

CIRCULAR COMMUNICATION TO MEMBERS OF THE SCIENTIFIC COMMITTEE
IWC.SC.117

JARPA Review Meeting, Tokyo, 4-8 December 2006

Judy Zeh, Convenor of the JARPA Review Planning Steering Group, has asked that the attached information on the JARPA review meeting be circulated to all members of the Scientific Committee. It includes information on:

- Terms of Reference and draft Agenda;
- the venue and timing;
- participation and accommodation arrangements;
- available data and bibliography;
- data access protocol.

Dr. Nicky Grandy
Secretary to the Commission

JARPA Review Meeting, Tokyo, 4-8 December 2006

JUDY ZEH, CONVENOR OF THE JARPA REVIEW PLANNING STEERING GROUP

Terms of reference and draft Agenda

As you are aware, the Scientific Committee agreed to hold an intersessional scientific workshop to assist in its review of the results of the Japanese special permit research in the Antarctic (JARPA) programme, 1987/88-2004/05. The objectives of the review are to evaluate:

- (a) how well the initial and revised objectives of the research have been met;
- (b) other contributions to important research needs;
- (c) the relationship of the research to relevant IWC resolutions and discussions, including those dealing with the Antarctic marine ecosystem, environmental changes and their impact on cetaceans and Committee reviews of special permit research; and
- (d) the utility of the lethal techniques used by JARPA compared to non-lethal techniques.

The Committee agreed that the review will consider only scientific issues; ethical issues are beyond its competence. This will be taken into account in the discussion under item (c). The Committee also agreed that some discussions of the respective merits of lethal and non-lethal methodology (item (d) is important and that Invited Participants can contribute to that debate. However, the Committee noted that main focus of the review workshop will be on Items 1-8 of the draft agenda (given as Appendix 1 below); the more contentious issues under Item 9 will mainly be discussed at the subsequent annual meeting (JCRM 8, pp48).

The convenor of the JARPA Review is Judy Zeh and the Workshop will be chaired by John Bannister.

Venue

The workshop will take place at the main meeting room of the Institute of Cetacean Research in Tokyo, from **4-8 December 2006**. The meeting room has a capacity for a maximum of 50 participants. In case the number of participants exceeds that number, an alternative place for the meeting will be considered and information provided in a later stage.

Participants

Although this is a specialist workshop, it is of course open to all members of the Scientific Committee to attend. Please inform the Secretariat (jemma.miller@iwcoffice.org) **no later than 4 October 2006** if you wish to attend. Luis Pastene (pastene@cetacean.jp) has kindly agreed to make arrangements for accommodation of participants. Interested participants should contact Luis **no later than 4 October 2006** giving him their expected arrival and departure dates (NOTE: the second intersessional workshop for the western North Pacific Bryde's whale *Implementation* will be held in Tokyo from 10-14 December).

Available data and bibliography

An annotated list of JARPA datasets has been prepared (and is given as Appendix 2 to this circular). A list of papers and oral presentations arising from JARPA research, including publications in scientific journals and unpublished reports (e.g. SC documents), with abstracts, is available at the following web page: <http://www.icrwhale.org/JARPAReview1.htm>. SC members can access to this list using the following ID: icr-japan and password:contriJARPA.

Data access protocol

Datasets (see Appendix 2) will be made available to accredited scientists under Committee's Data Availability Agreement Procedure B, for the specific purpose of the JARPA review. Under Procedure B, the final decision as to whether to release the data for an individual request lies with the data holder. Details of the Scientific Committee's data availability protocols can be found on the data availability page of the IWC website (http://www.iwcoffice.org/commission/sci_com/data_availability) and in JCRM 6 (suppl) 56-7; 406-8. Research proposals involving requests for access to any JARPA data must follow the appropriate ICR protocol (given on the IWC website data availability page above) and be submitted to Debbie Palka (dpalka@whsun1.wh.who.edu) with copy to Greg Donovan (greg.donovan@iwcoffice.org) and Arne Bjørge (arne.bjorge@imr.no), the Data Availability Group (DAG). The normal process will apply i.e. the DAG will evaluate the proposal to ensure its relevance to the review and within two weeks of receipt, submit acceptable proposals to ICR. Under normal circumstances, ICR will review the proposal and forward the appropriate data within two weeks of receipt of the request. The Steering Group will be informed of data requests.

Appendix 1

DRAFT 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 (1998ab)
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
 - 4.3 Data collection methods and results
 - 4.4 Data analysis methods and results
 - 4.4.1 Mortality rates
 - 4.4.2 Growth curves and age at sexual maturity
 - 4.4.3 Reproductive rates
 - 4.4.4 Other

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

6. Environmental change including pollution
 - 6.1 Background
 - 6.2 Data collection methods and results
 - 6.3 Data analysis methods and results

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

9. Overview of results in the context of IWC resolutions and discussions
 - 9.1 Utility of lethal versus non-lethal research techniques (IWC, 1996b, 2000a)
 - 9.2 Other mandates regarding SC reviews of special permit research (IWC, 1996b, 2000a, 2004d)
 - 9.3 With respect to resolutions on the Antarctic marine ecosystem (IWC, 1999)
 - 9.4 With respect to resolutions on pollution (IWC, 1996c, 1998c, 2000b)
 - 9.5 With respect to resolutions on environmental change and cetacean response (IWC, 1996c, 1998c, 1999, 2004d)

10. Other matters

11. Adoption of report

Appendix 2

List of JARPA data sets. sighting data, biological data for Antarctic minke whales, genetic data for other large whales and environmental data collected by the JARPA in the period 1987/88-2004/05

I SIGHTING DATA

		Total sample size
1	Angle and distance experiment data (no. of experiments)	6,426
2	Ice edge line	30
3	Photo-ID, humpback whale (no. of photographs)	502
4	Photo-ID, right whale (no. of photographs)	243
5	Photo-ID, blue whale (no. of photographs)	153
6	Sighting data (no of schools)	48,600
7	Survey effort data (number of activity of SV and SSVs)	118,099
8	Weather data (number of observation of weather)	94,840

II BIOLOGICAL DATA (ANTARCTIC MINKE WHALE)

		Number of targeted individuals		
		Male	Female	Total
9	Age	3,626	3,151	6,777
10	Blubber thickness (3 point/14 points)	3,626	3,151	6,777
11	Body length	3,626	3,151	6,777
12	Body proportion	3,626	3,151	6,777
13	Body weight	3,466	3,025	6,491
14	Catching date	3,627	3,151	6,778
15	Catching location	3,627	3,151	6,778
16	Corpora albicantia and lutea (number)	-	3,151	3,151
17	Diatom film	3,626	3,151	6,777
18	Discovery-type marks recovery	3,626	3,151	6,777
19	Foetus, body length	-	-	1,876
20	Foetus, body weight	-	-	1,876
21	Foetus, number	-	3,151	3,151
22	Foetus, sex	-	-	1,876
23	Freshness of stomach contents	3,626	3,151	6,777
24	Girth	3,626	3,151	6,777
25	Lactation condition	-	2,064	2,064
26	Main Prev species in stomach contents	3,626	3,151	6,777
27	Maturity stage	3,626	3,151	6,777
28	Mitochondrial DNA control region sequences	555	499	1,054
29	Mitochondrial DNA RFLP-derived haplotype distribution	3,627	3,151	6,778
30	Nuclear DNA microsatellite (6 loci), minke whale	3,389	2,881	6,270
31	Organ weights	606	512	1,118
32	Parasites, external occurrence record	3,626	3,151	6,777
33	Parasites, internal occurrence record	3,626	3,151	6,777
34	Physical maturity	3,531	3,068	6,599
35	Sex	3,627	3,151	6,778
36	Skull (length and breadth)	3,626	3,151	6,777
37	Stomach contents (IWS format)	3,626	3,151	6,777
38	Stomach contents weights	3,626	3,151	6,777
39	Testis weight	3,626	-	3,626
40	Transition phase	3,626	3,151	6,777

III DNA DATA AVAILABLE FOR OTHER LARGE WHALES (Obtained from biopsy sampling)

		Number of targeted individuals		
		Male	Female	Total
41	Mitochondrial DNA control region sequences, blue whale			22
42	Mitochondrial DNA control region sequences, fin whale			28
43	Mitochondrial DNA control region sequences, humpback whale	176	166	342
44	Mitochondrial DNA control region sequences, sei whale			1
45	Mitochondrial DNA control region sequences, right whale			36
46	Nuclear DNA microsatellite (6 loci), humpback whale	176	166	342

IV ENVIRONMENTAL DATA

		Number of individuals		
		Male	Female	Total
47	Heavy metals (liver)	921	151	1,072
48	Heavy metals (stomach contents)	67	33	100
49	Marine debris (stomach contents)	3,626	3,151	6,777
50	Organochlorine (blubber)	111	2	113
		Number of samples		
51	Organochlorine compounds (air)	4		
52	Organochlorine compounds (sea water)	4		
53	Marine debris (sighting survey)	255		
54	Temperature (XBT survey)	916		
55	Temperature & Salinity (XCTD survey)	915		
56	Temperature & Salinity (CTD survey)	499		
57	Temperature & Salinity (EPCS survey, days)	1,307		
58	Echo sounder (krill distribution, days)	612		

Addendum of the list of JARPA data sets (the dataset of the RV/KAIYO MARU Antarctic Ross sea survey in 2004/05)

The Report of the Kaiyo Maru Antarctic Survey in 2004/05

Navigation Data

Field Note

 Noon position

 Climate and Sea

 Iceberg

Climate and Sea Satellite Information

 Climate

 Sea Ice

Survey Point Field Book

Physical Environment Data

 Data Excel CSV

 Raw Data/ADCP

 CTD/Parm

 Report

 EPCS

 XBT

 XCTD

Chemical Environment Data

Primary Production Data

Acoustic Survey

 Acoustic Export/Track

 Checked

 ekset / 1999-2000 K rill / daily backup

 2001 Tangaroa

 Backup

 Daily backup

 SA Map CSV

Biological Data

 Fish

 Krill

 Salpa

 Squid

RMT

 Sample Photos

 Total Field note

Sighting Data