

Denmark. Progress report on cetacean research, March 2006 to March 2007, with statistical data for the calendar year 2006.

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This report summarises information obtained from:

Name of agency/institute	Abbreviation (use in rest of report)	Contact e-mail address
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Greenland Ministry of Fisheries, Hunting and Agriculture	DFFL	FEUG@GH.GL

1. SPECIES AND STOCKS STUDIED

IWC common name	IWC recommended scientific name	Area/stock(s)	Items referred to
Harbour porpoise	<i>Phocoena phocoena</i>	Denmark	3.1.3, 7.2, 7.3, 8
Whitebeaked dolphin	<i>Lagenorhynchus albirostris</i>	Iceland	3.1.3, 4.1
Bowhead whale	<i>Balaena mysticetus</i>	West Greenland	2.1.1, 3.1.3, 4.1, 8
Humpback whale	<i>Megaptera novaeangliae</i>	West Greenland	2.1.1, 3.1.1, 3.1.3
Fin whale	<i>Balaenoptera physalus</i>	West Greenland	2.1.1, 4.1, 6.2
Grey whale	<i>Eschrichtius robustus</i>	Chukotka, Russia	3.1.3,
Minke whale	<i>Balaenoptera acutorostrata</i>	East and West Greenland	4.1, 6.2
Northern Right Whale	<i>Eualaena glacialis</i>	North Pacific	2.1.1

2. SIGHTINGS DATA

2.1 Field work

2.1.1 Systematic

Target species	Date	Area	No. of sightings	Contact person/institute and references
Bowhead whale	March-April 2006	West Greenland	36	Lars Witting, GINR
Humpback whale	2006	Nuuk fjord and Disko bay	n.a.	Lars Witting, GINR
Fin whales	2006	Disko Bay	n.a.	Lars Witting, GINR
Fin, humpback, bowhead, and right whales	2006-07	Davis Strait	n.a.	Malene Simon, GINR

2.1.2 Opportunistic, platforms of opportunity

2.2 Analyses/development of techniques**3. MARKING DATA****3.1 Field work***3.1.1 Natural marking data*

Species	Feature	Area/stock	No. photo-id'd	Catalogue (Y/N)	Catalogue total	Contact person/institute; refs
Humpback whale	Fluke	West Greenland / Disko	Not analysed	N	11	Fernando Ugarte, DFFL
Humpback whale	Dorsal fin	West Greenland / Disko	Not analysed	N	11	Fernando Ugarte, DFFL
Humpback whale	Fluke	West Greenland / Nuuk	Not analysed	N	2	Fernando Ugarte, DFFL

*3.1.2. Artificial marking data**3.1.3 Telemetry data*

Species	Tag type	No. successfully deployed	Maximum time transmitting	Contact person/institute; refs
Bowhead whale	Satellite	9	n.a.	Lars Witting, GINR
Bowhead whale	Fluorometer	3	n.a.	Lars Witting, GINR
Grey whale	Satellite	13	n.a.	Lars Witting, GINR
Humpback whale	Satellite	13	n.a.	Lars Witting, GINR
Humpback whale	Satellite	2	n.a.	Lars Witting, GINR
Whitebeaked dolphin	Satellite & acoustic	2	n.a.	Lee Miller, SDU
Harbour porpoise	Satellite & acoustic	2	n.a.	Lee Miller, SDU

3.2 Analyses/development of techniques**4. TISSUE/BIOLOGICAL SAMPLES COLLECTED****4.1 Biopsy samples**

Species	Area/stock	Calendar year/season - no. collected	Archived (Y/N)	No. analysed	Total holdings	Contact person/institute
Bowhead whale	West Greenland	2006 / 23	Y	n.a.	n.a.	Lars Witting, GINR
Minke whale	West Greenland	2006 / 130	Y	n.a.	n.a.	Lars Witting, GINR
Fin whale	West Greenland	2006 / 6	Y	n.a.	n.a.	Lars Witting, GINR
Minke whale	East Greenland	2006 / 3	Y	n.a.	n.a.	Lars Witting, GINR
Whitebeaked dolphin	Iceland	2006 / 1	Y	n.a.	n.a.	Lee Miller, SDU

4.2 Samples from directed catches (commercial, aboriginal and scientific permits) or bycatches**4.3 Samples from stranded animals****4.4 Analyses/development of techniques****5. POLLUTION STUDIES****6. STATISTICS FOR LARGE CETACEANS****6.1 Corrections to earlier years' statistics for large whales****6.2 Direct catches of large whales (commercial, aboriginal and scientific permits) for the calendar year 2006**

Species	Type of catch	Area/stock	Males	Females	Total landed	Struck and lost
Minke whale	Aboriginal	East Greenland	2	0	2	1
Minke whale	Aboriginal	West Greenland	43	128	175*	6

* Including 4 of unknown gender

Fin whale	Aboriginal	West Greenland	2	6	9**	1
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6.3 Anthropogenic mortality of large whales for the calendar year 2006

6.3.1 Observed or reported ship strikes of large whales (including non-fatal events)

6.3.2 Fishery bycatch of large whales

7. STATISTICS FOR SMALL CETACEANS

7.1 Corrections to earlier years' statistics for small cetaceans

7.2 Direct catches of small cetaceans for the calendar year 2006

There is at present no statistics worked up for the by-catches of small cetaceans in Danish waters for 2006. More information is available from contacting Finn Larsen, DIFRES (fl@difres.dk).

Concerning statistics on small cetaceans the Greenland Home Rule Government and the Government of the Faroes as a matter of principle request IWC to obtain scientific and technical information on small cetaceans from the North Atlantic Marine Mammal Commission (NAMMCO), Polar Environmental Centre, N-9296 Tromsø, Norway (Email: Nammco-sec@nammco.no).

7.3 Anthropogenic mortality of small cetaceans for the calendar year 2006

7.3.1 Observed or reported ship strikes of small cetaceans (including non fatal events)

7.3.2 Fishery bycatch of small cetaceans

There are no estimates of bycatch of harbour porpoises and other small cetaceans in Danish waters for 2006.

8. STRANDINGS

Give a paragraph detailing the nature of the strandings reporting process (e.g. completely opportunistic, one or more networks, coastline covered, seasonal coverage). Then complete the following summary table with information where people can go for more details.

Information on strandings of harbour porpoises and other cetaceans in Denmark is available from Henrik Lykke Sørensen, Skov&Naturstyrelsen, Denmark (hls@sns.dk).

Species	No. strandings	No. post mortems	Contact person(s)/ Institute(s)	Contact email address(es)
Bowhead whale	1	0	Fernando Ugarte / DFFL	feug@gh.gl

9. OTHER STUDIES AND ANALYSES

10. LITERATURE CITED

11. PUBLICATIONS

11.1 Published or 'In Press' papers only

- Akamatsu, T., Dietz, R., Miller, L. A., Naito, Y., Siebert, U., Teilmann, J., Tougaard, J., Wang, D., and Wang, K. 2007. Comparison of echolocation behaviour between coastal and riverine porpoises. *Deep-Sea Res. II* 54:290-297.
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- Beedholm, K. and Miller, L. A. 2007. Automatic gain control in harbor porpoises? Central versus peripheral mechanisms. *Aq. Mamm.* 33:67-73.
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- Blanchet, M.-A., Desportes, G., Nance, T., Vanman, C. 2006. Description of the pregnancies, labours, and pre- and post-partum events of two harbour seals (*Phoca vitulina*) in a zoological environment. *Aq. Mamm.* 32(2):145-151.
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** Including one of unknown gender

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- Fjälling, A., M. Wahlberg and H. Westerberg 2006. Acoustic Harassment Devices (AHD) reduce seal interaction in the Baltic salmon trap net fishery. *ICES J. Mar. Sci.* 63:1751-1758.
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- Heerfordt, A., B. Møhl and M. Wahlberg 2007. *A wideband link to sperm whales: a fiber-optically linked deep-sea linear hydrophone array.* *Deep-Sea Res.* 54:428-436.
- Johnson, W., Madsen, P.T., Zimmer, W.M.X., Aguilar de Soto, N. and Tyack, P.L. 2006. Foraging Blainville's beaked whales (*Mesoplodon densirostris*) produce distinct click types matched to different phases of echolocation. *J. Exp. Biol.* 209:5038-5050.
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11.2 Unpublished literature

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- Greenland Home Rule. 2006. Report on improvements in ASW in Greenland. IWC Document IWC/58/WKM & AWI4.
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- Greenland Home Rule. 2006. Summary of activities related to the Action Plan on Whale Killing Methods. IWC Document IWC/58/WKM & AWI6.
- Greenland Home Rule Government. 2006. Whale killing methods and associated welfare issues in Greenland. IWC Document IWC/58/WKM & AWI7.
- North Atlantic Marine Mammal Commission. 2007. Report of the NAMMCO workshop to address the problems of "struck and lost" in seal, walrus and whale hunting. North Atlantic House, Copenhagen, Denmark 14 - 16 November 2006. NAMMCO. 78 pp (available on line <http://www.nammco.no>)

Appendix 1. FOA fishing descriptions and codes

FAO FISHING GEAR CATEGORIES:		FALLING GEAR	
SURROUNDING NETS		Cast nets	FCN
With purse lines	PS	Falling gear (not specified)	FG
One-boat operated purse seines	PS1	GILLNETS AND ENTANGLING GEAR	
Two-boat operated purse seines	PS2	Set gillnets (anchored)	GNS
Without purse lines (lampara)	LA	Driftnets	GND
SEINE NETS		Encircling gillnets	GNC
Beach seines	SB	Fixed gillnets (on stakes)	GNF
Boat seines	SV	Trammel nets	GTR
Danish seines	SDN	Combined gillnet-trammel nets	GTN
Scottish seines	SSC	Gillnets and entangling gillnets (not specified)	GEN
Pair seines	SPR	Gillnets (not specified)	GN
Seine nets (not specified)	SX	TRAPS	
TRAWLS		Stationary uncovered pounds nets	FPN
Bottom trawls	TBB	Pots	FPO
Beam trawl	OTB	Fyke nets	FYK
Otter trawls (side or stern)	PTB	Stow nets	FSN
Pair trawls	TBN	Barriers, fences, weirs, etc	FWR
Nephrops trawls	TBS	Aerial traps	FAR
Shrimp trawls (not specified)	TM	Traps (not specified)	FIX
Midwater trawls		HOOKS AND LINES	
Otter trawls (side or stern)	OTM	Handlines and pole-lines (hand operated)	LHP
Pair trawls	PTM	Handlines and pole-lines (mechanised)	LHM
Shrimp trawls	TMS	Set longlines	LLS
Midwater trawls (not specified)	TM	Drifting longlines	LLD
Otter twin trawls	OTT	Longlines (not specified)	LL
Otter trawls (not specified)	OT	Trolling lines	LTL
Pair trawls (not specified)	PT	Hooks and lines (not specified)	LX
Other trawls (not specified)	TX	GRAPPLING AND WOUNDING	
DREDGES		Harpoons	HAR
Boat dredges	DRB	HARVESTING MACHINES	
Hand dredges	DRH	Pumps	HMP
LIFT NETS		Mechanised dredges	HMD
Portable lift nets	LPN	Harvesting machines (not specified)	HMX
Boat-operated lift nets	LNB	MISCELLANEOUS GEAR	MIS
Shore operated stationary lift nets	LNS	RECREATIONAL FISHING GEAR	RG
Lift nets (not specified)	LN	GEAR NOT KNOWN OR NOT SPECIFIED	NK
		SHARK CONTROL NETS	NSC
		DERELICT FISHING GEAR	