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Electronic Supplementary Material

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Title: **Management of a Dutch resident barnacle goose *Branta leucopsis* population: How can results from counts, ringing and hunting bag statistics be reconciled?**

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Table S1 Number of nests counted in ten barnacle goose colonies in the northern Delta area in 2004-2014, including the authority. Numbers in last column refer to remarks below the table.

Colony name	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Authority
Slijkplaat, Haringvliet	714	935	1447	1112	1288	1518	1593	1378	1330	988	1023	DPM
Scheelhoek eilanden	305	366	567	355	410	573	511	480	411	398	293	DPM
Westplaat Buitengronden	0	(71)	(142)	(212)	283	(388)	(493)	(598)	703	(590)	(476)	authors
Beeninger Slikken	23	33	16	13	14	(18)	(17)	31	31	(31)	(31)	Kuijpers & van der Heiden
Tiengemetten eilanden Ventjagersplaten	10	76	67	130	246	224	367	298	360	591	575	DPM
Hellegatsplaten, Ooltgensplaateland, lange eiland	146	176	250	239	236	236	274	166	209	192	143	DPM
Hellegatsplaten, other	372	360	347	378	(373)	(373)	(433)	(263)	(331)	(304)	(226)	authors
Krib Hellegat / Banaan	260	375	(309)	242	251	393	347	275	360	473	(473)	DPM
Noordplaat, Volkerrakmeer	267	252	(251)	250	512	928	514	560	757	780	(780)	DPM
total excluding interpolated counts	2097	2573	2694	2719	3240	3872	3606	3262	4161	3422	2205	
total including interpolated counts	2097	2644	3395	2931	3613	4676	4599	4123	4598	4485	4192	

1: Numbers in brackets interpolated

2: Numbers in brackets interpolated, last year(s) assumed the same as year before

3: Numbers assumed proportional to other part of this colony

4: Numbers in 2011-2014 are incomplete

Table S2 The ten best-fitting models for survival of barnacle geese in the Northern Delta area Netherlands. Models consider survival (S), resighting probability (P), reporting probability (r) and the fidelity parameter (F). Parameters are modelled as a function of time (year) and age. For further analyses, parameter estimates for S and r were chosen from model 4

Model	npar	AICc	Δ AICc	Weging	Deviance
1 S(time),P(time)r(.),F(time + age)	33	7089,14	0,0000	0,2947	1265,38
2 S(time),P(time),r(age),F(time + age)	34	7089,41	0,2689	0,2576	1263,62
3 S(time),P(time),r(time),F(time + age)	43	7089,43	0,2880	0,2552	1245,34
4 S(time + age),P(time),r(time),F(time + age)	44	7092,46	3,3169	0,0561	1246,33
5 S(time),P(time),r(time + age),F(time + age)	44	7092,80	3,6631	0,0472	1246,67
6 S(time + age),P(time),r(time + age),F(time)	44	7095,12	5,9785	0,0148	1248,99
7 S(time + age),P(time),r(time),F(time)	43	7095,13	5,9945	0,0147	1251,04
8 S(time + age),P(time),r(time + age),F(.)	35	7095,98	6,8406	0,0096	1268,16
9 S(time + age),P(time),r(time),F(age)	35	7096,39	7,2500	0,0079	1268,57
10 S(time + age),P(time),r(time + age),F(~time + age)	45	7096,43	7,2940	0,0077	1248,26