

Agenda Item 5.4: Post-mortem research and stranding schemes

Harbour porpoises on Belgian beaches from 1990 to 1999

Submitted by: Belgium



ASCOBANS

NOTE:
**IN THE INTERESTS OF ECONOMY, DELEGATES ARE KINDLY REMINDED TO BRING
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Harbour porpoises on Belgian beaches from 1990 to 1999

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1. Introduction

The harbour porpoise *Phocoena phocoena* is an animal that is rarely seen in Belgian waters. Anecdotal evidence suggests that it was more common in the first half of the 20th century than today. Strandings data in the Netherlands have been recorded since the 1920ies by Van Deirse, followed in later years by others (see Addink & Smeenk, 1999). In Belgium, a large number of historical stranding data of cetaceans were collected by the Royal Belgian Institute for Natural Sciences (KBIN/IRSNB) and published by De Smet (1974, 1981). From these publications it is clear that strandings of small, inconspicuous and perhaps common cetaceans were usually not documented, whereas the stranding of larger toothed whales or baleen whales received a more widespread media and public attention. Stranding records were only systematically gathered from the late 1970ies by Van Gompel (1991, 1996), while the KBIN/IRSNB coordinated technical interventions and collected specimens. From the late 1980ies data were collected by Van Gompel, the KBIN/IRSNB and the Management Unit of the North Sea Mathematical Models (MUMM).

In 1992 the intervention network *MARIN* (Marine Animals Research and Intervention Network) was established with the aim of meeting specific obligations the Belgian government accepted in the framework of the North Sea Conferences and ASCOBANS. The network is responsible for the scientific investigations of marine mammals and sea birds washed ashore or caught as bycatch in Belgium. Members of the network include:

- the Management Unit of the North Sea Mathematical Models (co-ordination);
- the Royal Belgian Institute of Natural Sciences;
- the Institute for Nature Conservation;
- the University of Liège, department of veterinary pathology;
- the University of Liège, laboratory of oceanology;
- the free University of Brussels (VUB), laboratory of ecotoxicology;
- the veterinary surgeon Dr. John Van Gompel;
- volunteers, coastal communities, National Sea Life Centre,...

2. Strandings of harbour porpoises from 1990 – 1999

In this document, ‘strandings’ comprise animals that come ashore alive as well as dead. It is clear that today most strandings are recorded. This was achieved by informing the public and the coastal communities through information campaigns. Probably only very few strandings of perhaps decomposed, small porpoises were not reported in the past years. Data prior to the 1980ies can be considered less complete.

The data from 1990 to 1999 presented here, suggest that more strandings occurred in 1998 and 1999 than before. From 1990 to 1997, three to six strandings were reported each year. A total of eight strandings was reported in 1998, and a total of eighteen in 1999 (fig. 1). During these last

years, strandings were most common in November and from February to July (fig 2). Most of the animals that stranded in 1998 and 1999 were in the first or second year of their life (length-age distribution according to Lockyer, 1995a). In previous years, relatively more adults had been reported (fig.3).

Necropsies, performed on every animal to an extent depending on its condition, made it clear that most porpoises had been in poor health (Jauniaux et al., 2000, in prep.). The most common findings were lung problems, parasite infestation and emaciation (fig.4; length-weight distribution according to Lockyer, 1995b). A detailed report of necropsy results, including the results of microbiological and toxicological investigations, is in preparation.

Discussion

The high figures of 1998 and 1999 include some decomposed animals, which probably would not have been reported in previous years. Still, from 1997 onwards, a rising number of sightings of harbour porpoises in Belgian waters is reported. An increase of harbour porpoises in Dutch waters has recently been noted by Camphuysen & Leopold (1993), Camphuysen (1994) and Witte et al. (1998). The increase noted in the number of porpoises stranded in Belgium could be coincidental and might partly reflect a better reporting. Given the similarity with the observations in The Netherlands however, it is more likely that the animal was indeed more common in Belgian waters during migration periods from 1997 onwards. This could be due to a growing population size and/or a dispersion of the population towards the southern North Sea, possibly caused by altered food availability or by changing environmental conditions.

The data are only given as information. Any interpretation is premature. Only small numbers of porpoises wash ashore on the Belgian coast, and this number is too small to draw firm, statistically sound conclusions. The data should be compared with other data from the southern North Sea. Next to gathering stranding data, there is a need for research on the actual abundance of the animal throughout the year. This could be done by extending the existing aerial seabird monitoring programme.

REFERENCES

- Addink, M.J. & C.Smeenk, 1999. The harbour porpoise *Phocoena phocoena* in Dutch coastal waters: analysis of stranding records for the period 1920-1994. *Lutra* 41: 55-80.
- Camphuysen, C.J., 1994. The harbour porpoise *Phocoena phocoena* in the southern North Sea. II: a come-back in Dutch coastal waters? *Lutra* 37: 54-61.
- Camphuysen, C.J., & M.F. Leopold, 1993. The harbour porpoise *Phocoena phocoena* in the southern North Sea, particularly the Dutch sector. *Lutra* 36(1): 1-24.
- De Smet, W.M.A., 1974. Inventaris van de walvisachtigen (Cetacea) van de Vlaamse kust en de Schelde. *Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen*, 50(1), 156 p.
- De Smet, W.M.A., 1981. Gegevens over de walvisachtigen (Cetacea) van de Vlaamse kust en de Schelde uit de periode 1969-1975. *Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen*, 54(4), 34 p.
- Jauniaux, T., L.Brosens, D.Petitjean & F.Coignoul, 2000. Postmortem examination of harbour porpoises (*Phocoena phocoena*) stranded along the coasts of Belgium and northern France from 1989 to 1999. Presentation for the XIIIth Annual Conference of the European Cetacean Society, Cork, Ireland, 2-5 April 2000 (in prep.).
- Lockyer, C., 1995a. Investigation of aspects of the life history of the harbour porpoise, *Phocoena phocoena*, in British waters. IN: Bjørge, A. & G.P.Donovan, 1995. *Biology of the Phocoenids*. Report of the International Whaling Commission, Special Issue 16: 189-197.

- Lockyer, C., 1995b. Aspects of the morphology, body fat condition and biology of the harbour porpoise, *Phocoena phocoena*, in British waters. IN: Bjørge, A. & G.P.Donovan, 1995. Biology of the Phocoenids. Report of the International Whaling Commission, Special Issue 16: 199-209.
- Van Gompel, J., 1991. Cetacea aan de Belgische kust, 1975-1989. *Lutra* 34: 27-36.
- Van Gompel, J., 1996. Cetacea aan de Belgische kust, 1990-1994. *Lutra* 39: 45-51.
- Witte, R.H., H.J.M.Baptist & P.V.M.Bot, 1998. Increase of the harbour porpoise *Phocoena phocoena* in the Dutch sector of the North Sea. *Lutra* 40(2): 33-40.

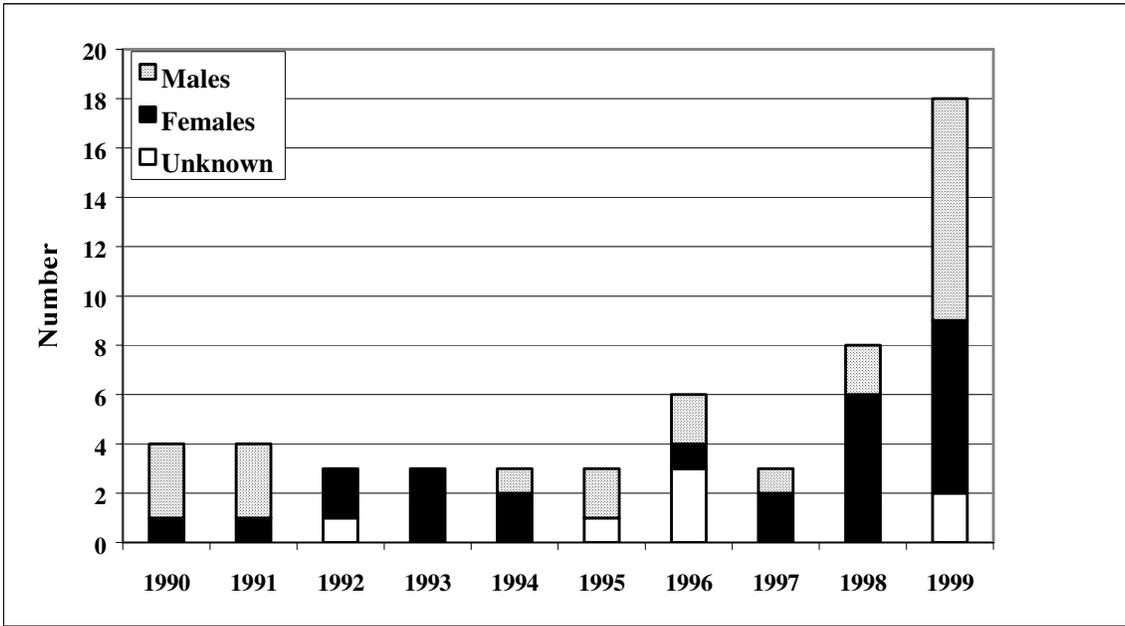


Fig.1: Total number of harbour porpoises stranded in 1990 to 1999

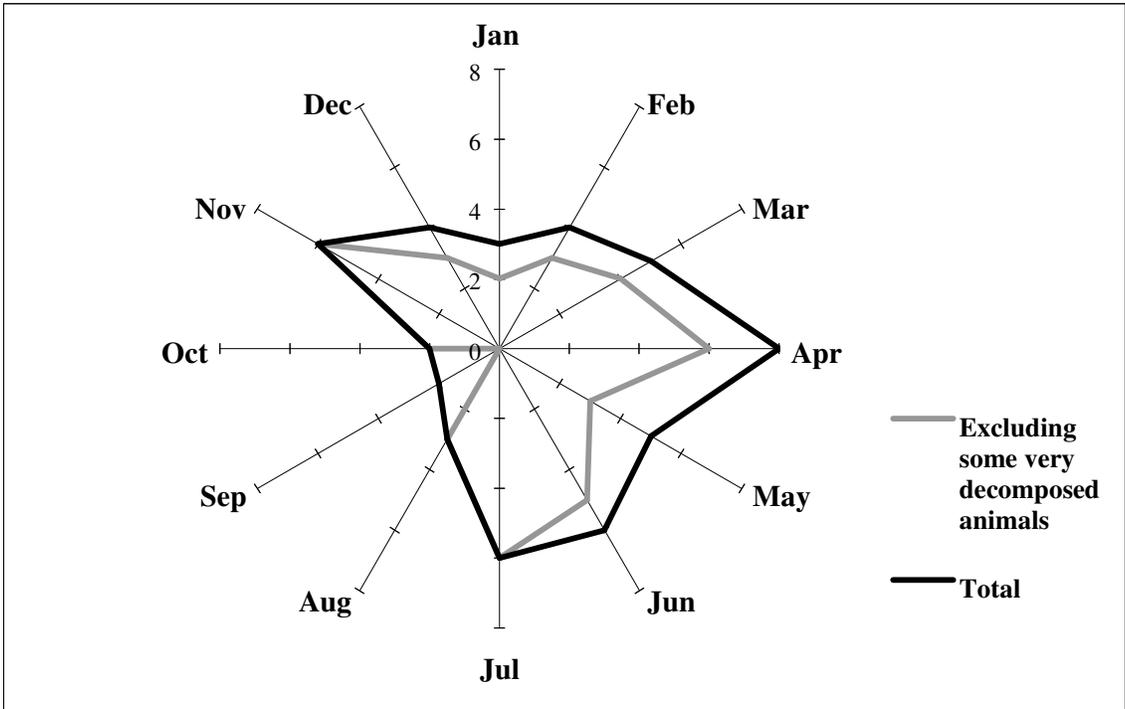


Fig.2: Monthly distribution of strandings (total from 1990 to 1999)

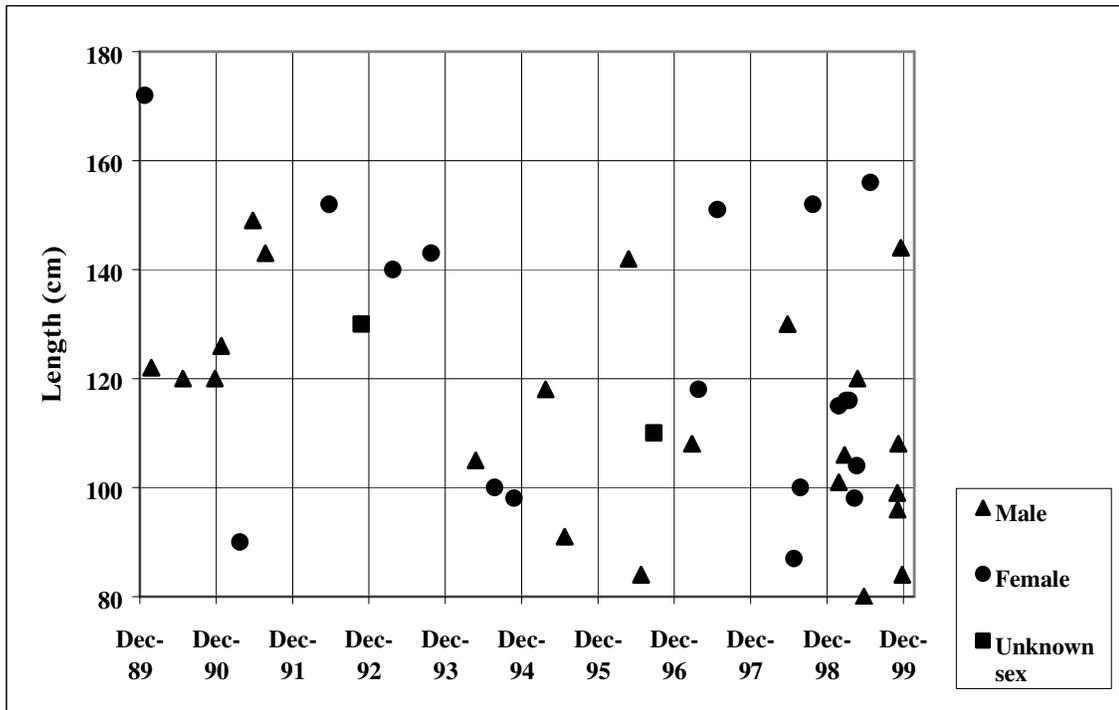


Fig.3: Length of the stranded porpoises from 1990 to 1999

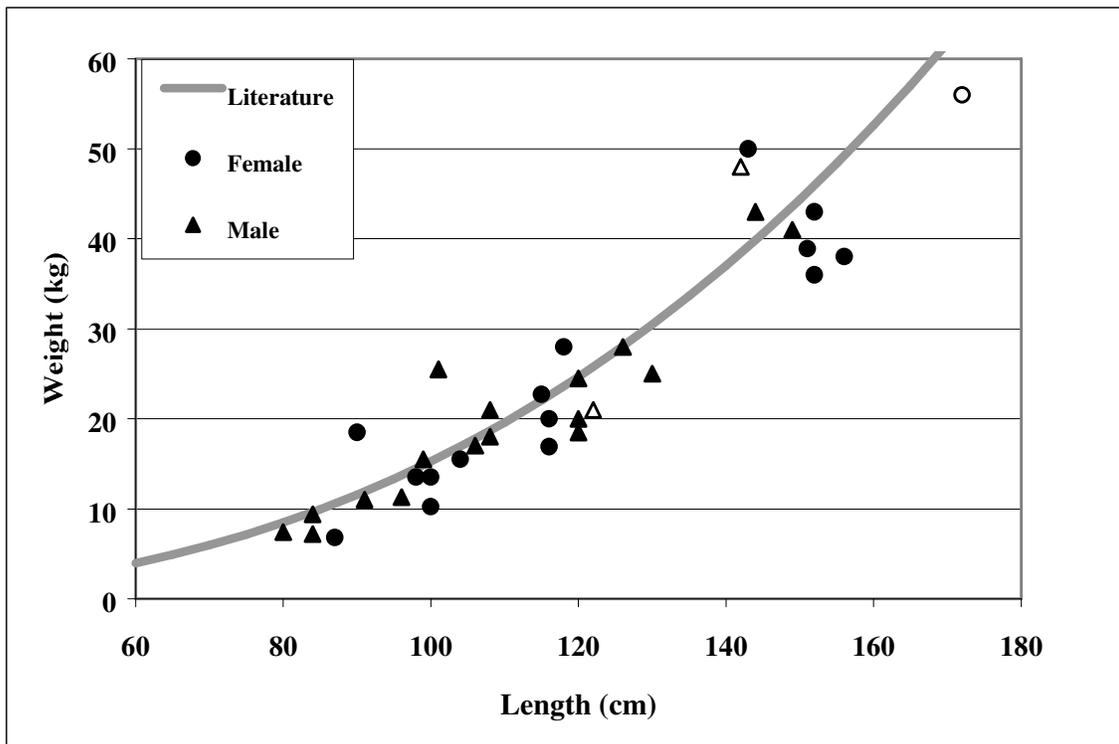


Fig.4: Length - weight relationship of the stranded harbour porpoises. The line indicates the 'normal' length - weight relationship of healthy porpoises, according to Lockyer, 1995b. The open data points indicate bycaught animals (washed ashore or found in nets set from the beach).