# Decline in strandings of oiled seabirds in Gdańsk Bay, Poland

*Afname in strandingen van olieslachtoffers in de baai van Gdańsk, Polen*

Regular beached bird surveys have been carried out in Poland since 1970 (Górski *et al.* 1976). For the Baltic coast and the western part of Gdańsk Bay (figure 1) long series of data are now available. The waterbird research group WRG KULING has studied waterbird strandings in the latter region since 1984 (Brewka *et al.* 1987). About 120 km of coastline were surveyed every three weeks from November to April during 1984/85 to 1986/87. Since 1987, monthly surveys were performed between September and April. Live oiled birds were included in the analysis, but the numbers were negligible. Results of earlier surveys in the Gdańsk Bay region were taken from published sources (Górski *et al.* 1976, 1977, 1979a, 1980). Differences in the spatial planning of surveys between the 1970s and 1980s are shown in figure 1. Numbers of beached birds were expressed as densities (*i.e.* number of birds per kilometer; n/km). In the 1980s, fewer surveys were carried out than in the 1970s, and this factor may influence final results. However, the intervals between surveys in both periods are similar. In the 1970s surveys were carried out throughout the year, but corpse densities between May and August were usually very low (Górski *et al.* 1980). The effect of the removal of corpses and sick birds by people is probably negligible, apart from a 10 km stretch of municipal beach. Dead birds may have been removed by predators, scavengers or may simply have been washed away during high tides or storms.

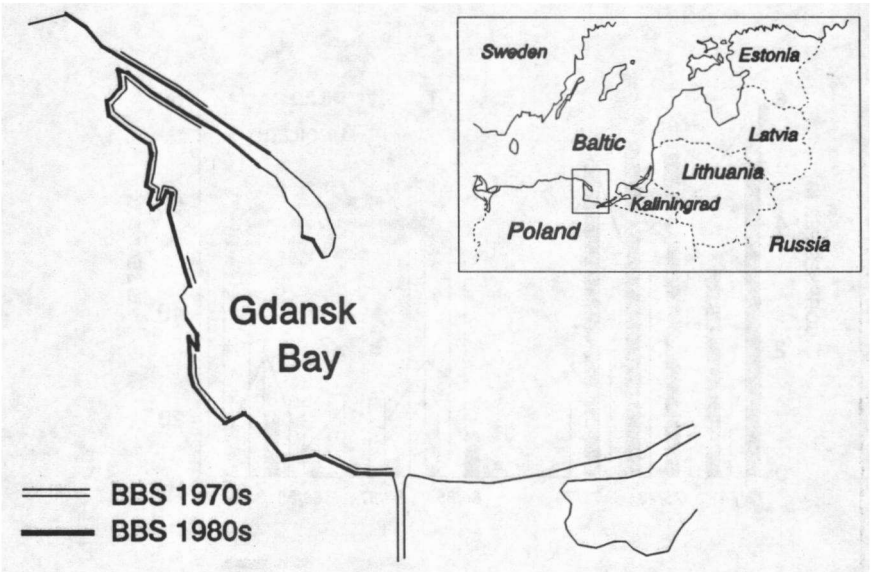


*Figure 1. Study area in Gdańsk Bay in the 1970s and in the 1980s.*
*Figuur 1. Onderzoeksgebied in Gdańsk Bay in de jaren zeventig en tachtig.*

The mean densities of unoiled birds were quite similar in both periods (1.53/km in the 1970s, 2.40/km in the 1980s), while densities of oiled birds declined significantly (4.80/km and 0.56/km respectively; figure 2, bar diagram). The proportion of seaduck (Long-tailed Duck *Clangula hyemalis*, Common Scoter *Melanitta nigra*, and Velvet Scoter *M. fusca*), which are the most common victims of oil pollution in this part of the Baltic, was considerably lower in the 1980s (figure 2, line diagram). These two facts indicate a decline in oil pollution of the Gdańsk Bay region since the early 1980s. Along the Polish Baltic coast, similar changes have been recorded. Górski & Antczak (1990) pointed out that densities of beached birds in this region declined from 26.1/km in the 1960s, to 8.4/km in the 1970s and 0.9/km in the 1980s, while numbers of wintering wildfowl remained largely unchanged. Presently, the main cause of seabird mortality in the Gdańsk Bay region is drowning in fish nets. Of auks, for example, only 6.3% were oiled and at least 56.6% had drowned in nets (Meissner 1989).

In the 1960s and 1970s, oil pollution was a chronic threat off the Polish coast (Górski *et al.* 1979b), but nowadays the situation is different. Penalties

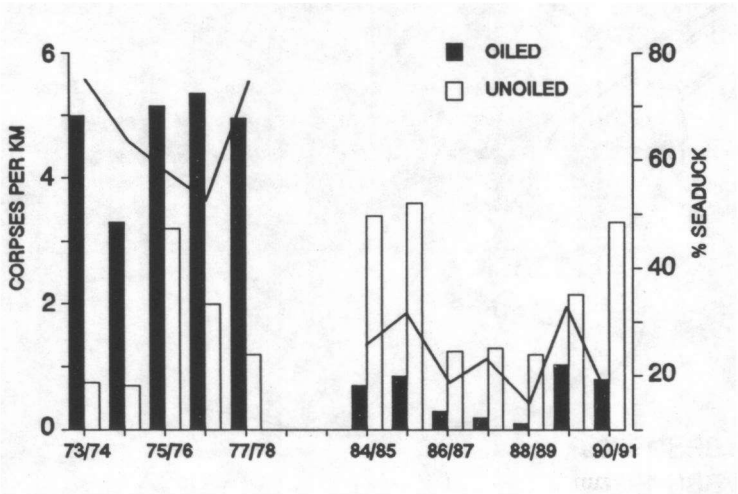


*Figure 2. Beached birds in Gdańsk Bay. Densities and % seaduck.*
*Figuur 2. Gestrande vogels in Gdańsk Bay. Dichtheden en aandeel IJs- en zeeëenden.*

for polluting surface water with oil became more severe and the Polish part of the Baltic is controlled by aircraft. At present, the main sources of oil pollution are leakages in harbours, in shipyards and from ships at sea. Obviously, also the recent economical crisis has caused a decline in oil pollution in Polish waters. However, new dangers have emerged. In 1992, near Rozewie Cape, the Polish oil company '*Petrobaltic*' started offshore oil drilling operations. At this location very large concentrations of Long-tailed Duck are observed every autumn and early winter. Moreover, the effect of a possible accident on the platform can be even more dramatic, because the surface currents run to the east, towards very important wintering areas for waterbirds. The main Polish harbour (North Harbour, near Gdańsk) is the most important wintering site for diving ducks in the Gdańsk Bay region. Until now, only few, small oil slicks have been sighted. It is very hard to predict what will happen during the next few years with respect to oil pollution. A more detailed report about oiled beached birds in the Gdańsk Bay region is currently under preparation.

*Samenvatting Sinds het begin van de jaren zeventig worden in Polen regelmatig olieslachtoffers geteld en voor bijvoorbeeld de Baltische kust en de*

*baai bij Gdańsk zijn nu lange tijdreeksen beschikbaar. In deze bijdrage worden de vondsten uit de jaren zeventig (literatuur) vergeleken met die in de laatste jaren. Opvallend is dat de dichtheid dode vogels ongeveer gelijk gebleven is, maar dat het aandeel met olie besmeurde exemplaren sterk is afgenomen (figuur 2, staafdiagram). Tegelijkertijd nam het aandeel IJseenden* Clangula hyemalis, *Zwarte Zeeëenden* Melanitta nigra *en Grote Zeeëenden* M. fusca, *van oudsher de talrijkste olieslachtoffers, proportioneel af (figuur 2, lijndiagram). De gegevens zijn een indicatie van een verbeterde situatie in de Poolse Oostzee waar het gaat om olievervuiling. De oorzaak wordt gezocht in de intensievere controle en strengere straffen. De belangrijkste doodsoorzaak voor zeevogels voor de Poolse kust is op dit moment verdrinking in visnetten.*

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