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Contribution of JARPA to the scientific knowledge and management of whales

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INTRODUCTION

Some members of the IWC/SC have argued that JARPA has made little contribution to the biological and ecological knowledge of whales and that the data collected by this research program have been of limited use for management of this group of animals. Such arguments are based on an alleged low number of papers, derived from JARPA, published in peer reviewed journals. I do not consider the criticism as objective as many of such members have openly stated that they are opposed to the lethal component of the program for ethical reasons.

Scientific contribution can be expressed in different forms: publications in peer reviewed journals, oral presentations at scientific symposiums or contribution to the annual meetings of the IWC/SC. Here I made a brief review of the scientific research of the JARPA and conclude that its scientific contribution has been considerable, not only for issues related to management but also for the general knowledge of whales.

RESULTS

Documents presented at scientific meetings and symposium

SC documents

Table I shows the number of papers based on JARPA sample/data presented to annual or intersessional meetings of the IWC/SC for the period 1987-2004. For that period a total of 163 documents have been prepared and presented at SC meetings with an annual average of 9 documents. Several of these documents have been prepared by or in collaboration with foreign colleagues. Documents presented at annual meetings have been presented and discussed mainly at several SC subcommittees including RMP, IA, SH and SP, all of them dealing with assessment and management of whale stocks.

The highest number is for year 1997, year in which the IWC/SC conducted a midterm review of the JARPA (IWC, 1998). A total of 47 scientists involving ten countries participated in this review. Some few quotations from the 1997 mid-term review meeting report are listed above, which suggest recognition by scientists of the important contribution of this program for the management of minke whale:

“The information produced by JARPA (Japan’s Antarctic Research Program) has set the stage for answering many questions about long term population changes regarding minke whales in Antarctic Areas IV and V.”

“...JARPA has already made a major contribution to understanding of certain biological parameters.”

“The Committee noted that JARPA is at the half-way point and has provided substantial improvement in the understanding of stock structure.”

“...there was general agreement that the stock structure data were of value to management.”

“...the meeting noted that there were non-lethal methods available...but that logistics and the abundance of minke whales in the relevant Area probably precluded their successful application.”

Regarding contribution of the JARPA to the work of the SC it should be pointed out that several scientists have adopted a double position with regard data originated in this research program, criticizing the proposals on one hand and praising/requesting data derived from this program on the other hand. Perhaps the best example of this is the research on Virtual Population Analysis (VPA) on Antarctic minke whales. Age and reproductive data from Antarctic minke whale obtained from JARPA are essential to study the status and trends of the populations and such data have been requested by and provided to a group of international scientists to conduct a VPA to investigate status and trends of minke whales in the Antarctic (IWC, 2004 pp 22).

Oral presentations at scientific symposium

The numbers of oral presentations made at scientific meetings and symposium in the period 1987-2004 is 143. These contributions have been not only in the field of whale management but also in the field of natural sciences. Details on title and contents of such presentations can be found in the annual progress report of the ICR.

Research results published in peer-reviewed journal

One of the criticisms that we have reconsidered deals with the number of publication derived from the RPSP. The number of publications in peer-reviewed journals is 126 (Table 1 and appendix). Considering the bias in the review process for publishing research results (e.g. several journals have a policy of not accepting papers involving lethal whale research) and the language problem (many Japanese scientists simply cannot meet the level of English required for scientific publications), I consider that the number of scientific communications derived from JARPA is good, although there is some room to increase the number of publications in peer-reviewed journals despite the difficulties mentioned above.

CONCLUSIONS

Data shown in this paper demonstrate that the scientific contribution of the JARPA through scientific meetings and peer reviewed publications is high. Therefore the criticism by some SC members that JARPA has made little contribution to the knowledge of whales and management is unjustified.

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Table 1: Scientific contribution of the JARPA

Year	W C Docs*	Oral Presentation	Publications
1987	2	0	0
1988	1	2	0
1989	4	6	3
1990	8	5	8
1991	6	5	10
1992	6	6	4
1993	6	7	6
1994	11	7	3
1995	11	11	4
1996	8	7	7
1997	29	4	11
1998	6	2	12
1999	14	6	4
2000	16	10	5
2001	8	15	9
2002	9	14	23
2003	14	22	7
2004	4	14	10

* Include annual and intersessional meeting of the IWC/SC.

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