

SWEDEN. PROGRESS REPORT ON CETACEAN RESEARCH, APRIL 2003 TO APRIL 2004, WITH STATISTICAL DATA FOR THE CALENDAR YEAR 2003

Compiled by Per Berggren

Department of Zoology, Stockholm University, S-106 91 Stockholm, Sweden
Email: berggren@zoologi.su.se

This report summarises information obtained from: Stockholm University (SU), Department of Zoology, S-106 91 Stockholm, Gothenburg Natural History Museum, Box 7283, S-402 35 Göteborg, Swedish Museum of Natural History, S-104 05 Stockholm, Institute of Marine Sciences, University of Dar es Salaam, P.O. Box 668, Zanzibar, Tanzania.

1. Species and stocks studied

Common name	Scientific name	Area/stock(s)	Items referred to
Harbour porpoise	<i>Phocoena phocoena</i>	Skagerrak, Kattegat, Öresund and Baltic	4.2, 4.3, 7.1, 8
Whitebeaked dolphin	<i>Lagenorhynchus albirostris</i>	Skagerrak Sea	8
Minke whale	<i>Balaenoptera acutorostrata</i>	Skagerrak Sea	8
Indo-Pacific Bottlenose dolphin	<i>Tursiops aduncus</i>	Zanzibar, Tanzania	2.1.1, 3.1.1, 4.1, 4.2, 7.1
Bottlenose dolphin	<i>Tursiops truncatus</i>	Zanzibar, Tanzania	4.2, 7.1
Spinner dolphin	<i>Stenella longirostris</i>	Zanzibar, Tanzania	4.2, 7.1
Indo-Pacific Humpback dolphin	<i>Sousa chinensis</i>	Zanzibar, Tanzania	2.1.1, 3.1.1, 4.1, 4.2, 7.1
Risso's dolphin	<i>Grampus griseus</i>	Zanzibar, Tanzania	4.2, 7.1
Spotted dolphin	<i>Stenella attenuata</i>	Zanzibar, Tanzania	4.2, 7.1
Humpback whale	<i>Megaptera novaeangliae</i>	Zanzibar, Tanzania	8

2. Sightings data

2.1 Field work

2.1.1 Systematic

Photo-identification and biopsy sampling of Indo-Pacific bottlenose and humpback dolphins was conducted off the south coast of Zanzibar, Tanzania, January – March 2004 (SU).

3. Marking data

3.1.1 Natural marking data

Mark-recapture analyses (using the software Capture) was conducted on photo-identification data collected between 1999 – 2003 of Indo-Pacific bottlenose dolphins and humpback dolphins off the south coast of Zanzibar, Tanzania. Latest available abundance estimates from data collected in 2001: 161 (95% CI 144-177) bottlenose dolphins and 71 (95% CI 48-94) humpback dolphins.

Species	Feature	Area /stock (s)	Calendar year / season No. photographed	Catalogued Y/N	Catalogue total	Contact person/ institute
I.P. Bottlenose dolphin	Dorsal fin/body	Zanzibar	>50	Y	170	P. Berggren, SU
I.P. Humpback dolphin	Dorsal fin/body	Zanzibar	>25	Y	70	P. Berggren, SU
Humpback whale	Dorsal fin/body	Zanzibar	0	-	6	P. Berggren, SU

4. Tissue/biological samples collected

4.1 Biopsy samples

Common name	Area/stock(s)	Calendar Year / season No. collected	Archived Y/N	No. analysed	Total holdings	Contact person/ institute
Humpback whale	Zanzibar	0	-	0	3	P. Berggren, SU
I.P. Bottlenose dolphin	Zanzibar	17	Y	-	47	P. Berggren, SU
I.P. Humpback dolphin	Zanzibar	0	-	-	6	P. Berggren, SU

4.2 Samples from by-catches

Swedish legislation demand that harbour porpoises bycaught or found stranded in the Baltic Sea should be retrieved and submitted to the Swedish Museum of Natural History in Stockholm whereas porpoises from other areas only need to be reported.

Bycaught and stranded cetaceans around Zanzibar, Tanzania were collected by the Institute of Marine Sciences (IMS), University of Dar es Salaam. This work is part of a collaborative project between Stockholm University and IMS and funded through the Swedish International Development Agency (Sida). The project was initiated in 1998 and is aimed at assessing the status of marine mammals in Zanzibar and Tanzania. For more information on this project contact Per Berggren.

Common name	Area/stock(s)	2003 Jan-Dec No. collected	Archived Y/N	Tissue Type (s)	Contact person/ institute
Harbour porpoise	Swedish Skagerrak Sea	3	Y	Dorsal fin & teeth	A. Nilsson, GNM
I.P Bottlenose dolphin	Zanzibar, Tanzania	15	Y	All tissues	P. Berggren, SU
Spinner dolphin	Zanzibar, Tanzania	10	Y	All tissues	P. Berggren, SU
I.P. Humpback dolphin	Zanzibar, Tanzania	4	Y	All tissues	P. Berggren, SU
Bottlenose dolphin	Zanzibar, Tanzania	1	Y	All tissues	P. Berggren, SU
Spotted dolphin	Zanzibar, Tanzania	2	Y	All tissues	P. Berggren, SU
Risso's dolphin	Zanzibar, Tanzania	1	Y	All tissues	P. Berggren, SU

4.3 Samples from stranded animals

Common name	Area/stock(s)	2003 Jan-Dec No. collected	Archived Y/N	Tissue Type (s)	Contact person/ institute
Harbour porpoise	Skagerrak and Kattegat and Öresund	16	Y	Dorsal fin & teeth	A. Nilsson, GNM
Harbour porpoise	Baltic Sea	1	Y	All tissues	I. Carlén, NRM

5. Pollution studies

None conducted but samples are routinely collected and archived.

6. Statistics for large cetaceans

6.1 Directed catches (commercial, aboriginal and scientific permits) for the calendar year 2003.

None.

6.2 Other non-natural mortality for the calendar year 2003

None.

7. Statistics for small cetaceans

7.1 For the calendar year 2003

Common name	Area/stock(s)	Incidental mortality		
		Reported*		
		Est.	Total	Source
Harbour porpoise	Baltic Sea	1	Unknown	Vessel strike
Harbour porpoise	Skagerrak and Kattegat Seas, and Öresund	4	Unknown	Gillnet
I.P. Bottlenose dolphin	Zanzibar	15	Unknown	Driftnet
Bottlenose dolphin	Zanzibar	1	Unknown	Driftnet
I.P. Humpback dolphin	Zanzibar	4	Unknown	Driftnet
Spinner dolphin	Zanzibar	10	Unknown	Driftnet
Risso's dolphin	Zanzibar	1	Unknown	Driftnet
Spotted dolphin	Zanzibar	2	Unknown	Driftnet

*Incidental reports. No independent observer programmes were operating in 2003.

8. Strandings

Common name	Area/stock(s)	No. of strandings	No. animals
Harbour porpoise	Swedish Skagerrak, Kattegat and Öresund	16	16
Harbour porpoise	Baltic Sea	1	1
Humpback whale	Zanzibar	1	1
Minke whale	Skagerrak Sea	1	1
Whitebeaked dolphin	Skagerrak Sea	1	1

11. Publications

11.1 Published or 'In Press' papers only

Börjesson, P. Berggren, P. and Ganning, B. 2003. Diet of harbour porpoises in the Kattegat and Skagerrak Seas: Accounting for individual variation and sample size. *Mar. Mam. Sci.* 19:38-58.

Börjesson, P. and Read. A.J. 2003. Variation in conception between populations of the harbour porpoises *J. of Mammalogy* 84:948-955.

Clapham, P.J., Berggren, P., Childerhouse, S., Friday, N.A., Kasuya, T., Kell, L., Kock, K-H., Manzanilla, S., di Sciara, G., Perrin, W.F., Read, A.J., Reeves, R.R., Rogan, E., Rojas-Bracho, L., Smith, T.D., Stachowitsch, M., Taylor, B.L., Thiele, D., Wade, P.R. and Brownell, R.L. Jr. 2003. Viewpoint: Whaling as science. *Bioscience* 53: 210-212.

Krutzen, M., Sherwin, W.B., Berggren, P., and Gales, N.J. 2004 Population structure in an inshore cetacean revealed by microsatellite and mtDNA analysis: bottlenose dolphins (*Tursiops* sp.) in Shark Bay, Western Australia. *Mar. Mamm. Sci.* 20: 28-47.

Stensland, E, Angerbjörn A., Berggren, P. 2003. Mixed species groups in mammals. *Mammal Rev.* 33: 205-223.