## Introduction

This supplement to Volume 2 of the *Journal of Cetacean Research and Management* contains the report of the 1999 Annual Meeting of the Scientific Committee of the International Whaling Commission (IWC). The meeting was held in Grenada, West Indies, from 3-15 May 1999 and was attended by over 138 participants (including 33 invited participants); 23 member nations were represented. In addition, it contains the report of the SOWER (Southern Ocean Whale and Ecosystem Research) 2000 Workshop held from 1-6 March 1999 in Edinburgh, Scotland, which concentrated on co-operation with CCAMLR (Commission for the Conservation of Antarctic Marine Living Resources) and Southern Ocean GLOBEC (Global Ocean Ecosystems Dynamics Programme) in the fields of climate change and habitat research in the Southern Ocean.

Several major topic areas were considered at the Annual Meeting in Grenada.

Discussion of the Revised Management Procedure for baleen whales (RMP) centred on: consideration of the software used; consideration of general issues related to abundance estimation and stock identity; preparation for implementation of the RMP for North Pacific minke whales, western North Pacific Bryde's whales and North Atlantic minke whales.

High priority has been placed on the development of a management procedure for aboriginal subsistence whaling (AWMP). The AWMP will comprise both generic and case-specific components and the Committee developed a proposed timetable for the development process. It is envisaged that the components relating to the bowhead whale and the gray whale will be completed first.

Current aboriginal subsistence whaling operations are reviewed annually and this year the review included the Bering-Chukchi-Beaufort Seas bowhead whales, the eastern North Pacific stock of gray whales and the humpback whales off St Vincent and The Grenadines. Work to develop a research programme for fin and minke whales off Greenland continued.

After a number of years of analyses of Southern Hemisphere minke whale data, the Committee agreed that parameters of potential importance for management can be estimated from age data, although some further work remains to be carried out, e.g. with respect to robustness. Work on the differentiation of blue whale sub-species continued as part of the SOWER programme south of 60°S. Preparations for a major review of the abundance estimates of minke whales in the Antarctic are underway.

The Committee continued its consideration of the status of North Atlantic right whales and a Workshop was held in October 1999. The report of that workshop will be reviewed by the Scientific Committee at its 2000 meeting. Similarly, work on the assessment of Southern Hemisphere humpback whales continues.

In recent years, the Committee has paid increasing attention to the relationship between cetaceans and their environment and developed two major initiatives, the SOWER 2000 programme referred to above and the POLLUTION 2000+ programme (see *Journal of Cetacean Research and Management (special issue 1) – Chemical Pollutants and Cetaceans*).

The special small cetacean topics considered in 1999 were the status of white whales and narwhals, the use of acoustic devices to reduce the incidental catch of small cetaceans in fishing gear and the results of a joint IWC/ASCOBANS working group on the status of harbour porpoises.

Other matters considered by the Scientific Committee included the review of scientific permits, consideration of aspects of whale sanctuaries, examination of scientific aspects of whalewatching (especially assessing short- and long-term effects on cetaceans) and research needs and priorities for future years.

G.P. DONOVAN Editor

## **Supplement Contents**

This supplement to the Journal contains the Report of the Scientific Committee from its Annual Meeting held from 3-15 May 1999 in Grenada and the Report of the SOWER 2000 Workshop held from 1-6 March 1999 in Edinburgh.

| PLENARY REPORT*   | 1   |
|---|-----|
| Annex A: List of Participants   | 67  |
| Annex B: Agenda   | 68  |
| Annex C: List of Documents  | 73  |
| Annex D: Report of the Sub-Committee on the Revised Management Procedure  | 79  |
| Annex E: Report of the Standing Working Group on the Development of an Aboriginal Subsistence Whaling  Management Procedure             | 125 |
| Annex F: Report of the Sub-Committee on Aboriginal Subsistence Whaling  | 155 |
| Annex G: Report of the Sub-Committee on the Comprehensive Assessment of Other Whale Stocks  | 167 |
| Annex H: Report of the Standing Working Group on Environmental Concerns   | 209 |
| Annex I: Report of the Standing Sub-Committee on Small Cetaceans  | 235 |
| Annex J: Report of the Sub-Committee on Whalewatching   | 265 |
| Annex K: Summary of Information from Progress Reports   | 273 |
| Annex L: Report of the Working Group on IWC-DESS  | 287 |
| Annex M: Report of the Working Group on Stock Definition  | 290 |
| Annex N: Report of the ad hoc Working Group on a Greenlandic Research Programme   | 295 |
| Annex O: Report of the IWC-ASCOBANS Working Group on Harbour Porpoises  | 297 |
| Annex P: Area and Period for the 1999 JARPN Survey  | 306 |
| Annex Q: Terms of Reference for Review of the Japanese Whale Research Programme under Special Permit for No Pacific minke whales: JARPN |     |
| Annex R: Intersessional Review Group and Ad Hoc Working Group comments on Research Proposals  | 311 |
| Annex S: Proposed Revised Rules of Procedure of the Scientific Committee  | 313 |
| Annex T: Minority Statements  | 317 |
| Annex U: E-mail Groups (with Current Membership)  | 318 |
| REPORT OF THE SOWER 2000 WORKSHOP   | 319 |
|   |     |

<sup>\*</sup>Detailed contents for the Plenary section (pp. 1-65) are given overleaf.

## PLENARY SECTION: CONTENTS

|  | 4. Introductory items  |   |
|--|--|---|
|  | Cooperation with other organisations   |   |
| 6.   | Comprehensive Assessment of Whale Stocks/Revised Management Procedure (CA/RMP) – General issues  |   |
|  | 6.1 Completion of <i>CLA</i> program and tuning – report on progress   |   |
|  | 6.2 Additional variance – report on progress   |   |
|  | 6.4 Stock identity   |   |
|  | 6.5 Effects of uncertainty in future catches   |   |
|  | 6.6 Work plan  | ٥و  |
| 7  | CA/RMP – Preparations for implementation   | o<br>Q  |
| /.   | 7.1 North Pacific minke whales   | ٥و  |
|  | 7.1 North Facific Bryde's whales   | 10  |
|  | 7.2 Western Portur Facility Strates  |   |
|  | 7.4 Work plan  |   |
| Q  | Aboriginal Subsistence Whaling Management Procedure (AWMP)   | 15  |
| о.   | 8.1 Likely form of the AWMP  | 15  |
|  | 8.2 General issues relating to trials  |   |
|  | 8.3 Review of simulation framework   | 16  |
|  | 8.4 Facilitating AWMP comparison and tuning  |   |
|  | 8.5 Description of potential procedures  | 17  |
|  | 8.6 Trials   |   |
|  | 8.7 Planning for future selection of <i>SLA</i> s  |   |
|  | 8.8 Dialogue with Commission and hunters   |   |
|  | 8.9 Work plan (including computing needs and financial implications)   |   |
| g  | Aboriginal subsistence whaling stock assessments   | 21  |
| ٧.   | 9.1 Annual review of catch limits  |   |
|  | 9.2 Bowhead whales other than the Bering-Chukchi-Beaufort Seas stock   | 21<br>24  |
|  | 9.3 Western North Pacific stock of gray whales   |   |
|  | 9.4 Long and short term priorities   | 25  |
|  | Comprehensive Assessment of whale stocks   |   |
|  | 10.1 Southern Hemisphere minke whales  |   |
|  | 10.2 Southern Hemisphere blue whales   | .28   |
|  | 10.3 North Atlantic right whales   |   |
|  | 10.4 Southern Hemisphere humpback whales   | .30   |
|  | 10.5 Other stocks  | 32  |
|  | 10.6 Southern Ocean Whale and Ecosystem Research (SOWER)   |   |
|  | 10.7 Other issues.   |   |
|  | 10.8 Work plan   |   |
| 11.  | Environmental concerns.  |   |
|  | 11.1 Pollution and contaminant issues  | .34   |
|  | 11.2 Climate change and habitat  |   |
|  | 11.3 Arctic issues   | .38   |
|  | 11.4 Other concerns  |   |
|  | 11.5 Work plan   |   |
| 12.  | Small cetaceans  |   |
|  | 12.1 Status of white whales  | .40   |
|  | 12.2 Status of narwhals  |   |
|  | 12.3 Bycatch mitigation - acoustic devices   | 42  |
|  | 12.4 Review of progress of the IWC/ASCOBANS Joint Harbour Porpoise Working Group   | .42   |
|  |  | .42<br>.46  |
|  |  | .42<br>.46<br>.49   |
|  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49  |
|  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49  |
|  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.49   |
| 13.  | <ul> <li>12.5 Review of progress of the vaquita recovery programme.</li> <li>12.6 Review of other presented information on small cetaceans</li> <li>12.7 Takes of small cetaceans in 1998</li> </ul> | .42<br>.46<br>.49<br>.49<br>.49   |
| 13.  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50  |
| 13.  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50  |
| 13.  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51   |
| 13.  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51   |
| 13.  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52   |
| 13.  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52   |
| 13.  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53  |
| 13.  | 12.5 Review of progress of the vaquita recovery programme.  12.6 Review of other presented information on small cetaceans.  12.7 Takes of small cetaceans in 1998                                    | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53  |
|  | 12.5 Review of progress of the vaquita recovery programme.  12.6 Review of other presented information on small cetaceans.  12.7 Takes of small cetaceans in 1998                                    | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53<br>.53   |
|  | 12.5 Review of progress of the vaquita recovery programme.  12.6 Review of other presented information on small cetaceans.  12.7 Takes of small cetaceans in 1998                                    | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53<br>.53<br>.54  |
|  | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53<br>.53<br>.54<br>.54   |
|  | 12.5 Review of progress of the vaquita recovery programme.  12.6 Review of other presented information on small cetaceans.  12.7 Takes of small cetaceans in 1998                                    | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53<br>.53<br>.54<br>.54   |
| 14.<br>15.   | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53<br>.54<br>.54<br>.54   |
| 14.<br>15.   | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53<br>.54<br>.54<br>.54   |
| 14.<br>15.<br>16.<br>17.   | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53<br>.54<br>.54<br>.54<br>.55<br>.57                                    |
| 14.<br>15.<br>16.<br>17.   | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.49<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53<br>.54<br>.54<br>.54<br>.55<br>.57                                    |
| 14.<br>15.<br>16.<br>17.<br>18.                                    | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.51<br>.51<br>.51<br>.52<br>.53<br>.53<br>.54<br>.54<br>.54<br>.55<br>.57<br>.58               |
| 14.<br>15.<br>16.<br>17.<br>18.<br>19.<br>20.                      | 12.5 Review of progress of the vaquita recovery programme.  12.6 Review of other presented information on small cetaceans  12.7 Takes of small cetaceans in 1998                                     | .42<br>.46<br>.49<br>.50<br>.50<br>.51<br>.51<br>.52<br>.53<br>.53<br>.54<br>.54<br>.54<br>.55<br>.58<br>.58<br>.60<br>.61        |
| 14.<br>15.<br>16.<br>17.<br>18.<br>19.<br>20.<br>21                | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.50<br>.51<br>.51<br>.51<br>.52<br>.53<br>.53<br>.54<br>.54<br>.54<br>.55<br>.58<br>.60<br>.61               |
| 14.<br>15.<br>16.<br>17.<br>18.<br>19.<br>20.<br>21.<br>22.        | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.51<br>.51<br>.51<br>.52<br>.53<br>.53<br>.54<br>.54<br>.55<br>.58<br>.58<br>.60<br>.61<br>.63 |
| 14.<br>15.<br>16.<br>17.<br>18.<br>19.<br>20.<br>21.<br>22.<br>23. | 12.5 Review of progress of the vaquita recovery programme  | .42<br>.46<br>.49<br>.49<br>.50<br>.51<br>.51<br>.51<br>.52<br>.53<br>.53<br>.54<br>.54<br>.55<br>.58<br>.60<br>.61<br>.63<br>.63 |