

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

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This report summarises information obtained from: Stockholm University (SU), Department of Zoology, SE-106 91 Stockholm, Gothenburg Natural History Museum (GNM), Box 7283, SE-402 35 Göteborg, Swedish Museum of Natural History (NRM), SE-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 and Öresund	4.2, 4.3, 7.1, 8
White-beaked dolphin	<i>Lagenorhynchus albirostris</i>	Skagerrak Sea	8
Northern bottlenose whale	<i>Hyperoodon ampullatus</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
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
Pantropical spotted dolphin	<i>Stenella attenuata</i>	Zanzibar, Tanzania	4.2, 7.1
Humpback whale	<i>Megaptera novaeangliae</i>	Zanzibar, Tanzania	3.1.1, 4.1

2. Sightings data

2.1 Field work

2.1.1 SYSTEMATIC

Photo-identification of Indo-Pacific bottlenose and humpback dolphins was conducted off the south coast of Zanzibar, Tanzania, February – April 2005 (SU).

3. Marking data

3.1 Field work

3.1.1 NATURAL MARKING DATA

Mark-recapture analyses (using the software Capture) was conducted on photo-identification data collected between 1999 – 2002 of Indo-Pacific bottlenose dolphins and humpback dolphins off the south coast of Zanzibar, Tanzania. Latest available abundance estimates based on data from 2002 for bottlenose dolphins 173 (95% CI 139-214) and based on data from 2001 for humpback dolphins 71 (95% CI 52-98).

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	Fluke/dorsal fin	Zanzibar	0	-	6	P. Berggren, SU

4. Tissue/biological samples collected

4.1 Biopsy samples

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

* MtDNA and microsatellite analyses ongoing.

4.2 Samples from by-catches

Bycaught 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.

Species	Area/stock(s)	Calendar year/ season no. collected	Archived (Y/N)	Tissue Type (s)	Contact person/ institute
Harbour porpoise	Swedish Skagerrak Sea	1	Y	Dorsal fin & teeth	I. Carlén, NRM
I.P Bottlenose dolphin	Zanzibar, Tanzania	6	Y	All tissues	P. Berggren, SU
Spinner dolphin	Zanzibar, Tanzania	3	Y	All tissues	P. Berggren, SU
I.P. Humpback dolphin	Zanzibar, Tanzania	1	Y	All tissues	P. Berggren, SU
Spotted dolphin	Zanzibar, Tanzania	1	Y	All tissues	P. Berggren, SU
Risso's dolphin	Zanzibar, Tanzania	1	Y	All tissues	P. Berggren, SU

4.3 Samples from stranded animals

Species	Area/stock(s)	Calendar year/ season no. collected	Archived (Y/N)	Tissue Type (s)	Contact person/ institute
Harbour porpoise	Skagerrak and Kattegat and Öresund	26	Y	Dorsal fin & teeth	A. Nilsson, GNM
N. bottlenose whale	Skagerrak	1	Y	Skeleton	A. Nilsson, GNM
White-beaked dolphin	Skagerrak	1	Y	All tissues	A. Nilsson, GNM

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 2004.

None.

6.2 Other non-natural mortality for the calendar year 2004

None.

7. Statistics for small cetaceans

7.1 For the calendar year 2004

Species	Area/stock(s)	Incidental mortality		
		Reported	Est. Total	Source
Harbour porpoise	Skagerrak	1	Unknown	Gillnet
I.P. Bottlenose dolphin	Zanzibar	6	Unknown	Driftnet
I.P. Humpback dolphin	Zanzibar	1	Unknown	Driftnet
Spinner dolphin	Zanzibar	3	Unknown	Driftnet
Risso's dolphin	Zanzibar	1	Unknown	Driftnet
Spotted dolphin	Zanzibar	1	Unknown	Driftnet

8. Strandings

Species	Area/stock(s)	No. of strandings	No. animals
Harbour porpoise	Swedish Skagerrak, Kattegat and Öresund	26	26
N. bottlenose whale	Skagerrak Sea	1	1
Whitebeaked dolphin	Skagerrak Sea	1	1

11. Publications

11.1 Published or 'In Press' papers only

Amir, O.A., Berggren, P., Ndaro, S. G. M. and Jiddawi, N.S. 2005. Feeding ecology of the Indo-Pacific bottlenose dolphin (*Tursiops aduncus*) incidentally caught in the gillnet fisheries off Zanzibar, Tanzania. *J. Estuarine Coastal and Shelf Science* 63: 429-437.

Amir, O.A., Jiddawi, N.S. and Berggren, P. 2005. The Occurrence and Distribution of Dolphins in Zanzibar, Tanzania. *Western Indian Ocean J. Mar. Sci.* In Press.

Carlström, J. 2005. Diel variation in echolocation behavior of wild harbor porpoises. *Marine Mamm. Sci.* 21:1-12.

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. 2004. Behavioural ecology of Indo-Pacific bottlenose and humpback dolphins. Doctoral thesis, Department of Zoology, Stockholm University, Sweden. 117 pp. ISBN 91 7265 837x.