

ICELAND. PROGRESS REPORT ON CETACEAN RESEARCH, APRIL 2002 TO MARCH 2003 WITH STATISTICAL DATA FOR THE CALENDAR YEAR 2002.

COMPILED BY

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This report summarises information obtained from: the Marine Research Institute (MRI), Reykjavík, Iceland and cooperating institutes.

1. Species and stocks studied

Common name	Scientific name	Area/stock(s)	Items referred to
Blue whale	<i>Balaenoptera musculus</i>	Icelandic and adjacent waters	2.2; 3.1.1; 9;
Fin whale	<i>Balaenoptera physalus</i>	Icelandic and adjacent waters	2.2; 5;
Sei whale	<i>Balaenoptera borealis</i>	Icelandic and adjacent waters	5;
Minke whale	<i>Balaenoptera acutorostrata</i>	Icelandic and adjacent waters	2.2.1; 3.1.2; 3.2; 4.2; 4.3; 6.2
Humpback whale	<i>Megaptera novaeangliae</i>	Icelandic and adjacent waters	2.2; 3.1.1; 4.1; 4.2; 4.3; 6.2; 9
Sperm whale	<i>Physeter macrocephalus</i>	Icelandic and adjacent waters	2.2; 4.3
Northern Bottlenose	<i>Hyperoodon ampullatus</i>	Icelandic and adjacent waters	2.2; 4.3; 9
Long-finned pilot whale	<i>Globicephala melas</i>	Icelandic and adjacent waters	2.2; 4.3
Killer whale	<i>Orcinus orca</i>	Icelandic and adjacent waters	3.1.1; 9;
Atlantic white-sided dolphins	<i>Lagenorhynchus acutus</i>	Icelandic and adjacent waters	2.2
White-beaked dolphins	<i>Lagenorhynchus albirostris</i>	Icelandic and adjacent waters	2.2; 5; 9;
Harbour porpoise	<i>Phocoena phocoena</i>	Icelandic waters	5

2. Sightings data

2.1 Field work

2.1.1 SYSTEMATIC

No systematic cetacean sightings surveys were conducted in Icelandic waters in 2002.

2.1.2 OPPORTUNISTIC, PLATFORMS OF OPPORTUNITY

MRI and several whale watching companies co-operated in reporting and compiling sightings data during whale watching excursions. Occurrence of cetaceans was registered during MRI's photo-id and biopsy surveys.

2.2 Analyses/development of techniques

Analysis of data collected during the NASS-2001 sightings survey is being coordinated through a special working group under the Scientific Committee of NAMMCO. Estimates of abundance and/or trends of fin, blue, minke, humpback, long-finned pilot, northern bottlenose, and sperm whales as well as *Lagenorhynchus* dolphins have been discussed by the working group. Abundance estimates for fin, humpback and sperm whales were submitted to the IWC Scientific Committee meeting in 2002 and estimates for minke whales are submitted to the 2003 meeting (SC/55/NAM2, SC/55/NAM3). New analytical methods have been applied to data on minke and humpback whales from NASS-2001 in co-operation with the Research Unit for Wildlife Population Assessment in St Andrews, Scotland (Borchers 2003, Burt et al. 2003, SC/55/NAM3).

3. Marking data

3.1 Field work

3.1.1 NATURAL MARKING DATA

Surveys for collection of photographs and biopsies from humpback whales northeast of Iceland and blue whales west of Iceland were carried out in July 2002. Photos of 5 humpback and 5-10 blue whales were obtained. Some photographs were collected from platforms of opportunity by MRI's co-operative partners (Icelandic whale watching companies) for ongoing long-term studies on blue, humpback and killer whales. The photos from 2002 have not as yet been analysed.

3.1.2 TELEMETRY DATA

Two minke whales were marked with satellite tags north off Iceland 20. August 2002. One of the tags transmitted data for 80 days (SC/55/NAM8).

Species	Tag type	No. successfully deployed	Maximum time transmitting	Contact institute
Minke whale	Satellite	1	80 days	MRI

3.2 Analyses/development of techniques

To our knowledge minke whales have not previously been tracked via satellite for 80 days or more. The minke whale moved from the tagging site NE of Iceland to about 56°N-27°W during the tagging period (20/8-8/11 2002) (SC/55/NAM8).

4. Tissue/biological samples collected

4.1 Biopsy samples(April 2002-March 2003)

Species	Area	Calendar year/season collected	Archived (Y/N)	Tissue types*	Contact institute
Humpback	NE-Iceland	2002/Jul-Aug/ 5	Y	sk	MRI

* te=teeth, go=gonads, st=stomach, mu=muscle, bl=blubber, sk=skin, blo=blood, he=heart, li=liver, ki=kidney

4.2 Samples from bycatches (April 2002-March 2003)

Species	Area	Calendar year/ season no. collected	Archived (Y/N)	Tissue types*	Contact institute
Minke	SE-Iceland	2002/May/ one	Y	go	MRI
Humpback	SW-Iceland	2002/June/ one	Y	go, st, mu, bl, sk, ki, lu	MRI
Minke	W-Iceland	2002/Sep/ one	Y	bul, go, st, mu, bl, sk, blo, ki, li, lu	MRI
Humpback	NE-Iceland	2002/Oct/ one	Y	st, mu, bl, sk,	MRI

* te=teeth, bul=bullae, go=gonads, st=stomach, mu=muscle, bl=blubber, sk=skin, blo=blood, he=heart, li=liver, ki=kidney, lu=lung

4.3 Samples from stranded animals (April 2002-March 2003)

Species	Area	Calendar year/ season no. collected	Archived (Y/N)	Tissue types*	Contact institute
Humpback	SW-Iceland	2002/Apr/ one	Y	bul, go, st, mu, bl, sk, blo, li, ki,	MRI
N-Bottlenose	S-Iceland	2002/Jul/ two	Y	te, st, mu, bl	MRI
Humpback	W-Iceland	2002/Aug/ one	Y	st, mu, bl	MRI
Sperm	NW-Iceland	2002/Aug/ two	Y	te**, go**, st, mu, bl, sk**, blo*, he**, li**	MRI
Minke	SW-Iceland	2002/Aug/ one	Y	mu	MRI
N-Bottlenose	E-Iceland	2002/Oct/ one	Y	go, bl	MRI
Humpback	NW-Iceland	2002/Des/ one	Y	bl, mu	MRI
Long finned pilot	E-Iceland	2003/Jan/ one	Y		INH
Minke	W-Iceland	2003/Mar/ one	Y	bul, go, st, mu, bl, sk, blo, li, ki	MRI

* te=teeth, go=gonads, st=stomach, mu=muscle, bl=blubber, sk=skin, blo=blood, he=heart, li=liver, ki=kidney
** Samples from one animal

4.4 Analyses/development of techniques

Blood samples from stranded animals have been screened for morbillivirus antibodies at Institute for Pathology, University of Iceland. Other samples were stored at the MRI.

5. Pollution studies

Various tissue samples for pollution studies have been routinely collected during dissections of stranded or bycaught cetaceans in recent years. These are stored frozen at the MRI. A comparative study is ongoing in cooperation with German and Norwegian scientists on pollutant levels and pathology of harbour porpoises (Vossen *et al.* 2001).

6. Statistics for large cetaceans

6.1 Direct catches (commercial, aboriginal and scientific permits) for the calendar year 2001

No directed takes of large cetaceans took place in Icelandic waters in 2002.

6.2 Other none-natural mortality for the calendar year 2002

Species	Area	Males	Females	Total landed	Cause	Methodology
Minke	Iceland	1	1	2	entangled	
Humpback	Iceland		2	2	entangled	

7. Statistics for small cetaceans

None.

8. Strandings

Information on stranded whales in Iceland are compiled by MRI in cooperation with the Institute of Natural History.

9. Other studies and analyses

New abundance estimates have been produced for a large number of cetacean species in Icelandic and adjacent waters based on the North Atlantic Sightings survey conducted in 2001 (see above).

Photo-id studies on killer, humpback and blue whales were continued in co-operation with the following partners: MICS (Canada), Wild Idea (Norway) and Icelandic whale watching companies. All photo-id material (photographs and associated data) is being entered into a specially designed database at the MRI.

A research project on the biology of white-beaked dolphins in Icelandic waters, based on sampling of bycaught animals during 1992-1997 is at a final stage. The project includes the first systematic investigations on various aspects of the biology of white beaked dolphins in Icelandic waters, such as feeding ecology, reproductive biology, growth and energetics.

A study on feeding ecology of northern bottlenose whales and beaked whales based on samples obtained from stranded animals in Iceland in recent decades is at a final stage.

Systematic monitoring of marine mammal bycatch in fishing gear was initiated in January 2002.

10. Literature cited

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11. Publications

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11.2 Unpublished literature

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