

Aerial surveys of grey seals in the Wadden Sea in the season of 2010-2011 **Continued growth, through birth and immigration**

Introduction

Since the beginning of the trilateral cooperation of the seal experts in 1991, grey seal numbers have grown significantly and grey seals are considered an important part of the biodiversity of the Wadden Sea. From 2006 onwards, aerial surveys of grey seals have been synchronized and coordinated trilaterally within the Wadden Sea. Despite the apparent growth in numbers in Denmark to a maximum of 57 animals counted in summer, despite the observation of pups, still no births have been documented there. The pups could have come from the German colonies. Dedicated grey seals surveys are only carried out in Germany and the Netherlands. Two aerial surveys are conducted during the moult (March-April) and several aerial or boat counts are conducted 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 3,312 animals. Numbers were higher compared to the previous count in 2010 (+25%). In the Netherlands, 2,388 animals were counted (+17%), in Lower Saxony/Hamburg 238 (30%), in Schleswig-Holstein 133 (+33%), and on Helgoland 553 (+65%).

Most likely, the high increase in numbers for 2011 is partly due to an underestimate in 2010 as a result of environmental conditions in March-April that year rather than an actual increase. Hence, in 2010 a decrease in the numbers counted was observed at several locations. On average, the numbers have increased by 15.5% per year since 2007. This high rate can be explained by bringing immigration from the UK into consideration.

In the Wadden Sea grey seal pups are born in mid-winter. In November-January 2010/2011, the maximum numbers of new-born pups counted in the Wadden Sea of the Netherlands, Lower Saxony/Hamburg, Schleswig-Holstein, and Helgoland were 322, 40, 31, and 100 respectively, bringing an estimate of the total number of pups at 493. These pup numbers are slightly lower than in 2009/2010, and represent some 15% of the maximum numbers of grey seals counted. Compared to harbour seals, this percentage is rather low, but as expected, animals immigrating from the UK might not all participate in the reproduction in the Wadden Sea.

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