

BEACH BIRD SURVEYS IN BELGIUM

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Oil contamination is still a major cause of mortality in many coastal and seabird species around Europe. In a comparison with other North Sea areas, oil rates of most Belgian beached bird species are significantly higher than in northern areas such as the Shetlands and Norway, and more or less in line with oil rates at other European continental coasts. Wrecks of starved oiled guillemots (and other species) became an almost annual event at the North Sea coasts from the first half of the '80s onwards, also in Belgium.

Oil rates of beached bird corpses are an appropriate condition indicator of oil pollution at sea. Oil rate of most bird species/taxa in Belgium indicate a decline in oil pollution for the period 1962-99, though only *Laridae*, guillemot and razorbill show significant reductions. For the other taxa no significant decrease in proportion of oiled birds could be demonstrated, often due to the relatively small study area and hence insufficient number of birds collected. Assuming that a sample of at least ten complete corpses is required to calculate reliable oil rates, only the guillemot (as species) and auks (as taxon) can provide the necessary data in Belgium these days.

Long-term oil pollution monitoring in Belgium should be continued with a major focus on a set of abundant bird taxa, sensitive to oil pollution and occurring in various marine habitats and the collection of additional data during the rest of the winter. Most appropriate for this set of limited bird taxa to focus on are grebes (inshore), *Laridae*, guillemot and razorbill (midshore) and kittiwake and fulmar (offshore).

Birds dying at sea may eventually wash ashore. As such, beached bird surveys can be an important source of information concerning mortality of seabirds in the marine environment. However, there has been a lot of debate on the question how numbers of casualties on beaches relate to the actual mortality at sea and which factors affect this relationship. The temporal patterns of beached birds usually follow those of seabirds at sea with a time lag of at least one month. Considering the short Belgian shoreline and the prevailing frequency distribution of winds, probably only 10% of all birds washing ashore died in Belgian marine waters. With a dominant SSW circulation and a net residual current in northeastern direction, many birds must end up on Dutch, German or Scandinavian beaches. Accordingly, there is a higher probability that Belgian beaches receive birds that died in northern France or south England than from other North Sea border states. Based on the number of birds found on the beach and brought in at the MEC, and taking into account that 50-80 % of the corpses have disappeared already within the first 9 days (the mean interval between succeeding weekly surveys), we estimate that the total number of bird corpses beaching on the Belgian coast each winter might be as high as 5,000-10,000 birds.