

Denmark.
Progress report on cetacean research,
March 2010 to March 2011,
with statistical data for the calendar year 2010.

COMPILED BY MAGNUS WAHLBERG

Fjord&Bælt, Margrethes Plads 1, DK-5300 Kerteminde, Denmark; email: magnus@fjord-baelt.dk

This report summarises information obtained from:

Name of agency/institute	Abbreviation (use in rest of report)	Contact e-mail address
Lasse Fast Jensen	LFJ	<i>lfj@fimus.dk</i>
Arctic Station, University of Copenhagen	AS	<i>ote@science.ku.dk</i>
Greenland Institute of Natural Resources	GINR	<i>Fernando Ugarte feug@natur.gl Mads Peter Heide-Jørgensen mhj@ghsdk.dk Lars Witting lawi@natur.gl</i>
Ministry of Fisheries, Hunting and Agriculture	APNN	<i>apnn@nanoq.gl</i>
National Environmental Research Institute	NERI	<i>agj@dmu.dk</i>

1. SPECIES AND STOCKS STUDIED

IWC common name	IWC recommended scientific	Area/stock(s)	Items referred to
Bowhead whale	<i>Balaena mysticetus</i>	Davis Strait-Baffin Bay	3.1.1, 4.1
Humpback whale	<i>Megaptera novaeangliae</i>	West Greenland	3.1.1, 3.1.3., 4.1, 4.2, 6.3, 9
Bowhead whale	<i>Balaena mysticetus</i>	West Greenland	3.1.3., 4.1, 4.2, 6.3, 9
Bowhead whale	<i>Balaena mysticetus</i>	East Greenland / Svalbard	3.1.3
Humpback whale	<i>Megaptera novaeangliae</i>	Iceland	3.1.3
Minke whale	<i>Balaenoptera acutorostrata</i>	West Greenland	3.1.3, 4.2, 6.3
Bowhead whale	<i>Balaena mysticetus</i>	Alaska	3.1.3
Harbour porpoise	<i>Phocoena phocoena</i>	Denmark	3.1.3, 4.1, 4.2, 4.3, 7.3.2, 8
Pilot whale	<i>Globicephala melas</i>	Færöe Islands	4.1
Narwhal	<i>Molnodon monoceros</i>	Thule Area, Greenland	4.1
Minke whale	<i>Balaenoptera acutorostrata</i>	East Greenland/Iceland	4.2, 6.3
Fin whale	<i>Balaenoptera physalus</i>	West Greenland	4.2, 6.2
Whitebeaked dolphin	<i>Lagenorhynchus albirostris</i>	Denmark	4.3, 8
White-sided dolphin	<i>Lagenorhynchus acutus</i>	Denmark	4.3, 8
Common dolphin	<i>Delphinus delphi</i>	Denmark	4.3, 8
Pilot whale	<i>Globicephala melas</i>	Denmark	4.3, 8
Fin whale	<i>Balaenoptera physalus</i>	Denmark	4.3, 8
Minke whale	<i>Balaenoptera acutorostrata</i>	Denmark	8

2. SIGHTINGS DATA

2.1 Field work

2.1.1 Systematic

Target species	Date	Area	No. of sightings	Contact person / institute and references

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
Bowhead whale	Whole body	Davis Strait – Baffin Bay	135	Y	109	O Tervo AS / KU
Humpback whale	Fluke	West Greenland	67 encounters, 25 individuals	Y	76 (1988-2010)	F. Ugarte, GINR

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 transmitter	57	14 months	M.P. Heide-Jørgensen, GINR
Humpback whale	Satellite transmitter	29	3 months	M.P. Heide-Jørgensen, GINR
Minke whale	Satellite transmitter	1	0 months	M.P. Heide-Jørgensen, GINR
Harbour porpoise	SPLASH tag, Wildlife Computers	6	1.5 years	J. Teilmann, NERI, jte@dmu.dk

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	Davis Strait – Baffin	2010: 22	Y	all	22	O. Tervo AS/KU
Bowhead whale	West Greenland	2010: 114	Y	All	506	M.P. Heide-Jørgensen GINR
Humpback whale	Disko (West G.)	2010: 29	Y	All	60	M.P. Heide-Jørgensen GINR
Harbour porpoise	Belt Sea/inner Danish waters	2010	Y	0	6	Jonas Teilmann, NERI, jte@dmu.dk
Pilot whale	Faeroe Islands	2010	Y	0	15	Rune Dietz, NERI, rdi@dmu.dk
Narwhal	Thule area, Greenland	2010	y	0	7	Rune Dietz, NERI, rdi@dmu.dk

4.2 Samples from directed catches (commercial, aboriginal and scientific permits) or bycatches

Species	Area/stock	Calendar year/ season - no. collected	Archived (Y/N)	No. analysed	Total holdings	Contact person/institute
Bowhead whale	West Greenland	2010	Y	2	-	GINR
Minke whale	West Greenland	2010	Y	117	-	GINR
Minke whale	East Greenland	2010	Y	2	-	GINR
Fin whale	Greenland	2010	Y	5	-	GINR
Humpback whale	West Greenland	2010	Y	5	-	GINR
Harbour porpoise	Inner Danish waters	2010	Y	25	25	Jonas Teilmann, NERI, jte@dmu.dk

4.3 Samples from stranded animals

Denmark: 3 harbour porpoises, 1 whitebeaked dolphin, 1 white-sided dolphin, 1 common dolphin, 1 pilot whale and 1 fin whale.

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 2009

Species	Type of catch	Area/stock	Males	Females	Total landed	Struck and lost
Fin whale	ASW	West Greenland	0	4	4	1
Minke whale	ASW	West Greenland	53	120	179#	7
Minke whale	ASW	East Greenland	4	2	9\$	0
Bowhead whale	ASW	West Greenland		3	3	0
Humpback whale	ASW	West Greenland	3	5	9*	0

Including 6 reported catch of unknown gender

\$ Including 3 reported catch of unknown gender

* Including 1 reported catch of unknown gender

6.3 Anthropogenic mortality of large whales for the calendar year 2009

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

- A skiff collided with a humpback whale off Ilulissat July 2010. Man went overboard, non-fatal, no observation of damage to the whale.
- A skiff collided with a humpback whale off Qeqertarsuaq July 2010. Family went overboard, non-fatal, no observation of damage to the whale.

6.3.2 Fishery bycatch of large whales

- 1 humpback whale in Uummannaq (male with a length of 9.5 m) entangled in pond net for cod, euthanized.

7. STATISTICS FOR SMALL CETACEANS

- Statistics for small cetaceans from Greenland and the Faeroe Islands are available from NAMMCO

7.1 Corrections to earlier years' statistics for small cetaceans

7.2 Direct catches of small cetaceans for the calendar year 2009

7.3 Anthropogenic mortality of small cetaceans for the calendar year 2009

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

7.3.2 Fishery bycatch of small cetaceans

- 24 bycaught harbour porpoises were dissected by DMU (Signe Svegaard, sign@dmu.dk)

8. STRANDINGS

Strandings in 2010:

Species	No. strandings	No. post mortems	Contact person(s)/ Institute(s)	Contact email address(es)
Harbour porpoise	115	3	Charlotte Bie Thøstesen FIMUS	cbt@fimus.dk
Whitebeaked dolphin	3	0	Charlotte Bie Thøstesen FIMUS	cbt@fimus.dk
Whitesided dolphin	1	1	Charlotte Bie Thøstesen FIMUS	cbt@fimus.dk
Common dolphin	1	1	Charlotte Bie Thøstesen FIMUS	cbt@fimus.dk
Pilot whale	1	1	Charlotte Bie Thøstesen FIMUS	cbt@fimus.dk
Minke whale	1	1	Charlotte Bie Thøstesen FIMUS	cbt@fimus.dk
Fin whale	1	1	Charlotte Bie Thøstesen FIMUS	cbt@fimus.dk

9. OTHER STUDIES AND ANALYSES

PhD project in progress: Acoustic behaviour of bowhead whales *Balaena mysticetus* in Disko Bay, Western-Greenland. O Tervo AS/KU

Fieldwork to measure the effect of whale watching guidelines on the behaviour of humpback whales started in 2010. T. Boye, M. Simon and F. Ugarte, GINR.

From May 2010- April 2011 6 Danish gillnet vessels (<15m) monitor bycatch by use of CCTV cameras. Data on bycatch from this trial will be available after April 2011.

10. LITERATURE CITED

11. PUBLICATIONS

11.1 Published or 'in Press' papers only

References from GINR are limited to large whales only. Lists of publications about other species/topics can be found at www.Natur.gl

Alstrup, A. K. O., Dietz, R. & Sonne, C. (2010). Kviksolv i grønlandske havpattedyr. Dansk Veterinaertidsskrift. 93(6): 18-20.

Aubail, A., Dietz, R., Riget, F. F., Simon-Bouhet, B. & Caurant, F. (2010). An evaluation of teeth of ringed seals (*Phoca hispida*) from Greenland as a matrix to monitor spatial and temporal trends of mercury and stable isotopes. Science of the Total Environment. 408: 5137-5146.

Boertmann, D. & Nielsen, R. D. (2010). A bowhead whale calf observed in northeast Greenland waters Polar Record: 373-375.

Boye, T.K., Simon, M. & Madsen, P.T. (2010). Habitat use of humpback whales in Godthaabsfjord, West Greenland with implications for commercial exploitation. Journal of the Marine Biological Association of the United Kingdom 90:1529-1538.

Brandao, A., Punt, A., Schweder, T. & Witting, L. (2010). Report of the small group on comparison of the methods applied in SC/61/AWMP5 and SC/61/AWMP7. Appendix 2, Annex E. Report of the Standing Working Group on the Aboriginal Whaling Management Procedure. The Journal of Cetacean Research and Management, 11 (Suppl. 2): 143-148.

Clausen, K.T., Wahlberg, M., Beedholm, K., DeRuiter, S. & Madsen, P.T. (2010). Click communication in harbour porpoises (*Phocoena phocoena*). Bioacoustics vol 20: 1-28.

Deruiter, S., Hansen, M. Koopman, H. N., Westgate, A. J., Tyack, P. & Madsen, P. T. (2010). Propagation of narrow-band-high-frequency clicks: measured and modeled transmission loss of porpoise-like clicks in porpoise habitats. Journal of the Acoustical Society of America 127(1): 560-567.

Edren, S. M., Wisz, M. S., Teilmann, J., Dietz, R. & Söderkvist, J. (2010). Modelling spatial patterns in harbour porpoise satellite telemetry data using maximum entropy. Ecography. 33, 4: 698-708.

Edren, S. M., Andersen, S. M., Teilmann, J., Carstensen, J., Harders, P. B., Dietz, R. & Miller, L. A. (2010). The effect of a large Danish offshore wind farm on harbor and gray seal haul-out behaviour. Marine Mammal Science. 26(3): 614-634.

Galatius, A., Berta, A., Frandsen, M. S. & Goodall, R. N. P. (2011). Interspecific variation of ontogeny and skull shape among porpoises (Phocoenidae). Journal of Morphology 252:136-148.

Galatius, A. (2010) Paedomorphosis in two small toothed whales (Odontoceti): how and why? Biological Journal of the Linnean Society, 99: 278-295.

Garrigue, C., Zerbini, A., Geyer, Y., Heide-Jørgensen, M.P., Hanaoka, W. & Clapham, P. (2010). Movements of satellite-monitored humpback whales from New Caledonia Journal of Mammalogy 91(1): 109-115.

Hauser, N., Zerbini, A.N., Geyer, Y., Heide-Jørgensen, M.P. & Clapham, P. (2010) Movements of satellite-monitored humpback whales, *Megaptera novaeangliae*, from the Cook Islands Marine Mammal Science DOI: 10.1111/j.1748-7692.2009.00363.x

Heide-Jørgensen, M.P., Laidre, K.L., Simon, M., Burt, M.L., Borchers, D.L. & Rasmussen, M. (2010). Abundance of fin whales in West Greenland in 2007. Journal of Cetacean Research and Management 11(2):83-88.

Heide-Jørgensen, M.P., Witting, L., Laidre, K.L. & Hansen, R.G. (2010) Fully corrected estimates of minke whale abundance in West Greenland in 2007 Journal of Cetacean Research and Management 11(2):75-82

Jaspers, V. L., Dietz, R., Sonne, C., Letcher, R. J., Eens, M., Neels, N., Born, E. W. & Covaci, A. (2010). A screening of persistent organohalogenated contaminants in hair of East Greenland polar bears. Science of the Total Environment. 48(22): 5613-5618.

Johnson, G., Frantzis, A., Johynson, C., Alexiadou, V., Ridgway, S. & Madsen, P. T. (2010). Evidence that sperm whale calves (*Physeter macrocephalus*) suckle through their mouth. Marine Mammal Science 26(4): 990-996.

Kyhn, L.A., Jensen, F.H., Beedholm, K., Tougaard, J., Hansen, M. & Madsen, P. T. (2010). Echolocation in sympatric Peale's dolphins (*Lagenorhynchus australis*) and Commerson's dolphins (*Cephalorhynchus commersonii*) producing narrow-bandhigh-frequency clicks. Journal of Experimental Biology. 213: 1940-1949.

Laidre, K.L., Heide-Jørgensen, M.P., Heagerty, P., Cossio, A., Bergstrom, B. & Simon, M. (2010). Spatial associations between large baleen whales and their prey in West Greenland. Marine Ecology Progress Series 402: 269-284.

Laidre, K.L., Heide-Jørgensen, M.P., Logsdon, M.L., Delwiche, L. & Nielsen, T.G. (2010). A whale of an opportunity: Examining the vertical structure of high Arctic waters using space-based ocean observations and instrumented marine predators. Marine Biology Research 6: 519-529.

Letcher, R. J., Bustnes, J. O., Dietz, R., Jenssen, B. M., Jørgensen, E. H., Sonne, C., Verreault, J., Vijayan, M. M. & Gabrielsen, G. W. (2010). Exposure and effects assessment of persistent organohalogen contaminants in arctic wildlife and fish. *Science of the Total Environment*. 408: 2995-3043.

Madsen, P. T., Wisniewska, D. M. & Beedholm, K. (2010). Single source sound production and dynamic beam formation in echolocating harbour porpoises (*Phocoena phocoena*). *Journal of experimental Biology* 213: 3105-3110.

Miller, L. A. (2010). Prey capture by harbour porpoises (*Phocoena phocoena*): A comparison between echolocators in the field and in captivity. *Journal of the Marine Acoustical Society Japan* 37(3): 156-168.

Pilsner, J. R., Lazarus, A. L., Nam, D., Letcher, R. J., Sonne, C., Dietz, R. & Basu, N. (2010). Mercury-associated DNA hypomethylation in polar bear brains via the LUMINOMETRIC Methylation Assay: a sensitive method to study epigenetics in wildlife. *Molecular Ecology* 19(2):307-314.

Quakenbush L.T., Citta J.J., George J.C., Small R.J. & Heide-Jørgensen M.P. (2010) Fall and winter movements of bowhead whales (*Balaena mysticetus*) in the Chukchi Sea and within a potential petroleum development area. *Arctic* 63(3): 289-307.

Rosing-Asvid, A., Teilmann, J., Dietz, R. & Olsen, M. T. (2010). First Confirmed Record of Grey Seals in Greenland. *Arctic*. 63(4): 471-473.

Ross, P.S., Barlow, J., Jefferson, T.A., Hickie, B.E., Lee, T., MacFarquhar, C., Parsons, E.C., Riehl, K.N., Rose, N.A., Slooten, E., Tsai, C.-Y., Wang, J.Y., Wright, A.J. & Yang, S.C. (2011). Ten guiding principles for the delineation of priority habitat for endangered small cetaceans. *Marine Policy*, 35: 483-488.

Simon, M., Stafford, K., Beedholm, K., Lee, C. & Madsen, P.T. (2010). Singing behavior of fin whales in the Davis Strait with implications for mating, migration and foraging. *Journal of the Acoustical Society of America* 128: 3200-3210.

Simon, M., Nuutila, H., Reyes-Zamudio, M. M., Ugarte, F., Verfuss, U. & Evans, P. G. H. (2010). Passive acoustic monitoring of bottlenose dolphins and harbour porpoises in Cardigan Bay, Wales, with implications for habitat use and partitioning. *Journal of the Marine Biological Association of the United Kingdom* 90(8): 1539-1545.

Sonne, C., Dam, M., Leifsson, P. S. & Dietz, R. (2010). Liver and renal histopathology of North Atlantic long-finned pilot whales (*Globicephala melas*) contaminated with heavy metals and organochlorine compounds. *Toxicological and Environmental Chemistry*. 92(5): 969-985.

Sveegaard, S., Teilmann, J., Tougaard, J., Dietz, R., Mouritsen, K.N., Desportes, G. & Siebert, U. (2010). High density areas for harbor porpoises (*Phocoena phocoena*) identified by satellite tracking. *Marine Mammal Science* 27(1):230-246.

Teilmann, J., Riget, F. F. & Harkonen, T. (2010). Optimizing survey design for Scandinavian harbour seals: population trend as an ecological quality element. *I C E S Journal of Marine Science*. 67(5): 952-958.

Tervo, O.M., Parks, S.E., Christoffersen M.F., Miller L.A. & Kristensen, R.M. (2011). Annual changes in the winter song of bowhead whales *Balaena mysticetus* in Disko Bay, Western-Greenland. *Marine Mammal Science* DOI: 10.1111/j.1748-7692.2010.00451.x

Tougaard, J. & Kyhn, L. A. (2010). Echolocation sounds of Hourglass Dolphins (*Lagenorhynchus cruciger*) are similar to the Narrow Band High-Frequency Echolocation Sounds of the dolphin genus *Cephalorhynchus*. *Marine Mammal Science*. 26(1): 239-245.

Tougaard, J. & Wisz, M. (2010). General models of the spatial distribution of porpoises require representative data and parsimony: Comment on Skov & Thomsen (2008). *Marine Ecology - Progress Series*. 399: 295-297.

Wiemann, A., Andersen, L. W., Berggren, P., Siebert, U., Benke, H., Teilmann, J., Lockyer, C., Pawliczka, I., Skóre, K., Roos, A., Lyrholm, T., Paulus, K. B., Ketmaier, V. & Tiedemann, R. (2010). Mitochondrial Control Region and microsatellite analyses on Harbour porpoise (*Phocoena phocoena*) unravel population differentiation in the Baltic Sea and adjacent waters. *Conservation Genetics*. 11: 195-211.

Wiemann, A., Andersen, L.W., Berggren, P., Siebert, U., Benke, H., Teilmann, J., Lockyer, C., Pawliczka, I., Skora, K., Roos, A., Lyrholm, T., Paulus, K.B., Ketmaier, V. & Tiedemann, R. (2010). Mitochondrial Control Region and microsatellite analyses on harbour porpoise (*Phocoena phocoena*) unravel population differentiation in the Baltic Sea and adjacent waters. *Conservation Genetcs* 11:195–211.

Witting, L. (2010). Suggestions for preferred closed and influx models for West Greenland minke whales. Appendix 6, Annex E. Report of the Standing Working Group on the Aboriginal Whaling Management Procedure. The Journal of Cetacean Research and Management, 11 (Suppl. 2): 152-153.

Witting, L. & Brandao, A. (2010). Closed models for West Greenland minke whales. Appendix 5, Annex E. Report of the Standing Working Group on the Aboriginal Whaling Management Procedure. The Journal of Cetacean Research and Management, 11(Suppl. 2): 151-152.

Wright, AJ. & Walsh, L.A. (2010). Mind the gap: why neurological plasticity may explain seasonal interruption in humpback whale song. Journal of the Marine Biological Association of the United Kingdom, 90: 1489-1491.

Åsbakk, K., Aars, J., Derocherc, A. E., Wiig, Ø., Oksanene, A., Born, E. W., Dietz, R. & Sonne, C. (2010). Serosurvey for Trichinella in polar bears (*Ursus maritimus*) from Svalbard and the Barents Sea. Veterinary Parasitology. 172: 256-263.

11.2 Unpublished literature

References from GINR are limited to large whales only. Lists of reports about other species/topics can be found at www. Natur.gl

Bachmann, L., Wiig, Ø., Heide-Jørgensen, M.P., Laidre, K.L., Postma, L.D., Dueck, L. & Palsbøll, P. (2010). Genetic diversity in Eastern Canadian and Western Greenland bowhead whales (*Balaena mysticetus*) 6pp IWC SC/62/BRG 26.

Boertmann, D. (2010). Marine mammals in the Disko West area. A knowledge update. Nr. 20-2971.

Boertmann, D., Tougaard, J., Johansen, K. L. & Mosbech, A. (2010). Guidelines to environmental impact assessment of seismic activities in Greenland waters, 2 udg. National Environmental Research Institute, Aarhus University. 42 s. (NERI Technical Report; 785).

Boertmann, D. & Nielsen, R. D. (2010). Geese, seabirds and mammals in North and Northeast Greenland. Aerial surveys in summer 2009. National Environmental Research Institute, Aarhud University. 66 s. (NERI Technical Report; 773).

Born, E., Sonne, C. & Dietz, R. (2010). Polar Bears: Proceedings of the 15th Working Meeting of the IUCN/SSC Polar Bear Specialist. Research on polar bears in Greenland 2005–2009. Obbard, M., Thiemann, G., Peacock, E. & DeBruyn, T. (red.). Gland, Switzerland and Cambridge, UK : IUCN s. 135-148.

Born, E., Boertmann, D., Heide-Jørgensen, M., Dietz, R., Witting, L., Kyhn, L. A., Fosette, S., Riget, F. F., Laidre, K. & Ugarte, F. (2010). Walrus studies in Northeast Greenland. Zackenberg Ecological Research Operations, 15th annual report, 2009. Jensen, L. & Rasch, M. (red.). National Environmental Research Institute, Aarhus University s. 116-117.

Elmeros, M., Hansen, T., Baagøe, H. & Teilmann, J. (2010). Den danske rødliste. Wind, P. & Pihl, S. (red.). Danmarks Miljøundersøgelser, Aarhus Universitet

Elmeros, M., Hansen, T. S., Baagøe, H. J. & Teilmann, J. (2010). Rødliste Pattedyr Danmark 2009 (Notat til Skov- og Naturstyrelsen). 70 s.

Hansen, R.G., Heide-Jørgensen, M.P., &Laidre, K.L. (2010). Recent abundance of bowhead whales in Isabella Bay, Canada 6pp IWC SC/62/BRG 28

Heide-Jørgensen, M.P. & Laidre, K.L. (2010). Satellite tracking of humpback whales in West Greenland in 2008 and 2009 – a preliminary presentation Large Whale Assessment Working Group, Copenhagen 9-11 March.

Heide-Jørgensen, M.P. & Laidre K (2010). Studies of bowhead whales in relation to the Disko West environmental assessment, 2009-2010. Report to NERI from Greenland Institute of Natural Resources.

Heide-Jørgensen, M.P., Garde, E., Nielsen, N.H. & Andersen, O.N. (2010). Biological data from the hunt of bowhead whales in West Greenland 2009 and 2010 7pp IWC SC/62/BRG 27

Heide-Jørgensen, M.P., Laidre, K.L., Wiig, Ø., Postma, L.D., Dueck, L. & Bachmann, L. (2010). Large scale sexual segregation of bowhead whales 13pp IWC SC/62/BRG 23

Juul-Pedersen, T., Rysgaard, S., Batty, P., Mortensen, J., Retzel, A., Nygaard, R., Burmeister, A., Søgaard, D.H., Martinsen, W., Sejr, M.K., Blicher, M.E., Krause-Jensen, D., Christensen, P.B., Marbà, N., Olesen, B.,

Labansen, A.L., Rasmussen, L.M., Witting, L., Simon, M., & Ugarte, F. (2010). NUUK Basic: The MarineBasis programme, pp. 42-61. In Jensen, L.M. & Rasch, M (eds) Nuuk Ecological Research Operations, 3rd Annual Report, 2009. National Environmental Research Institute, Aarhus University, Denmark. 80 pp

Kyhn, L.A. (2010). Passive acoustic monitoring of toothed whales, with implications for mitigation, management and biology. PhD thesis. Dep. of Arctic Environment, National Environmental Research Institute, Aarhus University, Denmark. 166 pp.

Mosbech, A., Johansen, P., Boertmann, D., Dietz, R., Tougaard, J., Asmund, G. & Schiedek, D. (2010). DMUs vurdering af Cairns VVM-redegørelse for boringer i Disko West blokken i 2010.

Murphy, S. (red.), Brasseur, S., Brening, K., Clarke, M., Duck, C., Geelhoed, S., Haelters, J., Hall, A., Häkkinen, T., Hasselmeier, I., Jauniaux, T., Jepson, P., Jüssi, M., Lens, S. L., Lesage, V., Lonergan, M., Nilssen, K. T., Pierce, G., Pinn, E., Prieto da Silva, R. C. D. A. B., Santos, R. S., Notarbartolo di Sciara, G., Silva, M., Sipilä, T., Tougaard, J., Uranga, R. C., Waring, G. & Werner, S. (2010). Report of the Working Group on Marine Mammal Ecology (WGMME), 12-15 April 2010, Horta, The Azores. International Council for the Exploration of the Sea. 212 s. (ICES CM; 2010/ACOM:24).

Nabe-Nielsen, J., Tougaard, J., Sveegaard, S., Dromph, K. M., Teilmann, J. & Dietz, R. (2010). Modelling the effect of bridges on porpoise behaviour: Report commissioned by Femern Bælt A/S. National Environmental Research Institute, Aarhus University, 70 pages.

Petersen, I. K., Teilmann, J. & Hjorth, M. (2010). Vandfugle og marine pattedyr. Marine områder 2008: NOVANA. Tilstand og udvikling i miljø- og naturkvaliteten. Hjorth, M. & Josefson, A. B. (red.). Danmarks Miljøundersøgelser, Aarhus Universitet s. 75-83. (Faglig rapport fra DMU; 760).

Simon, M. (2010). The sounds of whales and their food: Baleen whales, their foraging behaviour, ecology and habitat use in an arctic habitat. PhD Thesis. Department of Biological Sciences, Aarhus University, Denmark. Pp. 191.

Sonne, C., Rosing-Asvid, A., Nielsen, S., Bechshøft, T. Ø. & Dietz, R. (2010). Afvigelser og sygdomme i Grønlands fangstdyr og mulige årsager Grønlands Indenrigsministerium.

Sonne, C. (2010). Health effects from long-range transported contaminants in Arctic top predators: An integrated review based on studies of polar bears and relevant model species. Environment International. 36, 5, s. 461-491. ANA. Danmarks Miljøundersøgelser, Aarhus Universitet. 118 s. Faglig rapport fra DMU: 766.

Svegaard, S. (2011). Spatial and temporal distribution of harbour porpoises in relation to their prey. PhD thesis. Dep. of Arctic Environment, National Environmental Research Institute, Aarhus University, Denmark. 143 pp.

Søgaard, B., Pihl, S., Wind, P., Laursen, K., Clausen, P., Andersen, P. N., Bregnbae, T., Petersen, I. K. & Teilmann, J. (2010) Arter 2008: NOV.

Tasker, M., Amundin, M., Andre, M., Hawkins, A., Lang, W., Merck, T., Scholik-Schlomer, A., Teilmann, J., Thomsen, F., Werner, S. & Zakharia, M. (2010). Marine Strategy Framework Directive, Task Group 11 report on Underwater Noise and other forms of Energy, April 2010. European Commission. 64 s. (JRC Scientific and Technical Reports; EUR 24341 EN).

Ugarte, F. (2010) Greenland - Progress Report on Marine Mammals 2009. NAMMCO SC/19/NPR-G
Wiig, Ø., Bachmann, L., Heide-Jørgensen, M.P., Laidre, K.L., Postma, L.D., Dueck, L. & Palsbøll, P.J. (2010)
Within and between stock re-identifications of bowhead whales in Eastern Canada and West Greenland IWC
SC/62/BRG 25.

Appendix 1. FOA fishing descriptions and codes

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