

Aerial surveys of grey seals in the Wadden Sea in the season of 2009-2010 **Fewer animals during the moult, more pups**

Introduction

In the Netherlands, dedicated aerial surveys have been carried out since 2002. From 2006 onwards, aerial surveys of grey seals have been synchronized and coordinated trilaterally within the Wadden Sea. However, this only applies to Germany and the Netherlands as no breeding population of grey seals is present in the Danish part of the Wadden Sea. During summer harbour seal counts, 40 grey seals were observed in Denmark. Like in former years, two surveys are carried out during the moult (March-April). These are supplemented by several aerial or boat counts during the pupping season (November-January). On Helgoland (Germany), surveys are carried out from land.

Results and Interpretation

The maximum number of grey seals counted in the Wadden Sea during the moult amounted to 2,654 animals. Numbers in most areas were lower compared to the previous count. In the Netherlands, 2,036 animals were counted (-4%), in Lower Saxony/Hamburg 184 (-8%), in Schleswig-Holstein 100 (-28%), and 334 on Helgoland (+8%). This was unexpected, as numbers had been growing steadily up until now.

In November-January 2009/2010, the maximum numbers of new-born pups observed in the Wadden Sea of the Netherlands, Lower Saxony/Hamburg, Schleswig-Holstein, and Helgoland was 349, 48, 40, and 80 respectively, brought the total number of pups to 517. These pup numbers are 34% higher than in 2008/2009.

As stated in previous reports, there are strong indications from tracking results of grey seals that the grey seals in the Wadden Sea do not form a closed population. Numbers counted are, besides changes in the "resident" stock, also at least partially, dependent on seals traveling back and forth from the United Kingdom. Changes in the numbers counted during the moult could therefore also be a result of changes in the numbers coming from the UK. Right now it is not possible to explain or value this rather sudden change in migration in the North Sea.

However, the rather impressive increase in reproduction indicates that there is a steadily growing breeding population in the Wadden Sea. Like in the winter of 2008/2009 there were no storms that would have flushed the grey seal pups off the sandbanks. Most probably the pup counts were hardly influenced by weather conditions. In the near future, specific population parameters such as survival rates, female fertility and immigration should be determined to assess the true size of this breeding population.

As the breeding population continues to grow, the relative importance of the influx of animals from the UK will lessen and grey seal numbers in the Wadden Sea might show less dependence on the developments elsewhere in the North Sea region.

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