

Beached bird surveys in Portugal, 1990/91

Tellingen van dode vogels op de kust in Portugal, 1990/91

On the Portuguese coast, beached bird surveys have been organised since winter 1982/83 (Teixeira 1985a). For winter 1990/91, thirty six stretches (ca. 40 km) of sandy beaches were selected between Nazaré on the west coast and Lagos in the Algarve (figure 1), and these were walked every month, between October 1990 and March 1991. The sample areas were grouped in three sectors, according to their geographical location (figure 1). Only seabirds were considered. Corpses were removed from the beach or permanently dyed to avoid duplicated counts. First winter and first summer plumage Yellow-legged Gulls *L. cachinnans* and Lesser Black-backed Gulls *L. fuscus* were tentatively grouped as *L. cachinnans/fuscus*, since it is rather difficult to distinguish them correctly (Grant 1986). Results were expressed as densities (number of birds found per kilometer).

During the 1990/91 season, 281 corpses of birds were found, 250 (89%) of which were seabirds. Most abundant was the Razorbill *Alca torda* (33.6% of the total number of seabirds found), followed by Gannet *Sula bassana* (19.6%) and first year Yellow-legged/Lesser Black-backed Gulls (14%; table 1). The remaining species were represented by less than 10% of the seabirds found during the surveys (table 1). Most birds were found in sector I (2.43/km; table 2). The other sectors showed rather low densities, resulting in an overall density of 0.96/km. Comparing the 1990/91 results with previous surveys on the Portuguese coast (Teixeira 1986a), it appears that certain species have quite irregular mortality patterns (e.g. first year Yellow-legged/Lesser Black-backed Gulls, Puffin *Fratercula arctica*), while others showed a general trend towards lower densities (e.g. Razorbill, adult Yellow-legged and Lesser Black-backed Gull; figure 2). Only the number of Gannets has shown a slight increase. Although no quantitative measures of oil pollution were obtained from the corpses or beaches in the 1990/91 surveys, the incidence of this type of contamination was estimated as very low, a similar situation to that reported earlier for the 1982-1985 censuses (Teixeira 1986a). Actually, most of the corpses were clean and most cases of contamination observed were probably due to post-mortem contacts with floating oil or solid patches on the shore. The most numerous species found in these surveys was the Razorbill, with up to 82.4% being first year specimens. However, the densities in 1990/91 were much lower than those reported previously (Teixeira 1985b, 1986 a b), possibly because mass mortality caused by entanglement in gillnets seemed to have decreased.

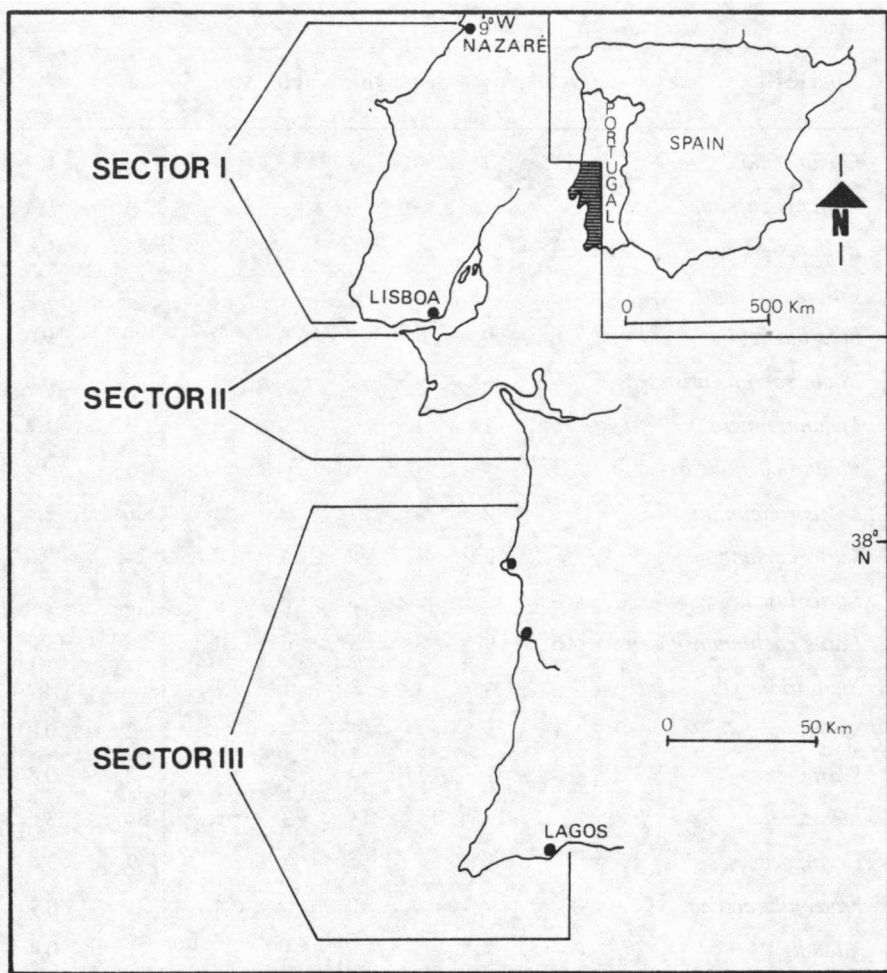


figure 1. Location of sectors I-III on the Portuguese coast, walked during the beached bird surveys in 1990/91.

figuur 1. Plaats van de drie deelgebieden op de Portugese kust, zoals onderzocht in 1990/91.

table 1. Results of the Portuguese beached bird surveys 1990/91.

tabel 1. Resultaten van de Portugese strandtellingen in 1990/91.

Species		Oct	Nov	Dec	Jan	Feb	Mar	Σ	%
<i>Gavia stellata</i>		-	1	-	-	-	-	1	0.4
<i>Puffinus puffinus</i>		1	-	-	-	-	-	1	0.4
<i>Puffinus griseus</i>		1	-	-	-	-	-	1	0.4
<i>Calonectris diomedea</i>		-	1	-	-	-	-	1	0.4
<i>Sula bassana</i>		18	9	7	7	6	2	49	19.6
<i>Phalacrocorax aristotelis</i>		-	-	-	1	-	1	2	0.8
<i>Melanitta nigra</i>		-	1	1	-	-	1	3	1.2
<i>Phalaropus fulicarius</i>		1	-	-	-	-	-	1	0.4
<i>Larus ridibundus</i>		-	2	-	1	2	1	6	2.4
<i>Larus cachinnans</i>		-	2	4	2	4	2	14	5.6
<i>Larus fuscus</i>		-	-	2	3	3	4	12	4.8
<i>Larus cachinnans/fuscus</i>		6	9	8	5	6	1	35	14.0
<i>Rissa tridactyla</i>		-	-	-	3	1	1	5	2.0
<i>Sterna hirundo</i>		1	-	-	1	-	-	2	0.8
<i>Sterna spp.</i>		-	1	1	-	-	-	2	0.8
<i>Alca torda</i>		-	17	15	43	3	6	84	33.6
<i>Uria aalge</i>		-	1	-	4	4	-	9	3.6
<i>Fratercula arctica</i>		-	-	-	1	6	14	21	8.4
<i>Alle alle</i>		-	-	-	-	1	-	1	0.4
Totals	Σ	28	44	38	71	36	33	250	
	%	11.2	17.6	15.2	28.4	14.4	13.2		
	km	44.4	44.6	43.8	44.1	40.9	42.4	259.6	
	n/km	0.63	0.99	0.87	1.61	0.88	0.78	0.96	

table 2. Geographical distribution of seabird corpses on the Portuguese coast in Oct 1990-Mar 1991.

tabel 2. Geografische verspreiding van vondsten op de Portugese kust, okt 1990-mrt 1991.

Species		sector I	sector II	sector III	Σ	%
<i>Gavia stellata</i>		1	-	-	1	0.4
<i>Puffinus puffinus</i>		-	1	-	1	0.4
<i>Puffinus griseus</i>		1	-	-	1	0.4
<i>Calonectris diomedea</i>		1	-	-	1	0.4
<i>Sula bassana</i>		26	16	7	49	19.6
<i>Phalacrocorax aristotelis</i>		2	-	-	2	0.8
<i>Melanitta nigra</i>		1	2	-	3	1.2
<i>Phalaropus fulicarius</i>		1	-	-	1	0.4
<i>Larus ridibundus</i>		-	5	1	6	2.4
<i>Larus cachinnans</i>		11	2	1	14	5.6
<i>Larus fuscus</i>		3	5	4	12	4.8
<i>Larus cachinnans/fuscus</i>		22	9	4	35	14.0
<i>Rissa tridactyla</i>		2	-	3	5	2.0
<i>Sterna hirundo</i>		1	1	-	2	0.8
<i>Sterna spp.</i>		1	1	-	2	0.8
<i>Alca torda</i>		59	17	8	84	33.6
<i>Uria aalge</i>		9	-	-	9	3.6
<i>Fratercula arctica</i>		16	3	2	21	8.4
<i>Alle alle</i>		1	-	-	1	0.4
Totals	Σ	158	65	27	250	
	%	63.2	26.0	10.8		
	km	65.0	95.7	98.2	259.6	
	n/km	2.43	0.68	0.27	0.96	

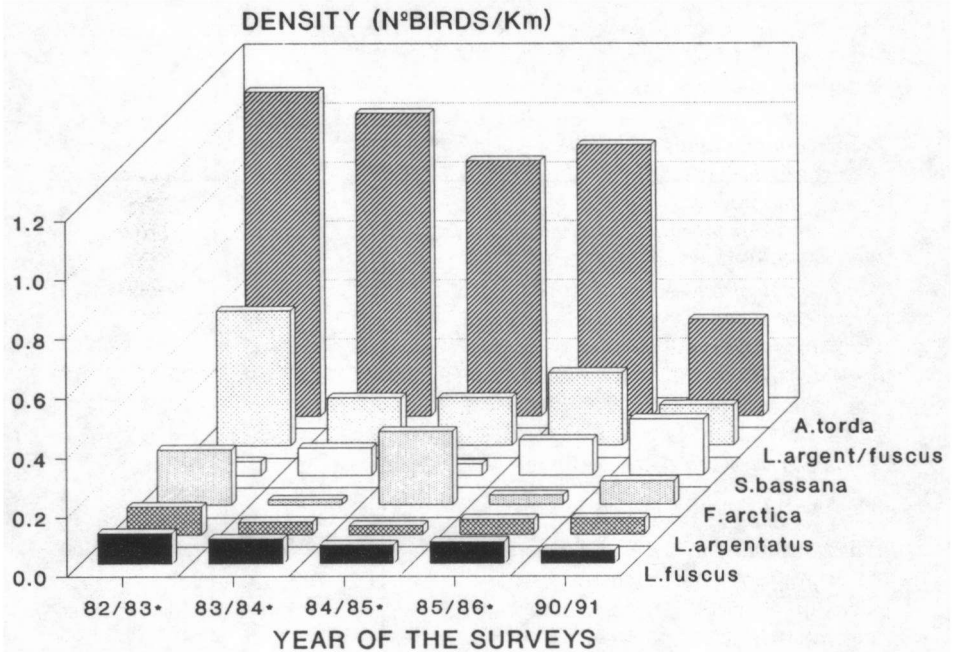


figure 2. Average densities (n/km) of selected species recorded in beached bird surveys winter 1982/83-1985/86 (after Teixeira 1986a) and 1990/91 in Portugal.

figuur 2. Gemiddelde dichtheden (n/km) voor enkele soorten als resultaat van strandtellingen gedurende 1982/83-1985/86 (Teixeira 1986a) en 1990/91 op de Portugese kust.

Most of the strandings were observed in sector I, where most beaches face dominant NW winds. This sector is also close to an important upwelling area off the Portuguese coast (Fiúza 1983), thus offering good feeding opportunities for wintering seabirds. On the contrary, the southern area and especially sector III remains well sheltered from the Atlantic winds, which results in much lower densities of birds. The mortality levels observed in 1990/91 may be considered rather low when compared to similar studies elsewhere in northern and central Europe (Camphuysen 1989). However, it is important to keep up standard long term monitoring procedures, to ensure adequate assessments of the sort and intensity of the seabird strandings. This sort of information is important to identify major threats to seabirds in Portuguese waters, which is crucial for the conservation of our seabirds.

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Samenvatting Sinds de winter 1982/83 worden op de Portugese kust tellingen van dode vogels uitgevoerd. In de winter 1990/91 werden 36 zandstrandjes (totale lengte 40 km), verspreid over de kust tussen Nazaré en Lagos (figuur 1) maandelijks afgezocht. De resultaten zijn gepresenteerd voor 3 deelgebieden. Alken werden het meest gevonden en samen met Jan van Gent en meeuwen maakte deze soort 96% van het totaal aantal gevonden zeevogels uit (n= 250; tabel 1 en 2). De gevonden dichtheden waren voor de meeste soorten lager dan in voorgaande winters (figuur 3). Net als in voorgaande jaren was vrijwel geen enkel exemplaar met olie besmeurd. Vermoed wordt dat tegenwoordig minder Alken in staand want verdrinken. De lage dichtheden maken de tellingen bepaald nog niet overbodig. Het regelmatig vergaren van basisgegevens over de aard, oorzaak en omvang van zeevogelstrandingen is een waardevol hulpmiddel voor een effectieve zeevogelbescherming in Portugal.

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