

July 2011



THE DATA AND MAPS PRESENTED IN THESE PAGES WAS INITIALLY PUBLISHED IN SEABIRD POPULATIONS OF BRITAIN AND IRELAND: RESULTS OF THE SEABIRD 2000 CENSUS (1998-2002).

The full citation for the above publication is:-

P. Ian Mitchell, Stephen F. Newton, Norman Ratcliffe and Timothy E. Dunn (Eds.). 2004. Seabird Populations of Britain and Ireland: results of the Seabird 2000 census (1998-2002). Published by T and A.D. Poyser, London.

More information on the seabirds of Britain and Ireland can be accessed via <http://www.jncc.defra.gov.uk/page-1530>.

To find out more about JNCC visit <http://www.jncc.defra.gov.uk/page-1729>.

Table 1 Response rates to tape playback of male chatter call by Leach's Storm-petrel.

<i>Colony and administrative area</i>	<i>Response rate (95% CLs)</i>
St Kilda: Boreray, Western Isles [daytime 2000] ¹	0.382 (0.338–0.422)
St Kilda: Boreray, Western Isles [dusk 2000]	0.518 (0.449–0.579)
Flannan Isles, Western Isles ²	0.295 (0.245–0.342)
North Rona, Western Isles ³	0.434 (0.288–0.580)

Notes

¹ Response rate on Boreray used to estimate AOSs on other island in St Kilda

² Response rate on Flannan Isles used to estimate AOSs on Old Hill

³ Response rate on North Rona used to estimate AOSs on Sula Sgeir

Table 2 Numbers of Leach's Storm-petrels (AOS) at colonies in Britain and Ireland (1999–2002) compared to previous evidence of breeding given by Cramp et al. (1974) and Lloyd et al. (1991). ID denotes the position of each island group in Figure 1.

ID	Administrative area or country	Colony	Method	Year	AOS	95% lower confidence limit	95% upper confidence limit	Cramp et al. 1974 ¹	Lloyd et al. 1991 ²
1	Shetland	Foula	1,6	2001–02	15	3	30	P (suspected)	P; P (1974; Mainwood, 1975); 50 pairs (1976)
2	Shetland	Gruney	2,4	2000	20				<50 pairs (1982; Fowler, 1982)
3	Orkney	Sule Skerry	1	2001	0			1 AOS (1933; Robinson, 1934)	>5 pairs
4	Western Isles	St Kilda:							
		Hirta	2,5	1999–2000	3,605	2,758	4,925	P	P
		Dun	2,5	1999	27,704	20,430	38,506	P	P
		Boreray	2,5	2000	12,093	9,283	15,671		3200–6400 AOS
		Soay	2,4	2000	2,031	1,839	2,296		P
		St Kilda Total			45,433	34,310	61,398		
5	Western Isles	Flannan Isles:							
		Eilean Mor	2,4	2001	567	492	676	P	P (1988)
		Eilean Tighe	2,4	2001	630	544	759	P (1955; Atkinson & Roberts, 1955)	
		Soray	2,4	2001	112	96	135	P (1959; Anderson <i>et al.</i> , 1961)	
		Sgeir Toman	2,4	2001	51	44	61	P (1959; Anderson <i>et al.</i> , 1961)	
		Roareim	2,4	2001	14	12	16	P (1959; Anderson <i>et al.</i> , 1961)	
		Eilean a' Ghobha	2,4	2001	51	44	61	P (1959; Anderson <i>et al.</i> , 1961)	
		Flannan Isles Total			1,425	1,232	1,708		
6	Western Isles	Old Hill,							
		Loch Roag	3,4	2001	17	15	20		
7	Western Isles	Bearasay,			nc			2 AOS (1955; Atkinson & Roberts, 1955)	
		Loch							
8	Western Isles	Campay,	1		0				
		Loch Roag							
9	Western Isles	Haskeir			nc			1 AOS (1939)	
10	Western Isles	North Rona	2,4	2001	1,132	849	1,700	P	P; 500 pairs (1972)
11	Western Isles	Sule Sgeir	3,4	2001	5	3	7	400 pairs (1939; Atkinson 1948)	P; 15 pairs (1980)
		Scotland Total			48,047	36,432	64,883		
12	Kerry	Great Skellig	1	2002	0			P (suspected 1965; Ruttledge, 1966)	
13	Mayo	Stags of Broadhaven	1,6	2001	310			P (suspected; 1945 & 1947)	>200 pairs (1982; Waring & Davis, 1983)
14	Mayo	Inishglora	1	2002	0				
		Ireland Total			310				
		Britain & Ireland Total			48,357	36,742	65,193		

Method code

- 1 Determined presence/absence
- 2 AOS determined using tape playback of male purr call using site specific adjustment factor – see Table 1.
- 3 AOS determined using tape playback of male purr call using adjustment factor estimated at an adjacent site – see Table 1.
- 4 Complete count of responses
- 5 Sample count of responses
- 6 Best guess

Notes

- ¹ records are from 1969–70 unless otherwise stated
- ² records are from 1985–87 unless otherwise stated
- nc not counted (i.e. presence / absence not determined)
- P present breeding

Table 3 Number of predators present (breeding pairs) at colonies of Leach's Storm-petrels.

<i>Island colony</i>	<i>Great Skua</i>	<i>Great Black-backed Gull</i>	<i>Herring Gull</i>	<i>Lesser Black-backed Gull</i>	<i>Others</i>
St Kilda	229	32	34	30	
Flannans	1	55	20	9	
North Rona	19	983	40	3	
Sule Sgeir	0	0	8	0	
Old Hill	0	36	0	0	corvids
Gruney		15	0	0	corvids
Foula	2,293	16	15	0	Feral cats
Stags of Broadhaven	0	10	4	0	corvids

Table 4 International context.

Country or region	Subspecies	Number of pairs		Year	Source		
		Min	Max			Min % GB	Max % GB
Great Britain, Isle of Man and Channel Isles	<i>leucorhoa</i>	37,000 ¹	65,000 ²	1999–2001	Seabird 2000		
All Ireland	<i>leucorhoa</i>	310	310	2001	Seabird 2000		
Faeroe Islands	<i>leucorhoa</i>	1,000	1,000	1995	BirdLife International / EBCC (2000)		
Iceland	<i>leucorhoa</i>	80,000	150,000		Icelandic Institute of Natural History (2000)		
Norway	<i>leucorhoa</i>	100	1,000	1994	Gjershaug <i>et al.</i> (1994)		
Canada (Atlantic)	<i>leucorhoa</i>	4,793,364	4,793,364	1980–91	Huntington <i>et al.</i> (1996)		
USA (Atlantic)	<i>leucorhoa</i>	19,138	19,138	1970s	Huntington <i>et al.</i> (1996)		
South Africa		3	19	1986–87	Whittington <i>et al.</i> (1999)		
Canada (Pacific)	<i>leucorhoa</i>	550,000	550,000	1980s	Rodway (1991)		
Japan	<i>leucorhoa</i>	500,000	500,000		Watanuki <i>et al.</i> (1988)		
Mexico	<i>chapmani</i>	600,000	600,000	1999	Wolf (2002)		
Mexico (Guadalupe Is.)	<i>heimomnestes</i>	1,500	1,500	1968	Wolf (2002)		
Mexico (Guadalupe Is.)	<i>socorroensis</i>	2,000	2,000	1968	Wolf (2002)		
Russia (NW Pacific)	<i>leucorhoa</i>	175,000	175,000	1970s–1980s	Litvinenko & Shibaev (1991) (see also Kondratyev <i>et al.</i> , 2000)		
USA (Alaska)	<i>leucorhoa</i>	2,000,000	3,500,000	1970's	Sowls <i>et al.</i> (1978)		
USA (Pacific)	<i>leucorhoa</i>	237,182	237,182		Huntington <i>et al.</i> (1996), Wolf (2002)		
<i>Biogeographic region</i>		<i>Min</i>	<i>Max</i>	<i>Min % GB</i>	<i>Max % GB</i>	<i>Min % Ireland</i>	<i>Max % Ireland</i>
North Atlantic*	<i>leucorhoa</i>	4,900,000	5,000,000	0.7%	1.3%	0.0%	0.0%
World	all	9,000,000	10,600,000	0.3%	0.7%	0.0%	0.0%

* Stroud *et al.* (2001)**Notes**¹ 95% lower confidence limit² 95% upper confidence limit

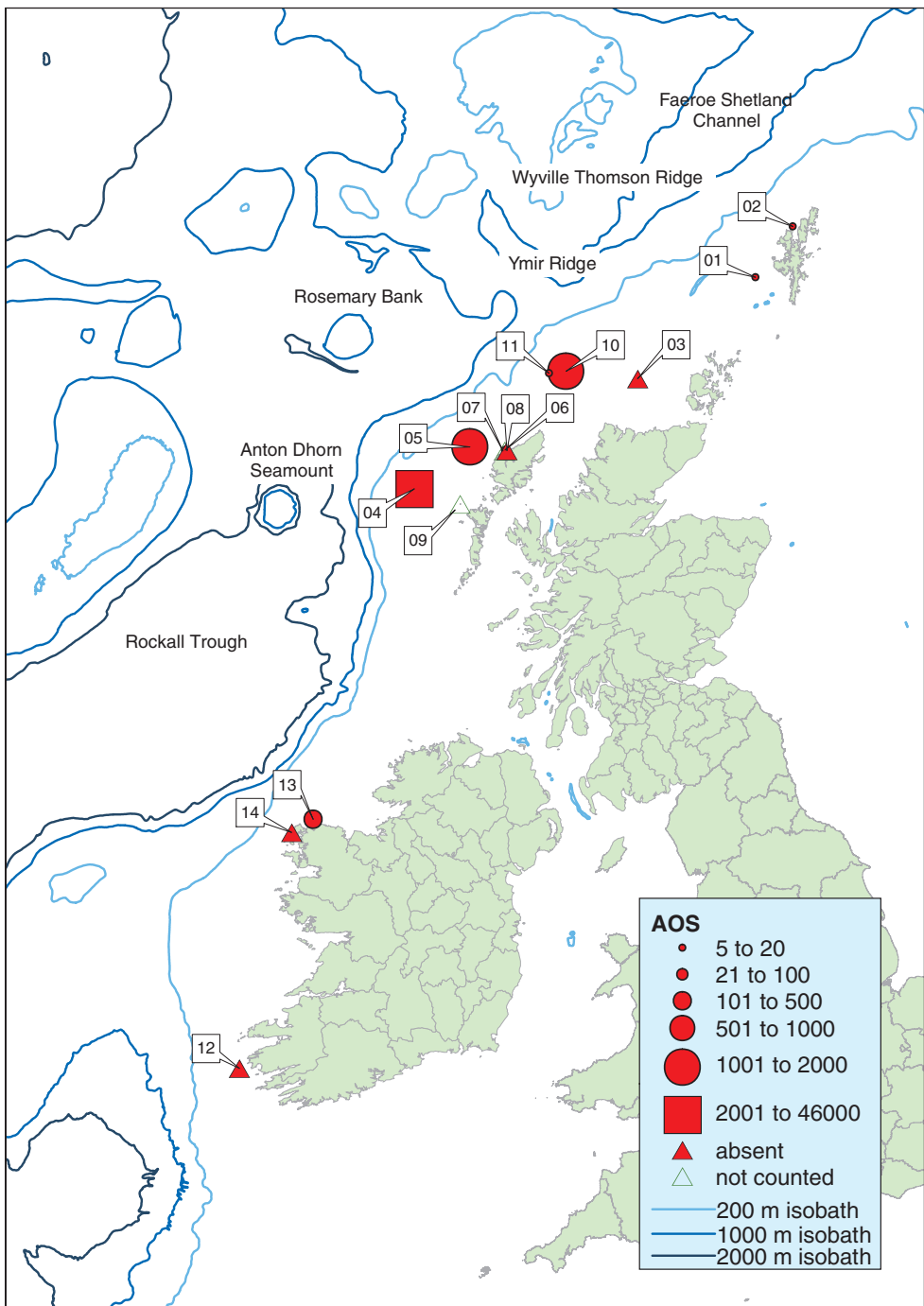


Figure 1 Abundance and distribution of breeding Leach's Storm-petrels in Britain and Ireland 1999–2001. ID number corresponds to colonies listed in Table 2. Bathymetry data supplied by METOC (UKHO) Licence no. 032003/005.

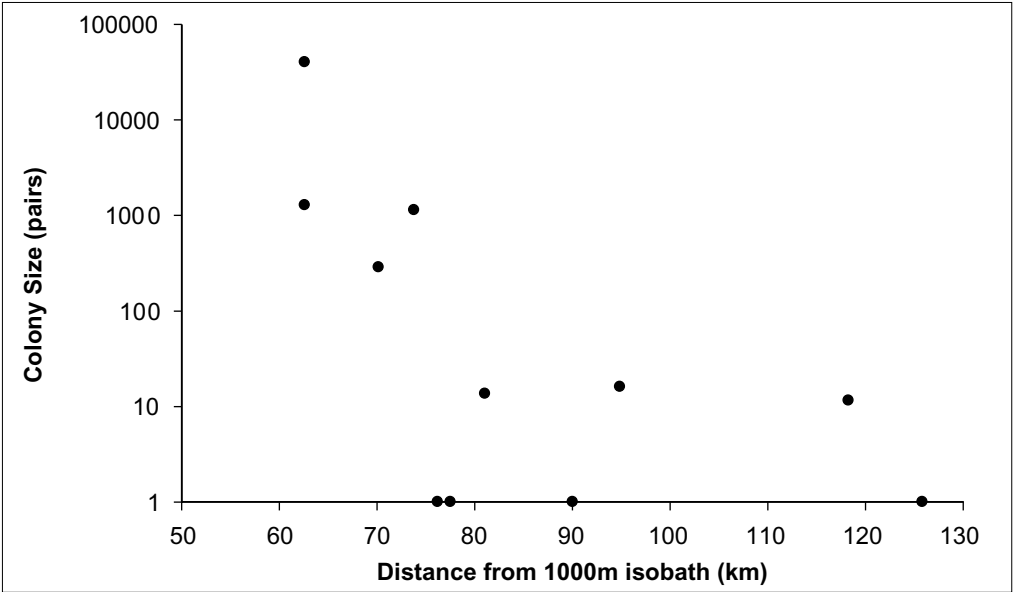


Figure 2 Relationship between colony size (plotted on a log-scale axis) and proximity of deep oceanic water (1,000 m isobath). Spearman rank correlation $r_{s,8} = 0.726$, $P < 0.05$.