

SWEDEN. PROGRESS REPORT ON CETACEAN RESEARCH, APRIL 2006 TO APRIL 2007, WITH STATISTICAL DATA FOR THE CALENDAR YEAR 2006

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Kolmårdens Djurpark	KD	mats.amundin@kolmarden.com

1. SPECIES AND STOCKS STUDIED

Common name	Scientific name	Area/stock(s)	Items referred to
Harbour porpoise	<i>Phocoena phocoena</i>	Skagerrak, Kattegat, Öresund, Baltic Sea	2.1.1, 2.1.2, 4.2, 4.3, 5, 7.3.2
Whitebeaked dolphin	<i>Lagenorhynchus albirostris</i>	Kattegat	4.3
Indo-Pacific Bottlenose dolphin	<i>Tursiops aduncus</i>	Zanzibar, Tanzania	2.1.1
Indo-Pacific Humpback dolphin	<i>Sousa chinensis</i>	Zanzibar, Tanzania	3.1.1, 4.1.1
Humpback whale	<i>Megaptera novaeangliae</i>	Zanzibar, Tanzania	3.1.1, 4.1.1
Common bottlenose dolphin	<i>Tursiops truncatus</i>	Zanzibar, Tanzania	4.3
Killer whale	<i>Orcinus orca</i>	Norway	9

2. SIGHTINGS DATA

2.1 Field work

2.1.1 Systematic

SU in collaboration with the Danish National Environmental Research Institute conduct bimonthly (Starting January 2007) acoustic surveys of harbour porpoises in the Skagerrak, Kattegat, Danish Belt Seas & Öresund. The objectives are to test hypothesis regarding important areas for harbour porpoises and to initiate population level monitoring.

KD, LiU and FiV in collaboration with the Swedish Fishermen Association are deploying porpoise click loggers (PCL) for monitoring of harbour porpoises in the Baltic Sea.

SU conducted field work between January and April 2007 investigating the effect of dolphin-watching boats on the behaviour of Indo-Pacific bottlenose dolphins in Menai Bay, Zanzibar. The temporal dynamics of dolphin behaviours, and/or the details of how transitions between different behavioural states differ during different levels of tourist activities are investigated using a time-discrete Markov chain analysis.

2.1.2 Opportunistic, platforms of opportunity

Primary species	Area	Data type/method	Collected by	Platform	Contact person/institute and refs
Harbour porpoise	Swedish waters	sightings	The public	Boats, ferries and land	Anna.roos@nrm.se www.nrm.se

3. MARKING DATA

3.1 Field work

3.1.1 Natural marking data

SU conducted photo-id boat surveys of humpback whales off the south coast of Zanzibar, Tanzania, in September 2006.

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	100+	N	170	P. Berggren, SU
I.P. Humpback dolphin	Dorsal fin/body	Zanzibar	25+	N	70	P. Berggren, SU
Humpback whale	Fluke/dorsal fin	Zanzibar	20	Y	26	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	1	Y	0	4	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 micro satellite analyses ongoing.

4.3 Samples from stranded animals

Species	Area/stock	Calendar year/ season total	Archived (Y/N)	Tissue type(s)*	Contact person/institute
Common bottlenose dolphin	Zanzibar	205*	Y	65: teeth, skin, blubber & muscle. 140: skulls & teeth	P. Berggren SU/IMS

Harbour porpoise	Swedish waters (Skagerrak, n=1) (Kattegat, n=2) (Baltic Sea, n=6)	Skin, blubber, muscle, liver, kidney, brain, lung, spleen, skull	9	Y	Anna.roos@nrm.se
Harbour porpoise	Skagerrak-Kattegat	Teeth and dorsal fins	7	Y	anders.m.nilsson@vgregion.se
White beaked dolphin	Kattegat	As above	2	Y	Anna.roos@nrm.se anders.m.nilsson@vgregion.se
Minke whale	Skagerrak	?	1	Y	anders.m.nilsson@vgregion.se

*205 animals sampled from a single stranding with approximately 600 common bottlenose dolphins. From 65 specimens Full set of samples including blubber, muscle, liver, kidney, adrenals & lung.

5. POLLUTION STUDIES

Analyses of PCB and DDT in blubber from harbour porpoises collected in Swedish, Polish and German waters. Results were presented in a poster at the European Cetacean Society conference in San Sebastian, Spain, in April 2007 (Skoglund et al., 2007)

7. STATISTICS FOR SMALL CETACEANS

7.3 Anthropogenic mortality of small cetaceans for the calendar year 2006

7.3.2 Fishery bycatch of small cetaceans

Species	Sex	No.	Date	Location	Fate	Targeted fish species	Gear	How observed?	Source or contact
Harbour porpoise		1	3/2	Prob. Skagerrak	D				anders.m.nilsson@vgregion.se
Harbour porpoise	F	1	16/1	Väderöarna islands, Skagerrak	D	Shrimp	TM		As above
Comments: First porpoise was found in fish market									

8. STRANDINGS

Strandings are reported to the police and/or local museums and marine laboratories. By law, all cetaceans found stranded shall be forwarded to the appropriate authority. On the west coast they are taken care of by GNM and on the east coast by NRM. For details on stranded animals during 2006, see 4.3.

9. OTHER STUDIES AND ANALYSES

Genetic analyses of killer whales are carried out at NRM, and for the IWC 59 discussion about killer whales mtDNA control regions from 17 whales sampled in the Lofoten area in Norway were analysed (contact person: thomas.lyrholm@nrm.se).

11. PUBLICATIONS

11.1 Published or 'In Press' papers only

Stensland, E., Särnblad, A., Carlén, I., Bignert, A. and Berggren P. 2006 Abundance, distribution and behavioral ecology of Indo-Pacific bottlenose (*Tursiops aduncus*) and humpback (*Sousa chinensis*) dolphins off the south coast of Zanzibar. *Mar. Mamm. Sci.* 22: 667-682.

Stensland E. and Berggren, P. 2007. Behavioural changes of nursing female Indo-Pacific bottlenose dolphins in response to boat based tourism. *Mar. Ecol. Prog. Ser.* 332: 225-234.