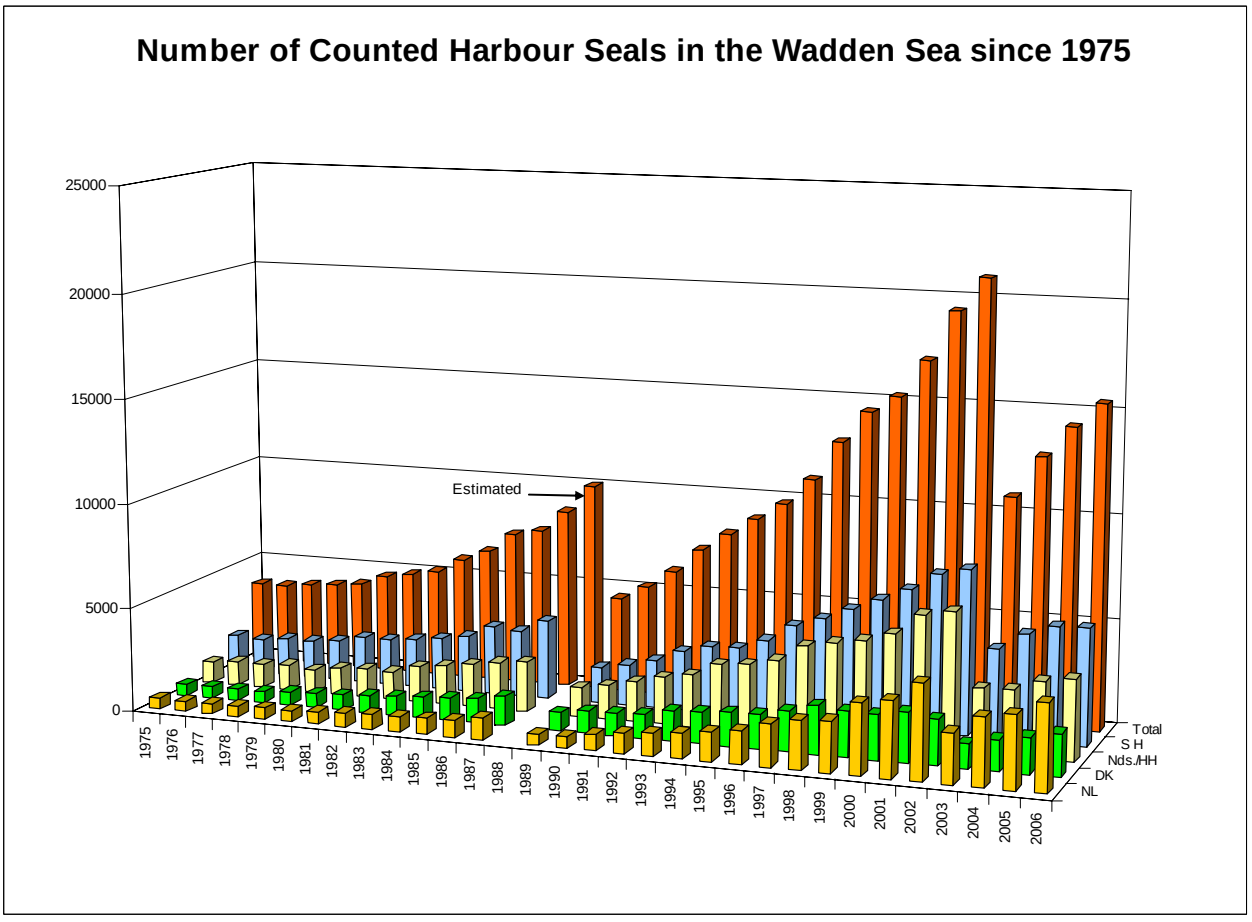
Aerial Surveys of Harbour Seals in the Wadden Sea in 2006: Puzzling Results

by the Trilateral Seal Expert Group (TSEG) (10 October 2006)

As in the foregoing years, in 2006 the surveys to monitor the harbour seal *Phoca vitulina* population in the entire Wadden Sea were coordinated and carried out trilaterally according to the Seal Management Plan. The counts, performed almost simultaneously in the different sub-regions, provided the following results: the maximum number observed in the moulting period (August) amounted to 4,065 in the Netherlands, 3,820 in Niedersachsen/Hamburg, 5,543 in Schleswig-Holstein, and 1,998 in Denmark, bringing the grand total to 15,426 seals. The maximum number of pups observed during the whelping period (June) was 850 in the Netherlands, 1,173 in Niedersachsen/Hamburg, 2,085 in Schleswig-Holstein and 411 in Denmark, bringing the grand total of pups to 4,519. The percentage pups-per-total-number is 29.3%.

The maximum number counted for the entire Wadden Sea is just over 8% higher than counted in 2005, the maximum number of pups observed equals the figure for 2005. Compared to the previous years since the 2002 epizootic, the annual increase continued to slow down from 18.5% in 2003/2004 to 8.1% in 2005/2006.



This is similar to the pattern observed in the first years following the 1988 epizootic. The initial increase was again higher than the average for the entire period 1989-2001. This underlines our previous postulation (Reijnders *et al*., 2003, Abt *et al*., 2005) that the post-epizootic age structure has changed in favor of adult (reproducing) females. The overrepresentation of adult males found dead in 2002 corroborates that assumption. Additional support for that postulation can be deducted from the fact that the ratio of observed numbers in the pupping season to numbers observed in the moult are higher in the post-2002 epizootic years compared to the pre-epizootic period.

The results of the pup counts of this year were puzzling. With an increasing population, it was expected that more pups would be counted than last year. However, the maximum number of pups observed in 2006 was almost equal to the number observed in 2005. We postulate that pup counts in 2006 encompassed a lower fraction of pups actually born than counts in 2003–2005. Unusually low count results in the early pupping season and the relatively late dates of first weaned pups observed, suggested that the pupping season was about one week later in 2006 than in previous years. As a consequence peak numbers would have occurred in the end of June, instead of around 20 June when the surveys were made. This means that counts from both years are not entirely comparable and numbers obtained for this year are more likely an underestimate. The reason for the delay in the 2006 pupping season is presumably the extremely cold spring this year.

Nevertheless, with the presently observed trend in growth, the population may have recovered to the pre-epizootic level by 2008.

References

Abt, Kai, Svend Tougaard, Sophie M.J.M. Brasseur, Peter J.H. Reijnders, Ursula Siebert & Michael Stede 2005. Counting Harbour Seals in the Wadden Sea in 2004 and 2005 – Expected and unexpected results. Wadden Sea Newsletter 2005 (1): 26-27.

Reijnders, Peter J.H., Sophie M.J.M. Brasseur, Kai Abt, Ursula Siebert, Michael Stede & Svend Tougaard 2003. The Harbour Seal Population in the Wadden Sea as Revealed by the Aerial Surveys in 2003. Wadden Sea Newsletter 2003 (2): 11-12.

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