

Scientific contribution from JARPN/JARPN II

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The Japanese Whale Research Program under Special Permit in the North Pacific (JARPN) was conducted between 1994 and 1999. The JARPN had two main objectives: a) determine the stock structure of common minke whale, and in particular to investigate whether or not the “W” stock exists and if so to estimate mixing rates between “O” and “W” stocks, and b) determine the feeding ecology of the common minke whale in the North Pacific.

The International Whaling Commission’s Scientific Committee (IWC/SC) carried out a workshop in February 2000 to review data and results of JARPN.

JARPN II started with two feasibility surveys in 2000 and 2001. The first full survey started in 2002. The objectives of the JARPN II are the following: a) feeding ecology and ecosystem studies (prey consumption by cetaceans, prey preference of cetaceans, ecosystem modeling); b) monitoring environmental pollutant in cetaceans and the marine ecosystem (pattern of accumulation of pollutants in cetaceans, bioaccumulation process of pollutants through the food chain, relationships between chemical pollutants and cetacean health), and c) stock structure of large whales (common minke whale, Bryde’s whale, sei whale and sperm whale).

The IWC/SC is currently planning a review of the data and results collected by JARPN II in its six first years (2002-2007).

Scientific contribution of JARPN/JARPN II

Scientific contribution of JARPN/JARPN II has been made available in different forms, as scientific documents for the IWC/SC meetings, as publications in peer reviewed journals, and as oral presentations at scientific symposiums.

Table 1 shows the number of IWC/SC documents, peer-reviewed publications and oral presentations at scientific symposium based on JARPN/JARPN II sample/data, by year.

IWC/SC documents

In the period 1994-2008 a total of 127 documents were presented to annual and intersessional meetings of the IWC/SC, with an annual average of 8.5 documents. Several of these documents were prepared by or in collaboration with foreign scientists. Documents were presented mainly at the RMP, IA and SP sub-committees, which deal mainly with management of whales.

Peer reviewed publications

The number of peer-reviewed papers made in the period 1994-2008 is 51, with an annual average of 3.4 documents. These contributions have been made not only in the field of whale management but also in the field of whale natural sciences. Again several of these papers were prepared by or in collaboration with foreign scientists.

Oral presentations at symposium

The number of oral presentations made at scientific symposium in the period 1994-2008 is 120, with an annual average of 8.0 documents. These contributions have been made not only in the field of whale management but also in the field of whale natural sciences. Titles and contents of such presentations can be found in the annual progress report of the Institute of Cetacean Research (ICR).

The list of IWC/SC documents and peer-reviewed papers derived from JARPN/JARPN II is shown in the Appendix 1. The list is ordered according to the three main research objectives of JARPN II. An asterisk indicates those papers published in peer-reviewed journals.

Other scientific contribution

JARPN/JARPN material has been used in:

- a) Pre-graduated, master and doctoral thesis: 4
- b) Chapters of books: 22

- c) Local bulletin of ICR (*Geiken Tsushin*) and Suisan Shigen Kanri Danwakaihou: 23
- d) Other reports: 4

JARPN/JARPN II biological material such as whale skeletons has been provided to municipal museums.

Data access and availability

All the data and samples obtained by JARPN-JARPN II have been available to the national and international scientific community through established data access protocols. Appendix 2 shows the data access protocol of ICR, which can also be found at the IWC/SC web page. As a result ICR scientists carried research collaboration with a number of national and international scientists and research institutions, as indicated above.

Table 1: Scientific contribution of JARPN/JARPN II

Year	IWC/SC documents	Peer reviewed publications	Oral presentations at symposium
1994	1	0	0
1995	5	0	2
1996	7	3	5
1997	5	5	2
1998	3	4	3
1999	3	2	3
2000	41	2	10
2001	6	1	11
2002	12	5	12
2003	7	4	22
2004	11	4	12
2005	13	6	12
2006	6	4	16
2007	7	10	10
2008	-	1	0
Total	127	51	120

Appendix 1

List of scientific papers based on data and samples collected by JARPN and JARPN II (peer-reviewed papers and unpublished documents submitted to the IWC/Scientific Committee). Asterisks indicate those papers published in peer reviewed journals.

[1994](1)

Hori, H., Bessho, Y., Kawabata, R., Watanabe, I., Koga, A. and Pastene, L.A. 1994. World-wide population structure of minke whales deduced from mitochondrial DNA control region sequences. Paper SC/46/SH14 presented to the IWC Scientific Committee, May 1994 (unpublished). 11pp.

[1995](5)

Fujise, Y. 1995. Preliminary analysis of heavy metals and organochlorines in minke whales taken from the coastal Japan (sub-area 7) and offshore area (sub-area 9) in the western North Pacific. Paper SC/47/NP5 presented to the IWC Scientific Committee, May 1995 (unpublished). 9pp.

Fujise, Y. and Kato, H. 1995. Preliminary report of morphological differences of minke whales between coastal Japan (sub-area 7) and offshore area (sub-area 9) of western North Pacific. Paper SC/47/NP6 presented to the IWC Scientific Committee, May 1995 (unpublished). 9pp.

Goto, M. and Pastene, L.A. 1995. Populations differentiation in the western North Pacific minke whale as revealed by RFLP analysis of mitochondrial D-loop DNA. Paper SC/47/NP4 presented to the IWC Scientific Committee, May 1995 (unpublished). 15pp.

Wada, S. 1995. Comparison of allele frequencies between minke whale samples from Japanese coastal waters and pelagic waters (subarea 9). Paper SC/47/NP7 presented to the IWC Scientific Committee, May 1995 (unpublished). 4pp.

Fujise, Y., Kishiro, T., Zenitani, R., Matsuoka, K., Kawasaki, M. and Shimamoto, K. 1995. Cruise report of the Japanese Whale Research Program under a Special Permit for North Pacific Minke Whales in 1994. Paper SC/47/NP3 presented to the IWC Scientific Committee, May 1995 (unpublished). 29pp.

[1996](10)

Aono, S., Tanabe, S., Fujise, Y. and Tatsukawa, R. 1996. Specific accumulation of persistent organochlorines in minke whale (*Balaenoptera acutorostrata*) and their prey species from the Antarctic and the North Pacific. Paper SC/48/O22 presented to the IWC Scientific Committee, June 1996 (unpublished). 10pp.

*Butterworth, D.S., Geromont H.F. and Wada S. 1996. Further analysis of allele frequency data to provide estimates of the extent of mixing between the various North Pacific minke whale stocks, and their implications for the status of the "O" stock. *Rep. int. Whal. Commn* 46: 443-451.

Fujise, Y. 1996. Heavy metal concentrations in minke whales from the Pacific coast of Japan and an offshore area in the western North Pacific. Paper SC/48/NP22 presented to the IWC Scientific Committee, June 1996 (unpublished). 7pp.

Fujise, Y. and Kato, H. 1996. Some Morphological Aspects of the Western North Pacific Minke Whales: Preliminary Analyses of Materials from the JARPN Surveys in 1994-5. Paper SC/48/NP11 presented to the IWC Scientific Committee, June 1996 (unpublished). 10pp.

Fujise, Y., Iwasaki, T., Zenitani, R., Araki, J., Matsuoka, K., Tamura, T., Aono, S., Yoshida, T., Hidaka, H., Nibe, T. and Tohyama, D. 1996. Cruise report of the Japanese Whale Research Program under a Special Permit for North Pacific minke whales in 1995 with the results of a preliminary analysis of data collected. Paper SC/48/NP13 presented to the IWC Scientific Committee, June 1996 (unpublished). 39pp.

Iwasaki, T. 1996. Constituents of the urine in the North Pacific minke whales with some notes on urinary concentrations of sex steroid hormones. Paper SC/48/NP14 presented to the IWC Scientific Committee, June 1996 (unpublished). 9pp.

*Kuramochi, T., Machida, M., Araki, J., Uchida, A., Kishiro, T. and Nagasawa, K. 1996. Minke whales (*Balaenoptera acutorostrata*) are one of the major final hosts of *Anisakis simplex* (Nematoda: Anisakidae) in the Northwestern North Pacific Ocean. *Rep. int. Whal. Commn* 46: 415-419.

Miyashita, T. and Fujise, Y. 1996. Abundance estimate of the western North Pacific minke whale using sighting data of the Japanese Whale Program under a Special Permit in sub-area 9 and notes on the results of dedicated sighting surveys. Paper SC/48/NP7 presented to the IWC Scientific Committee, June 1996 (unpublished). 10pp.

*Miyashita, T. and Fujise, Y. 1996. Abundance estimate of the western North Pacific minke whale in sub-area 9 with notes on the results of dedicated surveys. *Rep. int. Whal. Commn* 47: 543-551.

Wada, S. 1996. Results of allozyme analysis on minke whale samples from JARPN in 1995. Paper SC/48/NP21 presented to the IWC Scientific Committee, June 1996 (unpublished). 4pp.

[1997](10)

Abe, H., Goto, M., Palsbøll, P.J. and Pastene, L.A. 1997. Preliminary microsatellite analyses of western North Pacific minke whales, *Balaenoptera acutorostrata*. Paper SC/49/NP12 presented to the IWC Scientific Committee, September 1997 (unpublished). 11pp.

*Aono, S., Tanabe, S., Fujise, Y., Kato, H. and Tatsukawa, R. 1997. Persistent organochlorines in minke whale (*Balaenoptera acutorostrata*) and their prey species from the Antarctic and the North Pacific. *Environmental Pollution* 98: 81-89.

*Goto, M. and Pastene, L.A. 1997. Population structure of western North Pacific minke whale based on an RFLP analysis of mtDNA control region. *Rep. int. Whal. Commn* 47: 531-537.

Goto, M. and Pastene, L.A. 1997. RFLP analysis of the mitochondrial DNA control region in minke whales sampled during the 1996 JARPN. Paper SC/49/NP10 presented to the IWC Scientific Committee, September 1997 (unpublished). 10pp.

*Hatanaka, H. and Miyashita, T. 1997. On the feeding migration of the Okhotsk Sea-West Pacific stock of minke whales, estimates based on length composition data. *Rep. int. Whal. Commn* 47: 557-564.

*Hatanaka, H. 1997. A short review of hypotheses on minke whale stock structure in the Northwestern part of the North Pacific. *Rep. int. Whal. Commn* 47: 553-555.

Wada, S. 1997. Results of allozyme analysis on minke whale samples from JARPN in 1996. Paper SC/49/NP14 presented to the IWC Scientific Committee, September 1997 (unpublished). 2pp.

*Araki, J., Kuramochi, T., Machida, M., Nagasawa, K., and Uchida, A. 1997. A note on the parasite fauna of the western North Pacific minke whale (*Balaenoptera acutorostrata*). *Rep. int. Whal. Commn* 47: 565-567.

Fujise, Y., Shimada, H., Zenitani, R., Goto, M., Tamura, T., Lindstrøm, U., Uchida, A., Yoshida, H., Shimamoto, K., Yuzu, S., Kasai, H., Kinoshita, T., Iwata, T. and Toyama, D. 1997. Cruise report of the Japanese Whale Research Program under a Special Permit in the North Pacific (JARPN) in 1996 with some preliminary analyses of data collected during the 1994-1996 JARPN surveys. Paper SC/49/NP8 presented to the IWC Scientific Committee, September 1997 (unpublished). 38pp.

Ishikawa, H., Yuzu, S., Shimamoto, K., Bando, T., Ohshima, K., Kasai, H., Kinoshita, T., Mizushima, Y., Iwakami, H., Nibe, T., Hosoyama, T., Kuramochi, T., Numano, K. and Miyamoto, M. 1997. Cruise report of the Japanese Whale Research Program under a Special Permit in the North Pacific (JARPN) in 1997. Paper SC/49/NP9 presented to the IWC Scientific Committee, September 1997 (unpublished). 28pp.

[1998](7)

Abe, H., Goto, M. and Pastene, L.A. 1998. Further microsatellite analysis in the western North Pacific minke whales, *Balaenoptera acutorostrata*. Paper SC/50/RMP8 presented to the IWC Scientific Committee, April 1998 (unpublished). 10pp.

Fujise, Y., Zenitani, R. and Kato, H. 1998. An examination of the W-stock hypothesis for North Pacific minke whales, with special reference to some biological parameters using data collected from JARPN surveys from 1994 to 1997. Paper SC/50/RMP12 presented to the IWC Scientific Committee, April 1998 (unpublished). 14pp.

Goto, M. and Pastene, L.A. 1998. Population structure in the North Pacific minke whale as revealed by RFLP and sequencing analyses of the mtDNA control region. Paper SC/50/RMP7 presented to the IWC Scientific Committee, April 1998 (unpublished). 15pp.

*Lindstrøm, U., Fujise, Y., Haug, T. and Tamura, T. 1998. Feeding habits of western North Pacific minke whales, *Balaenoptera acutorostrata*, as observed in July-September 1996. *Rep. int. Whal. Commn* 48:463-469.

*Pastene, L.A., Goto, M. and Kishino, H. 1998. An estimate of mixing proportion of 'J' and 'O' stocks minke whales in sub-area 11 based on mitochondrial DNA haplotype data. *Rep. int. Whal. Commn* 48: 471-474.

*Tamura, T., Fujise, Y. and Shimazaki, K. 1998. Diet of minke whales *Balaenoptera acutorostrata* in the Northwestern part of the North Pacific in summer 1994 and 1995. *Fisheries Science* 64(1): 71-76.

*Uchida, A., Kawakami, Y., Yuzu, S., Kishikawa, S., Kuramochi, T., Araki, J., Machida, M. and Nagasawa, K. 1998. Prevalence of parasites and histopathology of parasitisation in minke whales (*Balaenoptera acutorostrata*) from the western North Pacific Ocean and Southern Sea of Okhotsk. *Rep. int. Whal. Commn* 48: 475-479.

[1999](5)

Goto, M. and Pastene, L.A. 1999. Genetic population structure in the western North Pacific minke whale examined by mtDNA control region sequencing analysis. Paper SC/51/RMP8 presented to the IWC Scientific Committee, May 1999 (unpublished). 12pp.

*Martinez, I. and Pastene, L.A. 1999. RAPD-typing of Central and Eastern North Atlantic and Western North Pacific minke whales, *Balaenoptera acutorostrata*. *ICES Journal of Marine Science* 56:640-651.

*Le, T.H.L., Takahashi, S., Saeki, K., Nakatani, N., Tanabe, S., Miyazaki, N. and Fujise, Y. 1999. High percentage of butyltin residues in total tin in the livers of cetaceans from Japanese coastal waters. *Environmental Science & Technology* 33(11): 1781-1786.

Pastene, L.A., Goto, M. and Fujise Y. 1999. Review of the studies on stock identity in the minke whale *Balaenoptera acutorostrata* from the North Pacific. Paper SC/51/RMP15 presented to the IWC Scientific Committee, May 1999 (unpublished). 28pp.

Zenitani, R., Fujise, Y., Matsuoka, K., Tamura, T., Bando, T., Ichihashi, H., Shimokawa, T., Krasnenko, A.S., Taguchi F., Kinoshita, T., Mori, M., Watanabe, M., Ichinomiya, D., Nakamura, M., Sakai, K., Matsuzaka, K., Kamei, H. and Tohyama, D. 1999. Cruise report of the Japanese Whale Research Program under a Special Permit in the North Pacific in 1998. Paper SC/51/RMP7 presented to the IWC Scientific Committee, May 1999 (unpublished). 20pp.

[2000](43)

Mitani, Y., Bando, T., Takai, N. and Sakamoto, W. 2000. Diet records and stock structure of minke whales *Balaenoptera acutorostrata* around Japan examined by d13 C and d15 N analyses. Paper SC/F2K/J20 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 12pp.

Tamura, T. and Fujise, Y. 2000. Geographical and seasonal changes of prey species in the western North Pacific minke whale. Paper SC/F2K/J22 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 26pp.

Tamura, T. and Fujise, Y. 2000. Diurnal change in feeding activity in the western North Pacific minke whale. Paper SC/F2K/J23 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 16pp.

Tamura, T. and Fujise, Y. 2000. Daily and seasonal food consumption by the western North Pacific minke whale. Paper SC/F2K/J24 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 18pp.

Tamura, T. and Fujise, Y. 2000. Brief review of the studies of feeding ecology in the minke whale *Balaenoptera acutorostrata* from the western North Pacific prior to JARPN surveys. Paper SC/F2K/J31 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 6pp.

Tamura, T., Ohsumi, S. and Fujise Y. 2000. Some examinations on body fatness of the western North Pacific minke whales. Paper SC/F2K/J25 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 20pp.

Tamura, T. and Ohsumi, S. 2000. Regional assessments of prey consumption by marine cetaceans in the world. Paper SC/52/E6 presented to the IWC Scientific Committee, June 2000 (unpublished). 42pp.

Abe, H., Goto, M. and Pastene, L.A. 2000. Population structure in the western North Pacific minke whale inferred from microsatellite analysis. Paper SC/F2K/J10 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 14pp.

Fujise, Y., Hakamada, T., Aoki, M., Niimi, S., Nakata, H., Honda, K. and Tanabe, S. 2000. An attempt to identify stocks in the western North Pacific minke whale (*Balaenoptera acutorostrata*) using the accumulation levels of heavy metals and organochlorines as ecological tracers. Paper SC/F2K/J18 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 18pp.

Goto, M. and Pastene, L.A. 2000. Population structure in the western North Pacific minke whale based on RFLP and sequencing analyses of mtDNA control region, using data from the 1994-1999 JARPN surveys. Paper SC/F2K/J11 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 15pp. + Appendix 1pp.

Goto, M., Abe, H. and Pastene, L.A. 2000. Estimation of the mixing proportion of the 'J' and 'O' stocks in sub-area 11 using uni- and bi-parental genetic markers. Paper SC/F2K/J27 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 10pp. + Appendix 8pp.

Goto, M., Abe, H. and Pastene, L.A. 2000. Additional analyses of mtDNA control region sequences in the western North Pacific minke whales using JARPN samples. Paper SC/F2K/J32 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 5pp.

Goto, M., Kim, Z.G., Abe, H. and Pastene, L.A. 2000. A note on the possibility of identifying individual J stock animals from a mixed assemblage based on mitochondrial DNA analysis. Paper SC/F2K/J28 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 9pp.

Goto, M. and Pastene, L.A. 2000. Re-estimation of the mixing proportion of the 'J' and 'O' stocks using alternative stratification. Paper SC/52/RMP6 presented to the IWC Scientific Committee, June 2000 (unpublished). 9pp.

Goto, M. and Pastene, L.A. 2000. A note on additional mtDNA analysis on western North Pacific minke whale using JARPN samples. Paper SC/52/RMP7 presented to the IWC Scientific Committee, June 2000 (unpublished). 12pp.

Hakamada, T. and Fujise, Y. 2000. Preliminary examination of the heterogeneity of external measurements of minke whales in the western part of the North Pacific, using data collected during 1994-1999 JARPN surveys. Paper SC/F2K/J15 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 12pp.

Hakamada, T. and Fujise, Y. 2000. Further examination of morphological heterogeneity in North Pacific minke whales collected during the JARPN surveys. Paper SC/52/RMP16 presented to the IWC Scientific Committee, June 2000 (unpublished). 5pp.

Hatanaka, H. 2000. Comprehensive summary on W stock hypothesis of minke whale through JARPN program. Paper SC/F2K/J21 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 8pp.

Kuramochi, T., Araki, J., Uchida, A., Moriyama, N., Takeda, Y., Hayashi, N., Wakao, H., Machida, M. and Nagasawa, K. 2000. Summary of parasite and epizoot investigations during JARPN surveys 1994-1999, with reference to stock structure analysis for the western North Pacific minke whales. Paper SC/F2K/J19 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 22pp.

Martien, K.K. and Taylor, B.L. 2000. The limitations of hypothesis testing as a means of demographically delineating independent units. Paper SC/F2K/J3 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 32pp.

Matsuoka, K., Hakamada, T., Fujise, Y. and Miyashita, T. 2000. Distribution pattern of minke whales based on sighting data during the JARPN 1994-1999. Paper SC/F2K/J16 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 17pp.

Nakata, H., Tanabe, S., Niimi, S., Minh, T.B., Sakakibara, A., Fujita, K. and Fujise, Y. 2000. Population structure in minke whale from the North Pacific examined by the persistent organic pollutants as chemical tracers. Paper SC/F2K/J17 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 9pp.

Okamura, H., Zenitani, R., Hiramatsu, K. and Kato, H. 2000. Some analyses on the possibility of the existence of W-stock minke whale in sub-area 9 using the information on conception dates. Paper SC/F2K/J14 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 9pp.

Okamura, H. and Goto, M. 2000. The statistical power of the hypothesis testing for the elucidation of genetic population structure in the North Pacific minke whales using allele frequency data. Paper SC/F2K/J30 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 7pp.

Pastene, L.A., Goto, M. and Fujise, Y. 2000. Review of the studies on stock identity in the minke whale *Balaenoptera acutorostrata* from the North Pacific. Paper SC/F2K/J1 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 22pp. + Appendix 4pp.

Punt, A.E., Butterworth, D.S. and Wada, S. 2000. On the use of allele frequency data within a Bayesian framework to evaluate the relative probabilities of alternative stock structure hypotheses for the North Pacific minke whales. Paper SC/F2K/J2 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 12pp.

*Punt, A.E., Butterworth, D.S. and Wada, S. 2000. On the use of allele frequency data within a Bayesian framework: evaluation of relative probabilities of alternative stock structure hypotheses for North Pacific minke whales. *J. Cetacean Res. Manage.* 2(2): 151-158.

Taylor, B.L., Chivers, S.J. and Dizon, A.E. 2000. Estimating the statistical power to detect population subdivision using mitochondrial DNA. Paper SC/F2K/J4 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 13pp.

Taylor, B.L. and Chivers, S.J. 2000. Evaluating the performance of different statistics to detect population subdivision. Paper SC/F2K/J5 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 10pp.

- Taylor, B.L. 2000. Genetic population structure in the western North Pacific minke whale: an analysis of mtDNA data. Paper SC/F2K/J6 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 4pp.
- Taylor, B.L. and Chivers, S.J. 2000. An example of the calculation of the statistical power to detect population sub-division in North Pacific minke whales. Paper SC/F2K/J7 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 12pp.
- Taylor, L.B. 2000. Relating stock depletion to dispersal: The western North Pacific minke whale example. Paper SC/52/SD10 presented to the IWC Scientific Committee, June 2000 (unpublished). 5pp.
- Wada, S. 2000. Stock structure of the western North Pacific minke whales based on the allozyme analyses. Paper SC/F2K/J12 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 4pp.
- Zenitani, R., Kato, H and Fujise, Y. 2000. Some analyses on biological parameters of western North Pacific minke whales, from a view point of stock identification. Paper SC/F2K/J13 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 18pp.
- Fujise, Y. 2000. Outline of the research activities of the Japanese Whale Research Program under Special Permit in the North Pacific (JARPN) from 1994 to 1999. Paper SC/F2K/J8 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 30pp.
- Fujise, Y., Zenitani, R., Tamura, T., Bando, T., Ohtani, S., Takeda, S., Kitajima, A., Kimura, T., Masaki, T. and Tohyama, D. 2000. Cruise Report of the Japanese Whale Research Program under Special Permit in the North Pacific (JARPN) in 1999. Paper SC/F2K/J9 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 32pp.
- Goto, M. and Pastene, L.A. 2000. Results of molecular genetic analyses of whale products collected from the Japanese retail markets in 1996 and 1999/2000 surveys. Paper SC/52/SD7 presented to the IWC Scientific Committee, June 2000 (unpublished). 21pp.+ Appendix 11pp.
- Nishiwaki, S. 2000. Performance of biopsy skin sampling for minke whales during the JARPN and JARPA surveys using ICR air gun. Paper SC/52/O5 presented to the IWC Scientific Committee, June 2000 (unpublished). 8pp.
- Okamura, H., Matsuoka, K., Hakamada, T., Okazaki, M. and Miyashita, T. 2000. The GAM-based analyses on the density index of minke whales in the JARPN survey. Paper SC/52/RMP3 presented to the IWC Scientific Committee, June 2000 (unpublished). 10pp.
- Ohsumi, S., Hatanaka, H. and Fujise, Y. 2000. Review on the objectives of Japanese Whale Research Program under Special Permit in the north-western North Pacific (JARPN). Paper SC/F2K/J29 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 7pp.
- *Uchida, A. and Araki, J. 2000. The ectoparasites and endoparasites in the minke whale, *Balaenoptera acutorostrata* from the western North Pacific Ocean. *J. Jpn. Vet. Med. Assoc.* 53(2): 85-88 (in Japanese).
- Watanabe, T., Matsuoka, K., Tamura, T. and Fujise Y. 2000. Oceanographic conditions of the western subarctic gyre region based on oceanographic data during the JARPN 1994-1999. Paper SC/F2K/J26 presented to the Workshop to Review the Japanese Whale Research Programme under Special Permit for North Pacific Minke Whales (JARPN), February 2000 (unpublished). 18pp.
- Zenitani, R., Fujise, Y., Okamura, H. and Kato, H. 2000. Further examination of the distribution of western North Pacific minke whales applying a logistic regression analysis for reproductive data collected by the JARPN surveys. Paper SC/52/RMP17 presented to the IWC Scientific Committee, June 2000 (unpublished). 8pp.

[2001](7)

Cui, G., Punt, A.E., Pastene, L.A. and Goto, M. 2001. A bayesian approach to addressing stock structure questions using mtDNA data, with an illustrative application to the North Pacific minke whales. Paper SC/53/RMP1 presented to the IWC Scientific Committee, July 2001 (unpublished). 19pp.

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Appendix 2

Protocol for access to samples/data from the Institute of Cetacean Research (ICR), Tokyo, Japan under Procedure B (JCRM 6 (suppl.): in press

INTRODUCTION

This protocol has been developed in the context of Procedure B of the IWC Scientific Committee's rules for data availability adopted at the 55th Annual Meeting (*Journal of Cetacean Research and Management* 6 (suppl.): in press). Procedure B applies to data required for analyses deemed important in providing advice to the Committee other than catch limits. Conditions for data recipients (repeated below) as specified in the rules for data availability are applicable.

It was agreed that the Committee shall specify the nature of the work and the data required during the meeting at which the recommendation is made, to the fullest extent possible in the time available at the meeting and in accord with the published protocol. Requests to the ICR for data under Procedure B of the Scientific Committee's rules for data availability shall be submitted by the Data Availability Group assisted by a nominated member of ICR.

It was also agreed that if the correct process is followed, the data owners will normally approve the applications within a 'specified time period'; in this case ICR agrees that it will respond within XXX weeks of receiving an application.

FORMAT OF THE APPLICATION

The format for the application is based on the revised application for catch-at-age analyses agreed by all members of the Scientific Committee at the end of the Scientific Committee meeting in 2003 (Annex G, Appendix 11).

- (a) *Title* of the proposal, giving the broad subject of the proposed analyses.
- (b) *Investigators*: the full name and affiliation of the principal investigator(s) and co-investigator(s) should be provided. This should include at least one scientist from ICR.
- (c) *Objectives and rationale of the study* as specified by the by the Scientific Committee along with the appropriate reference to the report(s) of the Scientific Committee. This will include the reasons why the proposed analyses are important and how they fit into previous work.
- (d) *Data to be used* will include a general description of all data to be used as well as data held by ICR. For the ICR-held data, the precise requirements will be given, including the level of disaggregation.
- (e) *Description of the methods* likely to be used. The level of detail must be in accordance with the level of novelty of the proposed methods and the particular research questions they will address. References to similar analyses should be included where available.
- (f) *Schedule of the work*: this should include estimated times for the various analyses to be carried out and an indication of which investigators will collaborate on individual components. If the project is a long-term project, annual progress reports will be required by ICR and the Scientific Committee.
- (g) *Output of the research*: this will follow the rules for publication agreed at the Scientific Committee meeting and given below. ICR may consider requests for less stringent conditions (e.g. presentations at non-IWC scientific meetings, publications, etc.). Such requests should be detailed here.

CONSIDERATION OF THE PROPOSAL

If an application has been approved by the whole Scientific Committee at an annual meeting, it will normally be approved by ICR. However, the final decision will always remain the prerogative of ICR. ICR may request reviews by an internal review group and/or external experts. The following factors will be taken in to account by ICR when considering applications.

- (a) *Priority*: highest priority for analysis/research of samples/data produced by Japan's Whale Research Programs under Special Permit, will be for the scientists that collected and obtained the data in any particular field.
- (b) *Suitability of the requested data in the context of the proposed methods and the objectives of the research*.

(c) Level of co-operation with ICR scientists.

The response to an application for data will be communicated by the ICR's Director General to the Data Availability Group and may include requests for further information. If the research proposal is accepted, ICR will nominate a scientist, (normally one of the co-investigators) who shall be responsible for making the necessary arrangements to provide the required samples/data.

Agreed Scientific Committee conditions for data recipients

Applications deemed suitable under Procedure A or Procedure B below are granted under the following conditions:

- (1) Data shall not be transmitted to third parties.
- (2) Papers may only be submitted to a Committee meeting in accordance with the time restrictions given below. Such papers must not include the raw data or the data in a form in more detail than is necessary to understand the analysis.
- (3) Papers must carry a restriction on citation except in the context of IWC meetings.
- (4) Data owners are offered co-authorship.
- (5) Publication rights remain strictly with the data owner.
- (6) Data shall be returned, to the Secretariat or the data owner as appropriate, immediately after the meeting at which the paper is submitted and any copies destroyed, unless an extension is granted.
- (7) Data requesters sign a form agreeing to the above conditions. Such forms will be held by the data owner and the Secretariat. In the case of Procedure B, the Data Availability Group will sign the agreement on the Committee's behalf and ensure that the conditions of any agreement are met by any individual scientists involved in the analysis.
- (8) In the event of a breach of the conditions in (6), serious sanctions [to be determined] will apply.