

Cetacean research in New Zealand 1997-2000

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ABSTRACT

This report compiles annual reports of cetacean (i.e. whales and dolphins) research undertaken in New Zealand over the period 1997-2000. It summarises research by a wide range of researchers including Government, University and non-governmental agencies and individuals in New Zealand. Information is presented on species studied, strandings, research projects undertaken, samples collected and references to the publications resulting from research. Data of 26 species, from 9 different institutions/agencies and 66 researchers are included. Although these reports are comprehensive for work reported to Government each year, they do not include all cetacean research currently carried out in New Zealand.

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1. Overview

The International Whaling Commission (IWC) is the international agency responsible for the ‘conservation of whale stocks and the orderly development of the whaling industry’ and has approximately 40 member nations including New Zealand (ICRW 1946). New Zealand has been a member of the IWC since its inception in 1946 (Friedheim 2001). One of the obligations of member nations is the provision of a National Progress Report on cetacean research annually to the IWC. Such reports include details such as the number and location of cetaceans taken commercially or incidentally in fishing operations, numbers of stranded cetaceans, and status of ongoing research projects. One of the original aims of these reports was to provide data on the commercial catch of large whales for management of whaling. Over time, National Progress Reports have been modified to include the reporting of additional information such as levels of bycatch and data on dolphins. Until 1997, National Progress Reports were published in their entirety in IWC volumes; since then only a small summary of each full report is published by IWC.

The National Progress Reports have been compiled annually by a Government official based on reports from researchers. Although a considerable amount of effort has been made to contact *all* researchers who have undertaken cetacean research in New Zealand, and encourage them to provide details of their research, this has not always been completely successful. Therefore, the reports presented here cover most but not all work undertaken in New Zealand. Only a small proportion of the active cetacean research in New Zealand has not been reported to the Government and hence has not been included in this document.

The report includes data on cetacean research from 26 species over the period 1997 to 2000. It also covers work from 9 different institutions/agencies and lists studies by 66 researchers.

Compiling and publishing these reports aims to make the information accessible and useful as a tool in the management and protection of cetaceans in New Zealand. These reports thus provide a useful resource for identifying New Zealand-based research projects and for identifying researchers who are working on species or projects.

2. Format of the reports

The format of these reports follows guidelines for National Progress Reports set out by the IWC and as such reflects the information requirements of the IWC (e.g. IWC 1998). The IWC reports from 1997 to 2000 have been included in this publication as appendices so that the formatting remains the same as previously published reports in IWC volumes; therefore they are directly comparable with previous National Progress Reports published in IWC volumes.

Each National Progress Report covers two separate reporting periods. All statistical data (e.g. bycatch) is provided for a calendar year from January 1 to December 31. This is to ensure comparability between reports by year and by nation. In addition, any other data or details of research are provided for the year from April 1 to March 31. This is partly a result of IWC meetings generally being held in May and also allows for the report to span the full summer season in the Southern Hemisphere. For example, the report for the year 2000 provides statistical data from 1 January to 31 December 2000 and other data from 1 April 2000 to 31 March 2001.

The National Progress Reports are divided into 11 categories. A brief description of each category and what it reports is listed below.

1. Species and stocks studied

Lists the species which have been studied and in which locations.

2. Sightings data

2.1 Field work

2.1.1 Systematic

2.1.2 Opportunistic, platforms of opportunity

2.2 Analyses/development of techniques

A broad category that reports on surveys and sightings and also on new techniques that have been developed.

3. Marking data

3.1 Field work

3.1.1 Natural marking data

3.1.2. Artificial marking data

3.1.3 Telemetry data

All projects where individual animals have been identified from either natural or human-made marks (including identification catalogues) or information obtained from telemetry studies (e.g. satellite tracking).

4. Tissue/biological samples collected

4.1 Biopsy samples

4.2 Samples from directed catches or bycatches

4.3 Samples from stranded animals

4.4 Analyses/development of techniques

Samples collected from dead or free-ranging individuals and also any new techniques which have been developed.

5. Pollution studies

Summary of any pollution studies (e.g. entanglement, PCBs in blubber).

6. Statistics for large cetaceans

6.1 Direct catches (commercial, aboriginal and scientific permits) for the calendar year

6.2 Other non-natural mortality for the calendar year

6.3 Earlier years' statistics

Totals of the number of large cetaceans (e.g. whales) incidentally or deliberately caught in fishing or other operations.

Section 6.3 refers to any amendments that need to be made to data incorrectly reported in previous years.

7. Statistics for small cetaceans

7.1 For the calendar year

7.2 Earlier years' statistics

Totals of the number of small cetaceans (e.g. dolphins) incidentally or deliberately in fishing or other operations.

Section 7.2 refers to any amendments that need to be made to data incorrectly reported in previous years.

8. Strandings

Details of the number and species of stranded cetaceans.

9. Other studies and analyses

Any cetacean research which does not fit into any of the other categories.

10. Literature cited

Papers or reports cited in the report.

11. Publications

11.1 Published or 'In Press' papers only

11.2 Unpublished literature

Papers or reports which have been produced on cetacean research over preceding year.

3. Species referred to in National Progress Reports

The 26 species of cetaceans referred to in the reports are listed in Table 1.

TABLE 1 SUMMARY OF CETACEAN SPECIES MENTIONED IN NATIONAL PROGRESS REPORTS 1997-2000.

COMMON NAME	SCIENTIFIC NAME
Andrews beaked whale	<i>Mesoplodon bowdoini</i>
Arnoux's beaked whale	<i>Berardius arnuxii</i>
Beaked whales	Family Ziphiidae
Blainville's beaked whale	<i>Mesoplodon densirostris</i>
Bottlenose dolphins	<i>Tursiops truncatus</i>
Bryde's whale	<i>Balaenoptera edeni</i>
Common dolphin	<i>Delphinus delphis</i>
Cuviers beaked whale	<i>Ziphius cavirostris</i>
Dusky dolphin	<i>Lagenorhynchus obscurus</i>
Dwarf sperm whale	<i>Kogia simus</i>
False killer whale	<i>Pseudorca crassidens</i>
Gray's beaked whale	<i>Mesoplodon grayi</i>
Hector's dolphin	<i>Cephalorynchus hectori</i>
Hectors beaked whale	<i>Mesoplodon hectori</i>
Humpback whale	<i>Megaptera novaeangliae</i>
Killer whale	<i>Orcinus orca</i>
Long-finned pilot whale	<i>Globicephala melas</i>
Minke whale	<i>Balaenoptera acutorostrata</i>
Pygmy right whale	<i>Caperea marginata</i>
Pygmy sperm whale	<i>Kogia breviceps</i>
Sei whale	<i>Balaenoptera borealis</i>
Southern right whale	<i>Eubalaena australis</i>
Sperm whale	<i>Physeter macrocephalus</i>
Straptoothed whale	<i>Mesoplodon layardi</i>
Striped dolphin	<i>Stenella caeruleoalba</i>
Tasman's beaked whale	<i>Tasmacetus shepherdi</i>

4. Contributors to National Progress Reports

Table 2 lists institutions and researchers that have provided information for the National Progress Report over the period 1997–2000. Contact addresses have been provided where possible so that researchers can be contacted directly regarding their work. Not all addresses will be current for all researchers (particularly students) but, where possible, a staff member or supervisor at the institution is identified by (S) as a potential contact point.

TABLE 2 LIST OF RESEARCHERS AND INSTITUTIONS MENTIONED IN THE NATIONAL PROGRESS REPORTS 1997–2000.

INSTITUTION	RESEARCHER	CONTACT ADDRESS
Auckland University	S. Baker (S) G. Lento M. Dalebout F. Pichler N. Patenaude R. Constantine I. Visser B. Congdon L. Medrano R. Robles-Saavedra H. Ng K. Russel C. Olavarria T. O'Callaghan S. Plon	School of Biological Sciences, University of Auckland, Private Bag, Symonds St, Auckland
Department of Conservation	S. Childerhouse A. Baker M. Donoghue	Dept of Conservation, PO Box 10–420, Wellington
	A. Hutt	Dept of Conservation, PO Box 101, Duvauchelle
Institute of Environmental Science and Research	P. Jones H. Reid	ESR, PO Box 50348, Porirua
Independent researchers	C. Jowett	not known
	M. Cawthorn	Cawthorn and Associates, 53 Motuhara Rd, Plimmerton
	B. Todd	Project Tohora, PO Box 249, Nelson
	P. Turnbull	not known
Massey University	S. Haslett P. Duignan (S) G. Barnes P. Madie N. Gibbs	IVABS, Massey University, Private Bag, Palmerston North
	M. Orams (S) D. Neuman	Massey University, Private Bag, Albany
Te Papa/Museum of New Zealand	A. van Helden	Te Papa, PO Box 467, Wellington
New England Aquarium	G. Stone C. Nichols	New England Aquarium, Central Wharf, Boston, MA 02110-3399, USA
Otago University	S. Dawson (S) L. Slooten (S) D. Fletcher (S) S. Burkhart S. Brager A. Chong	Environmental Science/ Marine Science, Otago University, PO Box 56, Dunedin

TABLE 2 (continued)

INSTITUTION	RESEARCHER	CONTACT ADDRESS
Otago University (continued)	L. Bejder K. Schneider N. Jaquet L. Douglas K. Barr S. DuFresne C. Richter P. Haase Q. Rhineland E. Secchi D. Clement M. Gibbs E. Martinez D. Lusseau O. Boisseau W. Rayment A-M. Martenson F. Lariviere	
Texas A&M University	C. Gates A. Harlin T. Markowitz B. Wursig (S) S. Yin	Dept of Marine Biology, Texas A&M University, Galveston, TX 77553-1675, USA
US NMFS	B. Taylor K. Fear	Southwest Fisheries Science Centre, PO Box 271 - La Jolla, CA 92038-0271, USA

5. Acknowledgements

This project would not have been possible without the support of researchers who have provided summaries of their work over the years. The high quality and quantity of work reflected in this document is a tribute to the researchers. I thank all who made the effort to contribute and hope we will maintain this high standard in the future. Thanks to J. Jasperse and R. Munro for production of this document.

6. References

- Friedheim, R.L. (Ed.) 2001. Towards a sustainable whaling regime. University of Washington Press, USA. P. 382.
- ICRW 1946. International Convention for the Regulation of Whaling. 2 December 1946, 62 Stat.1716, 161 U.N.T.S.
- IWC 1998. Forty-Eighth Report of the International Whaling Commission. IWC, Cambridge, UK. P. 579.

Appendix 1

NEW ZEALAND PROGRESS REPORT ON
CETACEAN RESEARCH, APRIL 1997 TO
APRIL 1998, WITH STATISTICAL DATA
FOR THE CALENDAR YEAR 1997