

Errata for the report "Bird monitoring at offshore wind farms in the Belgian part of the North Sea - assessing seabird displacement effects"

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Tables 2, 3 & 21, Figure 8

Some 1% thresholds given in Tables 2, 3 & 21 are incorrect, and should be the following:

- Northern fulmar - 108,000
- Northern gannet - 9,150
- Great skua - 480
- Common guillemot - 70,500
- Razorbill - 18,000

These figures are based on the number of breeding pairs in the European region as reported by Birdlife International (2004), multiplied by a factor 3 to estimate the number of individuals in the population (Wetlands International 2014). Applying these updated figures shows that – opposed to what is stated in the text and suggested by the graphs in Figure 8 – neither northern gannet nor great skua exceed their 1% threshold in autumn. The updated tables are shown underneath, with the corrected values indicated in red.

Table 2. Seasonal (distance-corrected) numbers residing at the BPNS based on the results of seabird surveys between 2001 & 2007 (summer population indicated by x^S, migratory and/or wintering population by x^M, figures indicated in yellow exceed the 1%-threshold) (threshold values based on Birdlife International 2004 & Wetlands International 2014).

Species	Subspecies / Population	1%-threshold	Mean numbers BPNS 2001-2007			
			Winter	Spring	Summer	Autumn
Red-throated diver	NW Europe (winter)	2,600	966	86	0	209
Diver sp.	-	-	34	1	0	6
Black-throated diver	N Europe & W Siberia	3,500	6	0	0	56
Great crested grebe	NW & W Europe	3,500	1,458	66	1	186
Northern fulmar	Europe	108,000	2,575	1,405	808	8,098
Northern gannet	Europe	9,150	1,799	737	556	4,990
Great cormorant	N & C Europe	3,900	246	86	209	98
Common scoter	ssp. <i>nigra</i>	5,500	1,089	3,656	119	85
Great skua	Europe	480	52	37	109	152
Little gull	C & E Europe	1,100	503	2,128	174	969
Black-headed gull	W Europe	42,100	388	1,289	321	1,442
Common gull	NW & C Europe	16,400	3,599	1,806	19	764
Lesser black-backed gull	ssp. <i>graellsii</i> + <i>intermedius</i>	(5,500 ^S + 3,800) ^M	418	8,595	6,271	3,076
Herring gull	ssp. <i>argenteus</i> + <i>argentatus</i>	(10,200 ^S + 20,100) ^M	1,844	3,124	2,621	874
Great black-backed gull	N & W Europe	4,200	5,092	590	90	3,850
Black-legged kittiwake	E Atlantic	66,000	6,310	542	58	5,015
Sandwich tern	W Europe	1,700	0	627	987	113
Common tern	S & W Europe + N & E Europe	(1,800 ^S + 9,800) ^M	0	2,431	2,638	286
Common guillemot	Europe	78,500	16,121	2,174	3	5,044
Unidentified auk	-	-	1,077	216	0	324
Razorbill	Europe	18,000	2,907	481	0	1,205
Total			46,451	30,077	14,985	36,839

Table 3. Monthly (distance-corrected) numbers residing at the BPNS based on the results of seabird surveys between 2001 & 2007 (summer population indicated by x^S, migratory and/or wintering population by x^M, figures indicated in yellow exceed the 1%-threshold) (threshold values based on Birdlife International 2004 & Wetlands International 2014).

Species	Subspecies/Population	1%-threshold	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Red-throated diver	NW Europe (winter)	2,600	1,874	534	206	36	3	0	0	0	0	37	530	638
Diver sp.	-	-	15	24	3	0	0	0	0	0	0	0	16	74
Black-throated diver	N Europe & W Siberia	3,500	16	0	0	0	0	0	0	0	0	3	160	8
Great crested grebe	NW & W Europe	3,500	1,982	1,330	102	0	94	3	0	0	0	23	482	1,095
Northern fulmar	Europe	108,000	4,717	1,176	2,078	1,226	670	1,580	469	476	550	1,516	(21,842)	5,034
Northern gannet	Europe	9,150	2,025	2,046	1,375	264	541	541	585	548	1,263	7,838	3,345	676
Great cormorant	N & C Europe	3,900	435	92	30	115	124	288	239	104	118	72	102	356
Common scoter	ssp. <i>nigra</i>	5,500	236	1,801	4,970	130	(5,742)	144	71	138	41	64	140	555
Great skua	Europe	480	151	13	68	31	0	0	135	155	147	194	112	76
Little gull	C & E Europe	1,100	260	747	3,365	2,756	28	0	152	374	1,523	1,081	423	224
Black-headed gull	W Europe	42,100	646	334	3,069	89	642	570	138	242	3,279	341	1,010	186
Common gull	NW & C Europe	16,400	6,611	2,530	3,167	2,199	10	17	24	17	181	1,010	1,002	2,235
Lesser black-backed gull	ssp. <i>graellsii</i> + <i>intermedius</i>	(5,500 ^S + 3,800) ^M	86	638	6,532	8,086	11,758	9,262	6,390	3,495	5,500	3,597	513	168
Herring gull	ssp. <i>argenteus</i> + <i>argentatus</i>	(10,200 ^S + 20,100) ^M	2,106	1,873	4,743	2,406	2,105	3,715	2,753	1,424	1,069	411	1,155	1,371
Great black-backed gull	N & W Europe	4,200	(18,739)	1,674	823	710	57	138	20	107	717	2,713	7,855	2,276
Black-legged kittiwake	E Atlantic	66,000	12,390	3,478	1,155	288	91	35	107	33	168	5,105	8,428	6,964
Sandwich tern	W Europe	1,700	0	0	170	966	638	1,522	912	522	383	3	0	0
Common tern	S & W Europe + N & E Europe	(1,800 ^S + 9,800) ^M	0	0	6	2,005	5,294	2,869	2,150	2,776	963	24	0	0
Common guillemot	Europe	78,500	15,067	17,416	5,312	679	24	9	0	0	37	3,773	9,809	13,192
Auk sp.	-	-	702	1,025	465	122	0	0	0	0	0	342	494	1,541
Razorbill	Europe	18,000	2,400	3,303	1,097	220	0	0	0	0	8	1,163	2,211	2,130

Table 21. Estimation of the additional mortality per 10,000 offshore turbines and a micro-avoidance of 97.6%, based on an extrapolation of the CRM results for the Blighbank study area (Birdlife International 2004 ^a, Wetlands International 2013 ^b; BTO 2013 ^c and Poot *et al.* 2011 ^d).

Species	Biogeographical population	Population level	Yearly mortality	Number of collisions	Additional mortality
Northern gannet	NE Atlantic	915,000 ^a	8.1% ^c	182	0.2%
Common gull	NW & C Europe	1,640,000 ^b	14.0% ^c	545	0.2%
LBB gull	<i>ssp. graellsii + intermedius</i>	930,000 ^b	8.7% ^c	11,818	14.6%
Herring gull	<i>ssp. argentatus + argentatus</i>	3,030,000 ^b	12.0% ^c	1,091	0.3%
GBB gull	N & W Europe	420,000 ^b	16.5% ^d	5,091	7.3%
BL kittiwake	NE Atlantic	6,600,000 ^b	5.9% ^c	5,818	1.5%

Figure 37

The legend of Figure 37 was lacking, impeding interpretation:

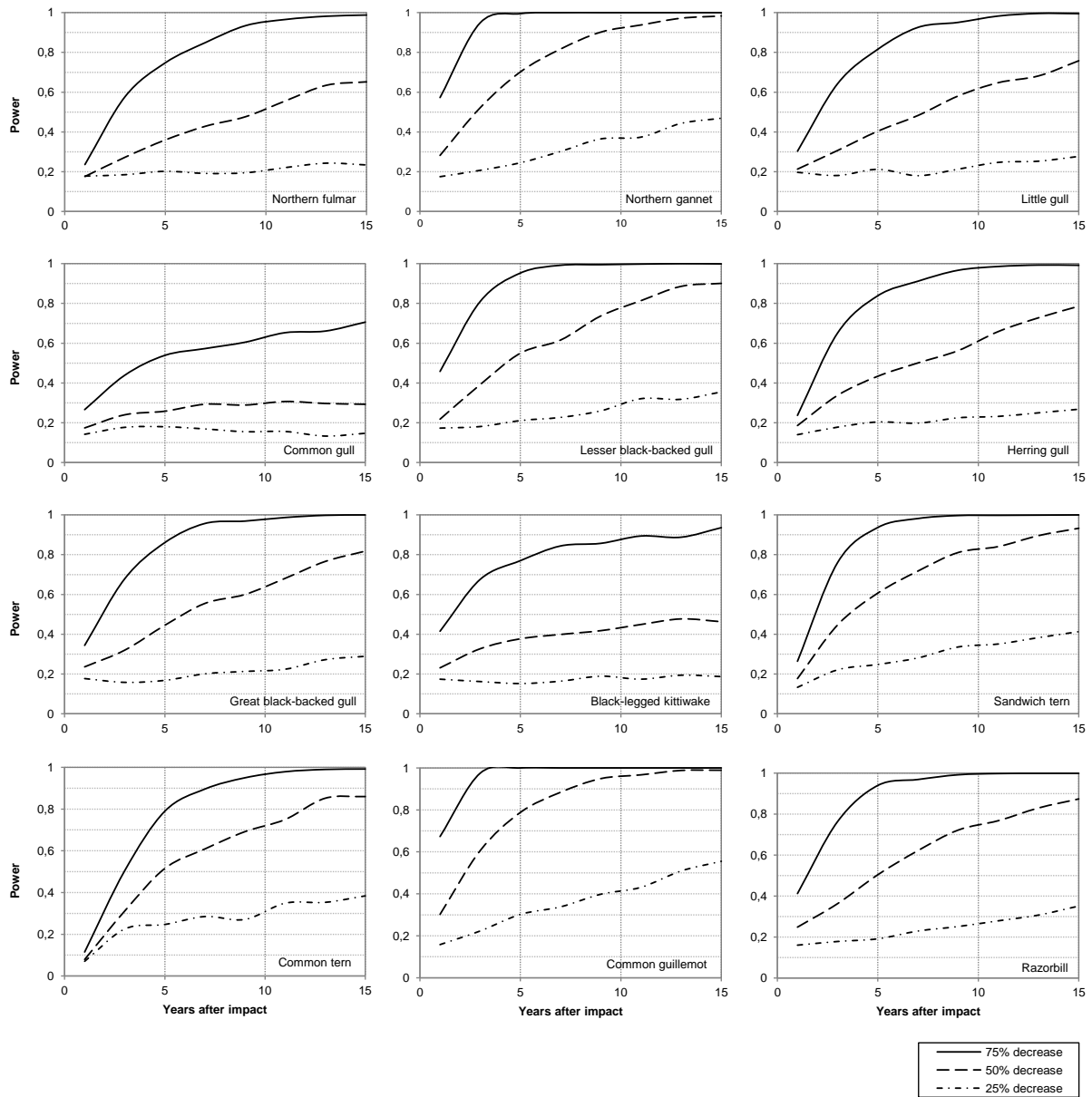


Figure 37. Power results for 12 seabird species for an impact study with a monitoring intensity of one survey of 10 km² per month per area, and 5 years of reference monitoring (significance level = 0.10).

References

BirdLife International 2004. Birds in Europe: population estimates, trends and conservation status. BirdLife International, Cambridge, UK.

Wetlands International 2014. Waterbird Population Estimates. [online] Available at: <wpe.wetlands.org> [Accessed at 10 October 2014]