING REMARKS

Bjørge opened the meeting and welcomed the participants.

2. ELECTION OF CHAIR

Bjørge was elected to the Chair.

3. APPOINTMENT OF RAPORTEURS

Northridge agreed to act as rapporteur with assistance from Grønvik.

4. ADOPTION OF AGENDA

The agenda was adopted as shown in Appendix 1.

5. DOCUMENTS AVAILABLE

Documents to be considered were SC/57/O1-6 and O14-16.

6. REVIEW OF RESULTS FROM EXISTING PERMITS

The Working Group reviewed the results from two Japanese programmes (on Antarctic minke whales and on North Pacific common minke, sei, Bryde's and sperm whales), and one Icelandic programme on North Atlantic common minke whales.

Further, the Working Group considered a report from a non-IWC meeting on JARPA results, and a progress report from the Planning Steering Group on Preparations for JARPA review.

The entire review of results from existing proposals is found under Item 16.1 of the Scientific Committee plenary report.

7. REVIEW OF NEW OR CONTINUING PROPOSALS

The Working Group reviewed the new proposal (JARPA II) submitted by the Government of Japan for takes of Antarctic minke, fin and humpback whales in the Antarctic (SC/57/O1). The discussion is given under Item 16.2 of the Scientific Committee plenary report. The Working Group did not reach consensus on this programme, and the opposing views are presented in their entirety here in Appendix 2 and Appendix 3.

Further, the Working Group considered the continuing proposals of Japan (JARN II) and Iceland. There were no substantial changes in these proposals since the previous review by the Scientific Committee. The Working Group therefore referred to its comments made at earlier reviews. The entire review of new or continuing proposals is to be found under Item 16.2 of the Scientific Committee plenary report.

8. PROPOSALS TO FACILITATE THE REVIEW PROCESS OF SCIENTIFIC PERMITS

A discussion in the Working Group on possible approaches to improve the review process of scientific permit proposals is reflected under Scientific Committee plenary report Item 16.3.

9. ADOPTION OF REPORT

The report was adopted on the 6 June at 18:15.

Appendix 1

AGENDA

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| 1. Convenor's opening remarks | 6.3 Iceland – North Atlantic common minke whales |
| 2. Election of Chair | 6.4 Review report from non-IWC meeting on JARPA results |
| 3. Appointment of Rapporteurs | 6.5 Preparations for JARPA review |
| 4. Adoption of Agenda | 7. Review of new or continuing proposals |
| 5. Documents available | 7.1 JARPA II |
| | 7.2 JARPN II |
| | 7.3 Iceland |
| 6. Review results from existing permits | 8. Proposals to facilitate the review process of Scientific Permits |
| 6.1 Japan – Antarctic minke whales | |
| 6.2 Japan – North Pacific common minke, Bryde's and sperm whales | 9. Adoption of report |

Appendix 2

COMMENTS ON THE GOVERNMENT OF JAPAN'S PROPOSAL FOR A SECOND PHASE OF SPECIAL PERMIT WHALING IN ANTARCTICA (JARPA II)

S. Childerhouse (New Zealand), N. Gales (Australia), C.S. Baker (New Zealand), C. Bass (UK), P. Berggren (Sweden), J. Bickham (USA), J. Breiwick (USA), R. Brownell (USA), C. Carlson (USA), J-B. Charrassin (France), F. Cipriano (IP), P. Clapham (USA), T. Collins (IP), J. Cooke (IUCN), B. Cozzi (Italy), W. Dinter (Germany), M. Engel (Brazil), K. Findlay (IP), C. Fortuna (Italy), N. Funahashi (IP), J. Gedamke (Australia), K. Groch (Brazil), M. Iniguez (Argentina), T. Kasuya (IP), L. Kell (UK), K-H. Kock (Germany), M. Krahn (USA), R. Leaper (UK), R. LeDuc (USA), D. Mattila (IP), S. Moore (USA), S. Northridge (UK), C. Olavarria (IP), J. Palazzo (Brazil), S. Panigada (Italy), C. Parsons (UK), W. Perrin (USA), C. Pomilla (IP), L. Porter (IP), P. Reijnders (Netherlands), V. Ridoux (France), F. Ritter (Germany), J. Robbins (USA), E. Rogan (Ireland), L. Rojas (Mexico), N. Rose (IP), H. Rosenbaum (USA), T. Rowles (USA), L. Sadler (UK), E. Secchi (IP), D. Senn (Switzerland), M. Simmonds (UK), M. Sironi (IP), M. Stachowitsch (Austria), D. Thiele (Australia), J. Urban (Mexico), P. Wade (USA), K. Van Waerebeek (Belgium), R. Waples (USA), M. Weinrich (IP), R. Williams (IP), B. Wilson (UK) and A. Zerbini (IP). [IP=Invited Participant].

Earlier this year the Government of Japan concluded an 18-year programme of whaling under special permit in Antarctic waters (the JARPA programme). During the years of its operation, JARPA killed more than 6,800 minke whales (almost all *Balaenoptera bonaerensis*). Because the data collection of JARPA ended in early 2005, the results of that programme cannot be reviewed by the Scientific Committee (SC) until 2006 or 2007, and JARPA has published very little in the international peer-reviewed literature with which to judge the quality of its research and its relevance to the management of whales by IWC. Despite this, Japan now proposes a second phase of special permit whaling (JARPA II) to commence during the austral summer of 2005/06. JARPA II will more than double the annual catch of minke whales and also take 50 fin (*B. physalus*) and 50 humpback whales (*Megaptera novaengliae*) each year. Furthermore, the proposal indicates that Japan intends to abandon the accepted IWC method of managing whale stocks, the Revised Management Procedure (RMP), in favour of a speculative 'multi-species' approach which essentially proposes the selected culling of more abundant whales (e.g. minke whales) in order to promote recovery of depleted large whales (e.g. blue whales).

With the new proposal Japan will increase its annual take of whales under special permit to a level where, in each year, it will take almost half the number of all whales ever taken under special permit by all other nations combined. These

levels are also approaching the annual commercial quotas for Antarctic minke whales that were in place prior to the moratorium. This is clearly far beyond the intention envisaged when Article 8 of the Convention was developed, and means that the SC has a serious responsibility to ensure that any current and proposed programmes for special permit whaling are reviewed in a transparent and thorough scientific manner that can stand the scrutiny of the international scientific community. Such levels of take should also be subject to the same regulatory measures as commercial whaling, i.e. the full RMP process.

First and foremost, it is scientifically invalid to review the JARPA II proposal before the IWC has had a chance to conduct a full review of the results of the original 18 year JARPA programme. If JARPA II goes forward, it will have already been in operation for two years (and will have taken almost 2,000 whales) before this review can be conducted, and without such an in-depth review the SC cannot make a meaningful assessment of the relevance of the proposed research, or the need for the proposed catches.

By bringing this proposal forward at this time the Government of Japan has substantially compromised the capacity of the SC to perform its task as designated by the Commission in its 'Guidelines for the Review of Scientific Permit Proposals' (Donovan, 2001) and puts at stake the capacity of the SC to provide objective and representative scientific advice to the Commission.

Consequently, we 63 scientists, (including representatives from 16 national delegations and 16 other participants), attending the IWC SC/57 meeting feel unable to engage in a scientifically defensible process of review of the JARPA II proposal. To do so would substantially undermine the scientific credibility of this organisation. Instead we submit the following brief comments on serious concerns and issues that are raised by the proposal, and we feel that this proposal can be addressed by the SC only when the JARPA review is complete. Our comments are structured in accordance with the Commission's guidelines.

1. Objectives

- (a) Under the RMP, the management procedure currently accepted by the IWC, most of the data requested in the JARPA II proposal are not required.
- (b) The objectives in the proposal are based on several unsubstantiated or incorrect assumptions:
 - (i) That whales are directly competing with each other. Whilst overlap of prey (Antarctic krill) is well established for most of the Antarctic baleen whales, there are no accepted models to indicate any level of competition between whales, nor, indeed, that krill production is controlled by top-down influences, such as predation by whales.
 - (ii) That the reduction of one species (minke whales) will result in an increase of another species (blue whales). Current evidence refutes this.
 - (iii) That minke whales are top predators. While minke whales are a high predator, they are a component of a wide clade of predators at the same level which include whales, seals, birds and fish.
 - (iv) That blue whale low abundance and recovery is due to minke and humpback whale populations. This hypothesis fails to include the other major biomass krill predator species such as seals and sea birds.
- (c) The proposal is open ended and has no time limit by which it can be assessed.
- (d) CCAMLR expertise is necessary to evaluate ecosystem interactions such as competition assumptions.
- (e) Even if the IWC decided to move to a multi-species management procedure, the proposal does not have well-defined hypotheses and performance criteria.

2. Methodology

- (a) The proposed research is supposed to address questions that cannot be answered by analysis of existing data. However, without a review of the data already collected in the previous 18 years it is not possible to evaluate this critical issue, especially as the new proposal provides an undefended rationale to more than double the take of minke whales.

- (b) The research claims to address a question or questions that cannot be practically or scientifically achieved by non-lethal means. In this case, the use of non-lethal means (biopsy) has been clearly demonstrated to address temporal and spatial changes in stock structuring, which is an important component of the RMP.
- (c) The research is supposed to yield results leading to reliable answers to the questions being addressed. However, the research methodologies specified in the proposal are very poorly developed and presented, and they thus negate the possibility of a reasonable review.

3. Effects of catches on stocks

- (a) This analysis is difficult or impossible to do without recent in-depth assessments of minke, humpbacks and fin whales. No current agreed abundance estimates exist for any of these species in the area where JARPA II takes will occur. Similarly, stock structuring remains poorly defined in all species.
- (b) Particular concerns on this issue are:
 - (i) The determination of the extent and possible reasons for an apparent substantial decline in abundance of Antarctic minke whales.
 - (ii) The targeting of species that were subject to massive over-exploitation during earlier whaling, whose populations were taken to dangerously low levels and which remain well below their pre-exploitation abundance.
 - (iii) A lack of any agreed estimates of fin whale abundance, population trend or stock structure.
 - (iv) The potential impact of take of humpback whales from small, poorly understood and highly threatened populations in the South Pacific (e.g. Fiji, Samoa, Cook Islands, etc.)
 - (v) The potential impact of takes of humpback whales on existing, non-lethal research programmes in Australia, New Zealand and elsewhere in the South Pacific.
- (c) Given the dramatic increase in the take of minke whales to levels that may exceed any RMP-derived catch limits, and notwithstanding our lack of agreed abundance data, the SC has no capacity to determine potential sustainability of takes because it has been instructed by the Commission 'not to consider Southern Hemisphere minke whales in the context of implementation of the RMP unless advised to do so by the Commission'.

REFERENCE

- Donovan, G. 2001. Report of the Scientific Committee. Annex Y. Guidelines for the Review of Scientific Permit Proposals. *J. Cetacean Res. Manage. (Suppl.)* 3:371-2.

Appendix 3

RESPONSE TO APPENDIX 2

H. Hatanaka, J. Morishita, D. Goodman, L.A. Pastene and Y. Fujise

It is regrettable that Appendix 2 concludes that ‘the Government of Japan has substantially compromised the capacity of the Scientific Committee (SC) to perform its tasks and puts at stake the capacity of the SC to provide objective and representative scientific advice to the Commission’ on the basis of the false premise that ‘without a full review (of the original 18 year JARPA programme) the SC cannot make a meaningful assessment of the relevance of the proposed research (JARPA II), or the need for the proposed catches’.

It is the use of this false premise as the basis for saying that the SC cannot review the proposed research that compromises the SC’s ability to meet its obligations under paragraph 30 of the Schedule and the Commission’s Rules of Procedure. Paragraph 30 of the Schedule to the ICRW says that: ‘Proposed permits shall (emphasis added) be reviewed and commented on by the Scientific Committee at Annual Meetings when possible’. Further, under the Commission’s Rule of Procedure M.4, the SC ‘...shall (emphasis added) review the scientific permits and scientific programmes for which Contracting Governments plan to issue scientific permits’. It is also a denial of the fundamental principle that science based policy and rulemaking must be the basis for the management of resources and the requirements for such under Articles V and VIII of the ICRW.

The primary objective of the JARPA II which is clearly stated in the proposed plan (SC/57/O1) and summarised in the report of the Standing Working Group on Scientific Permits, has been ignored by the authors of Appendix 2.

Appendix 2 also says that ‘Japan intends to abandon the accepted... (RMP), in favour of a speculative approach which proposes that selected culling be conducted...’. This is an erroneous interpretation of Japan’s intention to improve the RMP as a tool for managing commercial whaling on a sustainable basis. It is now more than 10 years since the RMP was adopted and it is a normal process of the advancement of science that improvements to the RMP can be made with substantial data accumulated by JARPA together with data from JARPA II.

Appendix 2 makes several references to the size of catches taken under JARPA and proposed under JARPA II in terms of RMP and the intention of Article VIII. It also mistakenly describes the proposed increase in minke whale catches as having ‘an undefended rationale’. Catches under JARPA II have been calculated as the minimum required to obtain statistically significant data. Given that the stocks to be sampled are abundant and, for humpback and fin whales, increasing rapidly, it is quite logical that the sample size is correspondingly large. These calculations and their rationale together with an examination of the effects of these catches on the stocks are clearly presented in the research plan (SC/57/O1).

It must be noted that quotas under the RMP are calculated such that catches for a period of 100 years would not negatively affect the stock and that it is not envisaged that JARPA II would be carried out for that period of time. Comparing catches under JARPA II with quotas that would be calculated under the RMP is therefore not appropriate.

The comments in Appendix 2 relating the JARPA II sample sizes to the RMP also ignore the fact that the RMP is for commercial whaling – it does not apply to Article VIII research whaling. It is however interesting to note that if the RMP were implemented, it would regulate the total take including research whaling catches.

With regard to the premise in Appendix 2 that JARPA II cannot be reviewed until the original 18 year programme has been reviewed, it should be noted that at its half way point in 1997, the SC did review the results of JARPA (IWC, 1998). The SC noted that the programme had made a major contribution to understanding of certain biological parameters and provided considerable data which could be directly relevant for management (IWC, 1998). The SC also noted that non-lethal means to obtain some of this information were unlikely to be successful particularly in the Antarctic (IWC, 1998).

Further, in January 2005, the Government of Japan held a meeting to review 17 years of data from the 18 year programme. This meeting was open to any interested scientists and the report of that meeting was submitted to SC/57 (SC/57/O6). It is unreasonable and unacceptable for those scientists who decided for political reasons not to attend that meeting to now blame Japan for undermining SC credibility. Data from 17 of the 18 year JARPA programme has been reviewed and was used in the development of JARPA II.

Appendix 2 also uses the excuse that ‘JARPA has published very little in the international peer-reviewed literature with which to judge the quality of its research and its relevance to the management of whales by IWC’ as a reason for the inability of scientists in the SC to review the programme. This statement is simply untrue and ignores the fact that Japan has submitted data and reports from JARPA to the SC every year. Japan has made more than 150 scientific papers available to the Scientific Committee and had a further 79 papers published in peer-reviewed scientific journals. Japan has also provided data through the SC data availability protocol. The excuse also ignores the fact that many journals that publish in English have refused to accept papers with data from lethal research. This refusal has nothing to do with the scientific quality of the research.

Responses to ‘serious concerns and issues’ that are raised in Appendix 2. (Numbering below corresponds to the numbering in that Appendix).

1. Objectives

- (a) JARPA II provides abundance estimates for calculating catch limits under the RMP, and also provides biological parameters for in-depth assessment and information on stock structure for implementation of the RMP.
- (b) Objectives of JARPA II are based on scientific evidence and important hypotheses. JARPA revealed that the Antarctic ecosystem is changing. Some hypotheses for understanding changes in biological parameters of minke whales and changes in the balance among baleen whales are proposed in JARPA II. These will be developed further through the JARPA II programme.
 - (i) There are intra- and inter-species relationships among whales for their major food resource, krill.

Modelling of the Antarctic ecosystem has been developed in IWC (e.g. SC/57/O21) and CCAMLR. However, the advance is rather slow due to the lack of sufficient information. JARPA and JARPA II will provide a wide variety of data and accelerate the development of ecosystem studies.

- (ii) It was hypothesised broadly that the depletion of large baleen whales (blue, fin and humpback) resulted in the increase of minke whales, seals and sea birds. It is plausible that the reduction of one species (e.g. minke) would have some potential direct and indirect effect on other species (e.g. blue whales).
 - (iii) JARPA II will start to define inter-species relationships among whale species in the ecosystem model, and it will incorporate other krill predators (seals, sea birds and so on).
 - (iv) Blue whales were depleted by over hunting, and their recovery will be examined through ecosystem models incorporating other predators including seals and sea birds to the extent possible.
- (c) JARPA II will be reviewed at the end of the first six years of the research, and results will be evaluated. Revisions will be made to the programme if required.
 - (d) Information from CCAMLR is used for modelling inter-species relationships in JARPA II and the contribution by CCAMLR to the JARPA II programme is welcomed.
 - (e) JARPA II provides a wide variety of data useful to developing a multi-species management procedure. Hypotheses will be developed and their performance tested based on time series data obtained through JARPA and JARPA II. Performance of the various components of the research programme will be judged on the basis of the contribution of results to the improved understanding of the Antarctic ecosystem.

2. Methodology

- (a) A review meeting for results from JARPA was conducted in January 2005 (SC/57/O6). Participants from eight countries agreed on the following, 'JARPA has revealed that changes have occurred in the ecosystem since the 1970s, suggesting competition among minke and other large whales'. Sample sizes were determined as minimum numbers of samples required to achieve the research objectives. Details of calculation for the sample sizes are described in Appendices 4, 6, 7 and 8 of the research plan (SC/57/O1).
- (b) Non-lethal means are not satisfactory to address all objectives of the planned JARPA II. For example, age of whale, nutritional condition of the whale, food consumption, and heavy metal load cannot be obtained by the current non-lethal methods. As for the former JARPA, JARPA II will be conducted as a comprehensive research plan using lethal and non-lethal methods allocated properly for each research objective.
- (c) Most of the research methods used in JARPA II were established through a research period of 18 years in JARPA. These methods were reviewed and evaluated as appropriate in the review meeting of JARPA held by the Government of Japan in January 2005 (SC/57/O6).

3. Effects of catches on stocks

- (a) Abundance estimates used in the analyses on effects of catches on minke whale stocks, were obtained through the JARPA and SOWER programmes. It is reasonable to

- use more than one estimate; the effects of catches were evaluated mainly by considering the case of the smaller estimate. For humpback whales, abundance trends and increase rates were consistent between results from JARPA and Australian surveys. Therefore the reliability of these abundance estimates will be high. Distribution of the fin whale extends further north beyond the JARPA survey area. Therefore the abundance estimates used for analyses are underestimated. Catches will not negatively affect these stocks as described in SC/57/O1 and b(ii) and (iii) below. Information on stock structure for fin whales is poor but not for Antarctic minke and humpback whales. Samples taken by JARPA between 1987/88-2003/04 were used in a comprehensive analysis to investigate stock structure in the Antarctic minke whales, and a new hypothesis based on large sample sizes and results of different techniques has been now proposed (Pastene *et al.*, 2005a). Regarding humpback whales, the SC suggested putative breeding grounds, feeding grounds and migratory corridors for this species in 2000 (IWC, 2001). These feeding grounds were tested using genetic data obtained from JARPA and significant differences were obtained among C, D, E and F supporting the conclusion of the SC in 2000 (Pastene *et al.*, 2005b).
- (b) (i) JARPA showed a consistent trend of minke whale abundance and no statistically significant decreasing or increasing trend during 16 years. The apparent abrupt decline in abundance from SOWER estimates is not biologically plausible given the biological and age data from JARPA.
 - (ii) JARPA and Australian survey showed rapid recovery and high increasing rates of humpback whales. The population dynamics model used in JARPA showed no delay of recovery for the take proposed in JARPA II. It is clear that targeted stocks of humpback whales are not at dangerously low levels.
 - (iii) The recovery of fin whales was also shown in JARPA surveys. Extrapolation of these underestimated estimates for unsurveyed areas suggests large stock sizes that could easily tolerate the small take planned in JARPA II. Historical information based on historical catch analyses suggested a stock structure based on oceanic basin (Mackintosh, 1965). Information on stock structure will be improved through the JARPA II programme.
 - (iv) Genetic and photo-ID analyses of humpback whales being conducted in the South Pacific are not conclusive yet. For example genetic analysis for different breeding grounds has not included the Eastern Australia samples yet. Furthermore, if whales show some degree of site fidelity to feeding areas, some differences should be detected among small sectors in Area V. This has not been observed. Further research is necessary to examine this issue, possibly incorporating DNA sequences from low and high latitudes in a single analysis.
 - (v) Planned take of humpback whales is far less than 1% of estimated abundance therefore the impact on existing non-lethal research programmes will be negligible. On the contrary, information from JARPA II will contribute to existing non-lethal research programmes because it can provide data not possible in non-lethal sampling.

- (c) The RMP was developed for commercial whaling and it should not be applied to the scientific permit research. The results of FITTER calculations showed an increasing trend or maintaining abundance near the carrying capacity under the planned take of JARPA II. This means that stocks will be sustained.

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- Pastene, L., Goto, M., Kanda, N. and Nishiwaki, S. 2005b. Genetic analyses on stock identification in the Antarctic humpback and fin whales based on samples collected under the JARPA. Paper JA/J05/JR16 presented to the JARPA Review meeting called by the Government of Japan, January 2005, Tokyo (unpublished). 12pp. [Available from: www.icrwhale.org/eng-index.html].
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