

NETHERLANDS PROGRESS REPORT ON CETACEAN RESEARCH, MAY 2001 TO MAY 2002, WITH STATISTICAL DATA FOR THE CALENDAR YEAR 2001

Compiled by Peter J.H. Reijnders

ALTERRA-Marine and Coastal Zone Research

P.O. Box 167, 1790 AD Den Burg, The Netherlands

This report summarises information obtained from: Alterra-Marine and Coastal Research (Alterra), the Harderwijk Marine Animal Park (HMAP), the Leiden Center for Environmental Sciences (CML), the Netherlands Institute for Sea Research/Nederlandse Zeevogelgroep/Camphuysen Seabird Research *Consultancy* (NIOZ/NZG/CSR), the National Museum of Natural History (Naturalis: NMNH).

1. Species and stocks studied

Scientific name	Common name	Area/stock(s)	Items referred to
<i>Balaenoptera acutorostrata</i>	Minke whale	North Sea	2.1.1
<i>Balaenoptera musculus</i>	Blue whale	Greenland Sea	2.1.1
<i>Balaenoptera physalus</i>	Fin whale	North Sea	2.1.1
<i>Cephalorhynchus heavisidii</i>	Heaviside's dolphin	SW Africa	2.1.1
<i>Delphinus delphis</i>	Common dolphin	SW Africa, North Sea	2.1.1
<i>Globicephala macrorhynchus</i>	Short-finned Pilot whale	Red Sea	2.1.2
<i>Globicephala melas</i>	Long-finned pilot whale	SW Africa	2.1.1
<i>Grampus griseus</i>	Risso's dolphin	SW Africa	2.1.1
<i>Lagenorhynchus acutus</i>	White-sided dolphin	North Sea	2.1.1, 9
<i>Lagenorhynchus albirostris</i>	White-beaked dolphin	North Sea	2.1.1, 8
<i>Mesoplodon spec.</i>	Beaked whale	SW Africa	2.1.1
<i>Phocoena phocoena</i>	Harbour porpoise	North Sea	2.1.1, 8, 9
<i>Physeter macrocephalus</i>	Sperm whale	SW Africa, Indian Ocean	2.1.1, 2.1.2
<i>Pseudorca crassidens</i>	False killer whale	Red Sea, Indian Ocean	2.1.2
<i>Stenella attenuata</i>	Pantropical spotted dolphin	SW Africa, Red Sea,	2.1.1, 2.1.2
<i>Stenella coeruleoalba</i>	Striped dolphin	SW Africa, Red Sea	2.1.1, 2.1.2
<i>Stenella longirostris</i>	Long-snouted Spinner dolphin	Red Sea, Indian Ocean	2.1.2
<i>Tursiops truncatus</i>	Bottlenose dolphin	SW Africa, Red Sea, North Sea	2.1.1, 2.1.2
<i>Ziphius cavirostris</i>	Cuvier's beaked whale	SW Africa	2.1.1

2. Sightings data

2.1 Field work

2.1.1 SYSTEMATIC

Ship-based surveys between Walvisbaai (Namibia) via Walvisridge towards Cape Town (South Africa) and off Cape Town reaching the Agulhas Current, including transects perpendicular to the shelf and upwelling system off Namibia and South Africa, February-March 2001 (NIOZ/CSR).

The monitoring programme "coastal seawatches" to register the occurrence of harbour porpoises and other cetaceans in Dutch coastal waters was continued (NZG/CSR).

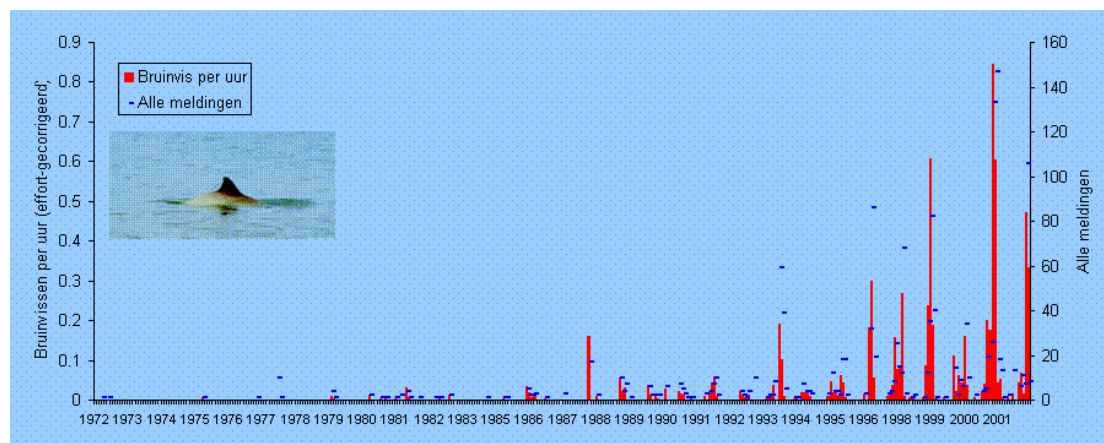
Top-predator observations (seabirds and marine mammals) in connection to acoustic herring surveys in June-July 2001, sailing a network grid off the Scottish east coast (53-59°N, coast – 2°E).

Continuation of the Marine Mammal Database (database of sighting records in the North Sea) including the establishment of web pages with features to be used for the identification of cetaceans and lists of recent sightings and images of marine mammals :

<http://home.planet.nl/~camphuys/Cetacea.html>.

Total number of records in the database 1960-2000 (51-60°N, 4°W-12°E): 7420 records, 15 species, 18 097 individuals. Total number of records in the database 2001 in Dutch waters (51-56°N, 2°E-7°E): 172 records, 5 species, 569 individuals. Species observed in 2001 in Dutch waters (51-56°N, 2°E-7°E): *Balaenoptera physalus*, *Balaenoptera acutorostrata*, *Delphinus delphis*, *Lagenorhynchus albirostris*, *Phocoena phocoena* (CSR).

Recent trends in harbour porpoise sightings in Dutch coastal waters (monthly numbers per hour during systematic seawatches (bars) and total number of recorded cases (dots) show a gradual increase in spring sightings (Bruinvis per uur = porpoises/hr; Alle meldingen = total number recorded; vertical axis left: number of porpoises per hour (effort-corrected); vertical axis right: total number recorded).



(CSR).

2.1.2 OPPORTUNISTIC, PLATFORMS OF OPPORTUNITY

Sightings survey Red Sea and adjacent waters, April-May 2001 (NMNH)

<i>Globicephala macrorhynchus</i>	Short-finned pilot whale	Red Sea
<i>Stenella attenuata</i>	Pantropical spotted dolphin	Red Sea
<i>Feresa/Peponocephala</i>	"Blackfish"	Red Sea, Gulf of Aden
<i>Grampus griseus</i>	Risso's dolphin	Red Sea, Gulf of Aden
<i>Tursiops truncatus</i>	Bottlenose dolphins	Red Sea
<i>Stenella coeruleoalba</i>	Striped dolphin	Gulf of Aden
<i>Stenella longirostris</i>	Spinner dolphin	Gulf of Aden, Indian Ocean
<i>Physeter macrocephalus</i>	Sperm whale	Gulf of Aden, Indian Ocean

7. Statistics for small cetaceans

7.1 For the calendar year 2000

No data received

8. Strandings

The focal institution in the Netherlands for live strandings is HMAP, for dead animals NMNH.

9. Other studies and analyses

Bycatch assessment and bycatch prevention

The Harderwijk Marine Animal Park has continued studies to mitigate bycatch of small cetaceans in fisheries. The following studies are carried out: 1) Target detection in noise by harbour porpoises, 2) The effect of ultrasonic pingers on harbour porpoises (HMAP).

Pollution

The co-ordination of the IWC-Research Programme to Investigate Pollutant Cause-effect Relationships in Cetaceans- POLLUTION 2000+, has been continued. Analyses on biopsy-dart as well as capture

release sampling have been carried out on bottlenose dolphins from Sarasota Bay (Florida). The harbour porpoise post-mortem calibration project has progressed and sampling from freshly dead animals has been successfully accomplished and samples are currently analysed (co-ordination Alterra).

The EC-funded research project, BIOCET (BIOaccumulation of persistent organic pollutants in small CETaceans in European waters: transport pathways and impact on reproduction) is in its second year at the NMNH. Aim is to study the relation between pollutant burden, reproductive success and pathology in *Phocoena phocoena*, *Delphinus delphis*, (main species), *Tursiops truncatus* and *Stenella coeruleoalba* (additional species). The countries involved in the project are Scotland, France, Ireland, The Netherlands and Spain. The Netherlands' part of the BIOCET project is focused on the harbour porpoise.

Pathology, life history

Studies of the pathology, virology, life history and stomach contents of stranded, and a few bycaught, white-beaked dolphins and harbour porpoise were continued. The animals were dissected and sampled for future research. Suitable harbour porpoises were studied as part of the afore mentioned BIOCET programme (NMNH).

Registration of strandings was continued (NMNH).

Photo-id catalogue

In November 2001 the project Europhlukes started. It is funded by the European Commission and is a concerted action in the Fifth Framework Programme. The first objective is to bring together European photo material of cetaceans and to develop a photo-ID system, allowing retrieval by visual characteristics of an individual cetacean. The second objective is to initiate a European network of providers and end-users of the European Cetacean Photo-ID system, to ensure continued addition and use of the material and continued maintenance of the (meta) databases. The project will run for 36 months and has a total effort of 145 personmonths. The consortium consists of 14 partners from eight countries (co-ordination CML).

11. Publications

11.1 published

- Aguilar, A., A. Borrell & P.J.H. Reijnders 2002. Geographical and temporal variation in levels of organochlorine contaminants in marine mammals. *Mar. Environm. Res.* 53: 425-452.
- Addink, M.J. & Smeenk, C. 2001. Opportunistic feeding behaviour of rough-toothed dolphins *Steno bredanensis* off Mauritania. - *Zoologische Verhandelingen Leiden* 334: 37-48.
- Aguilar, A., A. Borrell & P.J.H. Reijnders 2002. Geographical and temporal variation in levels of organochlorine contaminants in marine mammals. *Mar. Environm. Res.* 53: 425-452.
- Camphuysen C.J. 2001. Häufigkeit und räumliche Verteilung der Vögel und Meeressäuger nach Planbeobachtungen nordöstlich von Helgoland, zwischen Scharhörn und Amrum Grund (Deutsche Bucht). CSR Consultancy Report 2001.001, CSR Consultancy, Oosterend, Texel, 34pp.
- Camphuysen C.J. 2001. Häufigkeit und räumliche Verteilung der Vögel und Meeressäuger nach Planbeobachtungen nordwestlich von Helgoland. CSR Consultancy Report 2001.04, CSR Consultancy, Oosterend, Texel, 34pp.
- Camphuysen C.J. 2001. Meldingen van walvisachtigen in Nederlandse wateren (Marine Mammal Database). *Nieuwsbr. NZG* 3(1): 6-7.
- Camphuysen C.J. 2001. Distribution and relative abundance of seabirds and marine mammals in selected areas of the German Bight: west of Scharhörn and west of Sylt. CSR Consultancy report 2001.17, Oosterend, Texel, 20pp.
- Camphuysen C.J. 2001. Zeevogels en zeezoogdieren in de Nederlandse Noordzee, op basis van tellingen vanaf schepen (ESAS database 3.0). CSR Consultancy report 2001.19, Oosterend, Texel, 18+IIIpp, 36 Figs..
- Camphuysen C.J. 2001. Feeding behaviour and foraging interactions of seabirds and marine mammals in the NW North Sea, summer 2001. IMPRESS Report 2001-002, Netherlands Institute for Sea Research, Den Burg, Texel, 18pp.
- Camphuysen C.J. 2001. Häufigkeit und räumliche Verteilung der Vögel und Meeressäuger nach Planbeobachtungen - östliche Deutschen Bucht -. CSR Consultancy Report 2001.21, CSR Consultancy, Oosterend, Texel, 33pp.
- Camphuysen C.J. 2001. Häufigkeit und räumliche Verteilung der Seevögel im und um das Windparkplanungsgebiet "Sandbank 24" (östliche Nordsee). CSR Consultancy Report 2001.20, CSR Consultancy, Oosterend, Texel, 22pp.

- García Hartmann, M. (ed.) 2001. Proceedings of the third ECS workshop on cetacean pathology. Lung pathology. Held in Lisbon, 14 March 1996. - European Cetacean Society Newsletter, 37 (special issue): 1-53, figs 1-14.
- García Hartmann, M. 2001. Introduction: 4-5. In: M. García Hartmann (ed.). Proceedings of the third ECS workshop on cetacean pathology. Lung pathology. Held in Lisbon, 14 March 1996. - European Cetacean Society Newsletter, 37 (special issue).
- Kastelein, R.A., de Haan, D., Vaughan, N., Staal, C. and Schooneman, N.M. (2001) The influence of three acoustic alarms on the behaviour of harbour porpoises (*Phocoena phocoena*) in a floating pen. *Marine Environmental Research*, 52, 351-371.
- Kastelein, R.A., Vaughan, N., Walton, S. and Wiepkema, P.R. (2002) Food intake and body measurements of Atlantic bottlenose dolphins (*Tursiops truncatus*) in captivity. *Marine Environmental Research* 53, 199-218.
- Kastelein, R.A. (2001) Walrus (*Odobenus rosmarus*). In: Encyclopedia of Marine Mammals. Editors: W.F. Perrin, J.G.M. Thewissen and B. Würsig. Academic press, 1294-1300.
- Knieriem, A. & García Hartmann, M. 2001. Comparative histology of lungs from by-caught Atlantic white-sided dolphins (*Leucopleurus acutus*). - *Aquatic Mammals* 27: 73-81.
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- Kompanje, E.J.O., 2001. Review of strandings and catches of *Tursiops truncatus* (Mammalia: Cetacea, Odontoceti) in the Netherlands between 1754 and 2000. - *Deinsea* 8: 169-224.
- Kompanje, E.J.O. & García Hartmann M. 2001. Intraspongious disc herniation (Schmorl's node) in *Phocoena phocoena* and *Lagenorhynchus albirostris* (Mammalia: Cetacea, Odontoceti). - *Deinsea* 8: 135-141.
- Reeves, R.R. & P.J.H. Reijnders 2002. Conservation and Management. In: A.R. Hoelzel (ed.), *Marine Mammal Biology: An evolutionary approach*. Blackwell Science, Oxford, 388-415.
- Reijnders, P.J.H. & A. Aguilar 2002. Pollution and Marine Mammals. In: W.F. Perrin, B. Würsig & J.G.M. Thewissen, *Encyclopedia of Marine Mammals*. Academic Press, San Diego, 948-956.
- Reijnders, P.J.H. & C.J.F.M. van Dam & C.M. Bisseling 2001. Zeezoogdieren, Ecosysteendoel 9. In: C.M.Bisseling (red.), *Met de natuur in zee: Rapportage project "Ecosysteendoelen Noordzee"*, kennisfase. Rapport Expertise Centrum LNV nr 48, Wageningen, p. 65-71. ISSN1568-1912.
- Rudolph, P. & Smeenk, C. 2002. Indo-West Pacific marine mammals: 617-625. In: W.F. Perrin, B. Würsig & J.G.M. Thewissen. *Encyclopedia of marine mammals*. Academic Press, San Diego.
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