GERMANY, PROGRESS REPORT ON CETACEAN RESEARCH, June 2002 To May 2003

compiled by

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This report summarizes information on various fields of cetacean research, historical aspects of whaling and effects of whale watching operations on cetaceans.

1. Species and Stocks Studied

Common name	Scientific name	Area/stock	Items referred to
Harbour porpoise	*Phocoena phocoena*	Baltic Sea	2., 4.2, 4.3, 4.4, 5., 7.1, 8., 9.
Harbour porpoise	*Phocoena phocoena*	North Sea	2., 4.2, 4.3, 4.4, 5., 7., 8., 9.
Various species		worldwide	9.

2. Sightings data

Sighting surveys (from shore) on harbour porpoise are being conducted at regular intervals on the island of Sylt (German Wadden Sea) throughout the year. Line transect surveys on small cetaceans, primarily harbour porpoise, were conducted during several months in all parts of the German exclusive economic zone (AWZ) of the North Sea and the Baltic.

3. Marking data

3.1 Field Work

3.1.1 + 2 NATURAL AND ARTIFICIAL MARKING DATA

No marking using artificial marks was conducted. As a result, no photographs of whales of one of the IWC management area/stocks are currently held which can be utilized in photo ID studies.

3. 1. 3 TELEMETRY DATA

No new developments were available

4. Tissue/biological samples collected

4.1 Biopsy samples

No biopsy samples were collected

4.2 Samples from by-catches

Species	Area/stock	2002: total no. of individuals	Archived	Tissue Types(s)	Contact person
Harbour porpoise	Baltic Sea Schleswig-Holstein	4	4	all organs, central nervous system, skeletal system	U. Siebert
Harbour porpoise	North Sea Schleswig-Holstein	1	1	all organs, central nervous system, skeletal system	U. Siebert
Harbour porpoise	Baltic Sea Meckl.-Prepom.	3	3	All organs, central nervous system, skelettal system	H. Benke

4.3 Samples from stranded animals

Species	Area/stock	2001: total no. of individuals	Archived	Tissue Type(s)	Contact person
Harbour	North Sea Schleswig-		12	Different tissues for	U. Siebert

porpoise *)	Holstein	51		histopathology, toxicology, genetics	
	Lower Saxony	5	5	Lung, liver, different tissues	M. Stede
	Baltic Sea Schleswig-Holstein	24	4	Different tissues for histopathology, toxicology, genetics	U. Siebert
	Baltic Sea Meckl.-Prepommerania	23	19	Skeleton, various tissues	H. Benke

*) 3 porpoises were of unknown origin of which 1 has been sampled

4.4 Analyses carried out

The Research and Technology Centre Büsum of the University of Kiel continued its investigations on histology, electron microscopy and anatomy of the nasal apparatus of harbour porpoise and its possible means for the production of ultrasound. A new study was started on acoustic exposure by means of pingcers of harbour porpoises in 2002. Histological and computer tomographical investigations of the inner ear of harbour porpoise of the Baltic and the North Sea was conducted.

5. Pollution studies

Effects of organochlorines on the immune system and endocrine system of harbour porpoise were investigated under the leadership of the Research and Technology Centre Büsum. The PCB, PBDE, DDT, DDE and toxaphene concentrations were analysed in the blood and blubber. Results were correlated with lesions of the endocrine and immune system.

Necropsies were conducted on harbour porpoise within the framework of an ongoing monitoring programme investigating small cetaceans washed ashore along the German coasts. Histology, microbiology, virology, serology and parasitology were performed on most animals. Additional samples were preserved for further investigations. Parasites found in the course of the dissections were sampled and determined. Prevalence and intensity of parasitic infestation was investigated. Pathological alterations of organs due to infestation of parasites were considered and correlated with the age of porpoises.

6. Statistics for large cetaceans

6.1 Direct catches

Germany was not engaged in any whaling activity neither commercial, nor aboriginal nor on scientific permits

6.2 Other non-natural mortality for the year 2002

None

6.3 Earlier years' statistics (historical)

All information on historical catch data available to us have already been reviewed and have been provided to the International Whaling Commission in previous years. No further data are stored to our knowledge in Germany.

7. Statistics for small cetaceans

7.1 For the calendar year 2002

No small cetaceans were taken in a directed fishery in Germany. The 7 removals were incidental takes in gill net fisheries in the Baltic.

		Incidental Mortality			
Species	Area/stock	Reported	Estim. total	Source	Live capture
Harbour porpoise	North Sea	1	1	Unkown	none
Harbour porpoise	Baltic Sea Schleswig-Holstein	4	4	Unknown, gill net likely	none
Harbour porpoise	Baltic Sea Mecklenburg-Prepommerania	3	3	gill net	none

7.2 Earlier years' statistics

There were no corrections to statistics presented in earlier years

8. Strandings in 2002

Species	Total	North Sea Lower Saxony	North Sea Schl.-Holstein	Baltic Schl.- Holstein	Baltic Mec.-Prepomm.
Harbour porpoise	129	31	51	24	23
Sperm whale	3	0	3	0	0
White-beaked dolphin	2	1	1	0	0
Minke whale	1	0	0	0	1

*) Three harbour porpoises were of unknown origin

9. Other studies and analyses

Species	Area/stock	Type of investigation	Contact address *)
Harbour porpoise	North Sea/Baltic Sea/North Atlantic	Stock structure, genetics	R. Tiedemann
Harbour porpoise	North Sea, Belts, Baltic Sea	stock discrimination, skull morphometrics	S. Huggenberger, H. Benke
Harbour porpoise	North Sea/Baltic	Pathology, life history, toxicology, stock identity, habitat use, telemetry, Impact of sounds	U. Siebert
Harbour porpoise	North Sea	Histological, anatomical investigation of the nasal	S. Prahl

		diverticula, ear pathology	
Harbour porpoise	North Sea/Baltic	Distribution and abundance	M. Scheidat
Harbour porpoise	North Sea/Baltic	Habitat use	A. Gilles
Harbour porpoise	North Sea/Baltic	Impact of sounds	K. Lucke
Harbour porpoise	North Sea, Baltic	Acoustic surveys, porpoise detectors (PODs)	U. Verfuss
Harbour porpoise	North Sea	Acoustic surveys, porpoise detectors (PODs)	S. Ludwig
Harbour porpoise	Baltic	Telemetry	R. Wilson
Harbour porpoise	North Sea/Baltic	Pathology, Immunology	S. Fonfara
Harbour porpoise	North Sea/Baltic	Pathology	I. Hasselmeier
Harbour porpoise	North Sea/Baltic	Parasitology	K. Lehnert
Harbour porpoise	North Sea/Baltic	Toxicology, Immunology	K. Das
Harbour porpoise	North Sea/Baltic	Incidental sightings, data bases	M. Ludwig
Cetaceans general	worldwide	Morphology, Histology	M. Haas-Rioth
Dolphins	worldwide	Structure cervical region	N. Kappesser
Toothed whales	worldwide	Sound emission	S. Huggenberger
Marine mammals general	worldwide	Brain, embryonal development	H. Oelschläger
Cetaceans general	worldwide	Ear	L.S. Kossatz
Toothed whales	worldwide	neocortex	O. Güntürkün, M. Haas – Rioth, H. Oelschläger

* Contact addresses see section 12

History of Whaling

Studies on the history of whaling were continued under the auspices of the 'Deutsches Schiffahrtsmuseum' and associated researchers and groups and dealt primarily with medieval whaling in northern Europe.

contact address: U. Schnall, K. Barthelmess, Deutsches Schiffahrtsmuseum. Hans Scharoun Platz 1, D-27568 Bremerhaven.

10. Literature cited

None

11. Publications (excluding IWC volumes)

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Richardson, M.K., Oelschläger, H.H.A. 2002. Time, pattern and heterochrony: a study of hyperphalangy in the dolphin embryo flipper.. Evol. Develop. 4: 1 - 10

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porpoises (*Phocoena phocoena*) from the German Baltic Sea and Inner Danish waters. Vet. Rec. 150: 273 - 277

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12. Contact addresses

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