

NETHERLANDS PROGRESS REPORT ON CETACEAN RESEARCH, MAY 2004 TO MAY 2005, WITH STATISTICAL DATA FOR THE CALENDAR YEAR 2004

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This report summarises information obtained from: Alterra–Marine & Coastal Zone Research (Alterra), the Royal Netherlands Institute for Sea Research (NIOZ), the National Museum of Natural History Naturalis (NMNH), the Sea Mammal Research Company (SEAMARCO).

1. Species and stocks studied

Southern right whale	<i>Balaena glacialis australis</i>	South Africa	2.1.2
Blue whale	<i>Balaenoptera musculus</i>	Bay of Biscay	2.1.1
Fin whale	<i>Balaenoptera physalus</i>	Bay of Biscay	2.1.1,4.3,8
Sei whale	<i>Balaenoptera borealis</i>	Bay of Biscay	2.1.1
Minke whale	<i>Balaenoptera acutorostrata</i>	Bay of Biscay, North Sea	2.1.1
Sperm whale	<i>Physeter macrocephalus</i>	Bay of Biscay	2.1.1,4.3,8
Humpback whale	<i>Megaptera novaeangliae</i>	North Sea	4.3,8
Cuvier's whale	<i>Ziphius cavirostris</i>	Bay of Biscay	2.1.1
unidentified beaked whale	<i>Mesoplodon spec.</i>	Bay of Biscay	2.1.1
Long-finned Pilot whale	<i>Globicephala melas melas</i>	Bay of Biscay	2.1.1
Indian Humpback dolphin	<i>Souza plumbea</i>	South Africa	2.1.2
Bottlenose dolphin	<i>Tursiops truncatus</i>	Bay of Biscay, North Sea	2.1.1,2.1.2
Indo-Pacific Bottlenose dolphin	<i>Tursiops aduncus</i>	South Africa	2.1.2
Striped dolphin	<i>Stenella coeruleoalba</i>	Bay of Biscay	2.1.1,4.3,8
Common dolphin	<i>Delphinus delphis</i>	Bay of Biscay	2.1.1
White-beaked dolphin	<i>Lagenorhynchus albirostris</i>	North Sea	2.1.1,4.3,4.4,8
White-sided dolphin	<i>Lagenorhynchus acutus</i>	North Sea	2.1.1,4.3,8,
Risso's dolphin	<i>Grampus griseus</i>	Bay of Biscay	2.1.1
Harbour porpoise	<i>Phocoena phocoena</i>	Bay of Biscay, North Sea	2.1.1,2.2, 4.3,4.4,7.1,8,9
Blainville's beaked whale	<i>Mesoplodon densirostris</i>	North Sea	4.3,8

2. Sightings data

2.1 Field work

2.1.1 SYSTEMATIC

Systematic ship-based seabird and marine mammal surveys were conducted 28 June-17 July 2004 in the NE North Sea as part of the annual herring acoustic survey. The technique deployed was the line-transect technique and cetaceans were detected by eye. Transects ran perpendicular to the UK east coast, between Orkney and Humber. Some results are included in Camphuysen (2004)

In conjunction with TNO Defence, Security and Safety, a sightings survey was conducted, 17-23 September 2004, between Den Helder (The Netherlands), via The French Channel into the Bay of Biscay (final port of call Porto, Pt). In this particular cruise, advanced acoustic devices (*Delphinus* and *CAPTAS* arrays) were deployed to detect and record marine mammals (with emphasis on *Ziphius cavirostris*). The observations on board were meant to identify acoustically detected cetaceans and vice versa to record and detect cetaceans that were detected visually (Beerens *et al.* 2005). (NIOZ)

The Marine Mammal database (Nederlandse Zeevogelgroep) was maintained and received 996 submissions (i.e. reported sightings), the highest number of records since 1999 (2000 271, 2001 420, 2002 553, 2003 913 sightings). Recent sightings are published on the internet:

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

Systematic ship-based surveys have been carried out off the Dutch North Sea coast from November 2003 till February 2004. Maximum numbers observed, in February 2004, amounted to 3,220 harbour porpoises (Brasseur *et al.* 2004), representing a density of 3.6 porpoises/km² (Alterra).

2.1.2 OPPORTUNISTIC, PLATFORMS OF OPPORTUNITY

Between 8-10 October 2004, opportunistic sightings of cetaceans were collected from coastal vantage points between Cape Point (Cape Town) and Mosselbaai, South Africa (NIOZ).

In August and September 2004, unusual observations have been made of larger groups of bottlenose dolphins entering the Dutch Wadden Sea between Den Helder and the Isle of Texel (Leopold 2004, Camphuysen 2005). The total numbers (including calves) are estimated in both cases to amount to at least 100 animals (Alterra, NIOZ).

2.2 Analyses/development of techniques

Harbour porpoise sightings in the Southern North Sea between 1970 and 2004 were analysed and published. A 41% per annum increase in effort-corrected sightings between 1991 and 2004 was found, indicating a distributional shift rather than population growth e.g. due to reproductive success (Camphuysen 2005) (NIOZ).

4. Tissue/biological samples collected

4.3 Samples from stranded animals

Species	Area/stock	Calendar year/ season total	Archived (Y/N)	Tissue type(s)*	Contact person/institute
<i>Phocoena phocoena</i>	Dutch coast	213	Y	Skin, liver, blubber, stomach	NMNH, Leiden
<i>Lagenorhynchus alibirostris</i>	Dutch coast	5	Y	Skin, liver, blubber, stomach	NMNH, Leiden
<i>Stenella coeruleoalba</i>	Dutch coast	1	Y	Skin, liver, blubber, stomach	NMNH, Leiden
<i>Physeter macrocephalus</i>	Dutch coast	4	Y	Skin, liver, blubber	NMNH, Leiden
<i>Mesopodops densirostris</i>	Dutch coast	1	Y	Skin, liver, blubber, stomach	NMNH, Leiden
<i>Balaenoptera physalus</i>	Dutch coast	1	Y	Skin, liver, blubber	NMNH, Leiden
<i>Megaptera novaeangliae</i>	Dutch coast	1	Y	Skin, liver, blubber	NMNH, Leiden

4.4 Analyses/development of techniques

Study of stomach contents of white-beaked dolphins stranded on the Dutch coast has started (NMNH)

7. Statistics for small cetaceans

7.1 For the calendar year 2004

Species	Area/stock	Directed catch		Incidental mortality			Live-capture
		Reported	Est. total	Reported	Est. total	Source*	Reported
Harbour porpoise	North Sea	0	0		100	Gillnet	0

8. Strandings

Strandings were recorded by National Museum of Natural History (Naturalis), Leiden.

Most records were of harbour porpoises *Phocoena phocoena* (over 200); further, reports were received of 5 white-beaked dolphins *Lagenorhynchus albirostris*; one striped dolphin *Stenella coeruleoalba*; 4 sperm whales *Physeter macrocephalus*; one Blainville's beaked whale *Mesoplodon densirostris* (first record for the North Sea); one fin whale *Balaenoptera physalus* and one humpback whale *Megaptera novaeangliae*.

9. Other studies and analyses

Bycatch assessment and bycatch prevention

The study on effects of commercially-available acoustic alarms, designed to reduce small cetacean bycatch, on the behaviour of North Sea fish species, has been continued (SEAMARCO).

Pathology, life history

Autopsies were carried out on a number of stranded animals; stomach contents and other samples were collected (NMNH).

Pollution

The implementation of Ohase I of the IWC-Research Programme to Investigate Pollutant Cause-Effect Relationships in Cetaceans – Pollution2000+, has been continued. The bottlenose dolphin part has been completed and publications are submitted/in press. The harbour porpoise post mortem calibration part is in progress and final analyses are underway (co-ordination Alterra)

Wind farms

A project has been carried out to investigate the reference situation (t_0) with respect to occurrence and abundance of cetaceans in a planned wind farm area close to the Dutch North Sea coast. A series of T-PODS has been put out during for one year. The results have been analysed and a clear seasonal pattern could be established in the relative abundance of harbour porpoises in the target area as well as reference areas. Simultaneously, ship-based surveys have been carried out to assess abundance of particularly harbour porpoises in the same areas. A similar seasonal pattern could be established with highest numbers occurring during February-March (Brasseur *et al.* 2004). (Alterra).

10. Literature cited

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- Leopold, M.F. 2004. Grote groepen tuimelaars voor de kust van Noord-Holland en in de westelijke Waddenzee. Nieuwsbrief NZG 5(3): 6-7.

11. Publications

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11.2 Unpublished literature

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