

# THE ALDERNEY NORTHERN GANNETRIES – PHOTOGRAPHIC COUNTS OF ORTAC AND LES ETACS, CHANNEL ISLANDS IN 2005

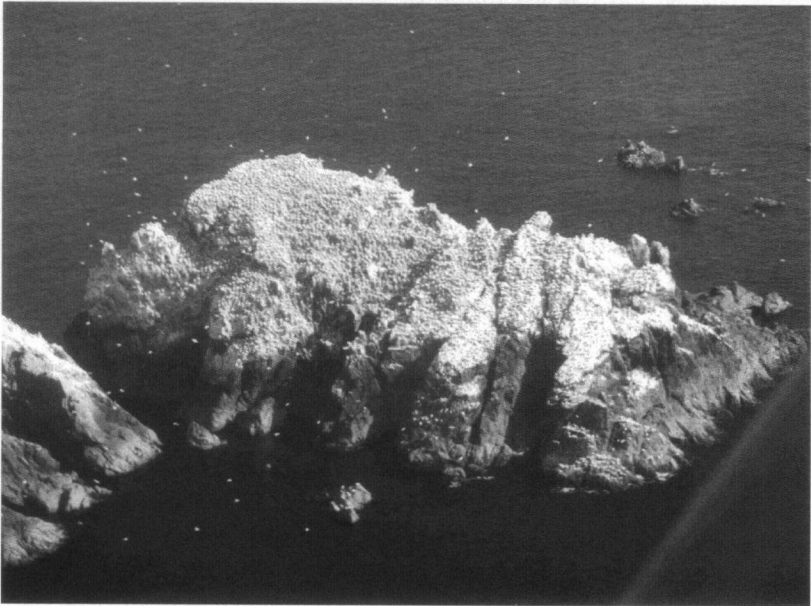
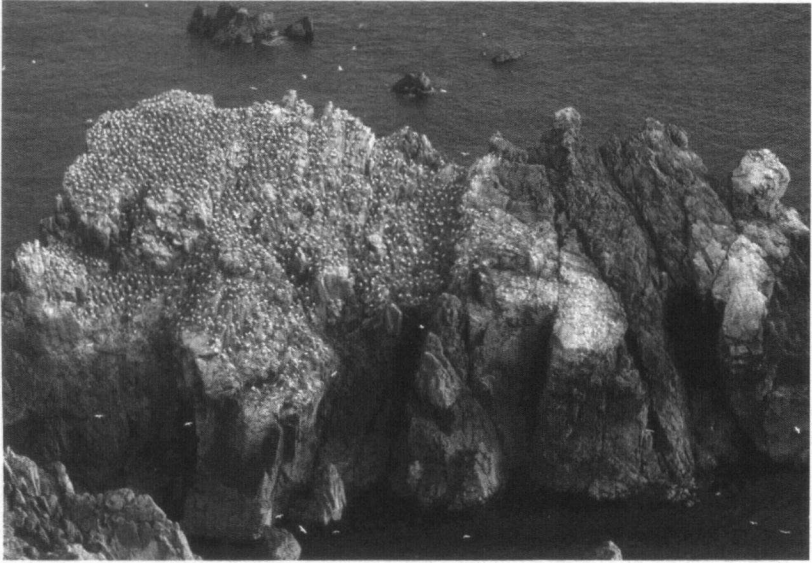
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Sanders J.G. & Harris M.P. 2005. The Alderney Northern Gannetries – photographic counts of Ortac and Les Etacs, Channel Islands in 2005. *Atlantic Seabirds* 7(2): 75-82. *Aerial surveys of Northern Gannet *Morus bassanus* colonies on Ortac and Les Etacs, Channel Islands, in July 2005, found 2547 and 4862 Apparently Occupied Sites respectively. The total population increased at an average rate of 3.3% per annum over the last 55 years. There may now only be limited room for expansion on Ortac where the rate of increase has declined substantially in recent years.*

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## INTRODUCTION

The Channel Islands' Northern Gannet *Morus bassanus* colonies are on the islets of Ortac and Les Etacs, close to Alderney. In June 1940, the entire human population of Alderney, including a small military garrison, was evacuated to the UK. Prior to the evacuation, Major J.A.A. Wallace MC, who was commanding the garrison, and some of his junior officers, visited Ortac to look at a Black-legged Kittiwake *Rissa tridactyla* colony. One of his subalterns reported in great excitement of “a big white bird like an albatross”. On climbing to the top of the rock he discovered a Northern Gannet incubating an egg. Local people assured him that it was the first (Lockley 1948), i.e., the first year the species had bred. He also landed on Les Etacs several times, but there were no Northern Gannets. The people of Alderney did not return until the war was over, five years later, hence the origin of Les Etacs colony, and the initial growth of the Ortac and Les Etacs colonies were not documented. However, in 1945 E. Quinain, an Alderney fisherman returning home after his enforced absence, reported that the eastern side of Ortac was covered with Northern Gannets and discovered another colony on Les Etacs, just off the western end of Alderney (Dobson & Lockley 1946). Here, we report on counts derived from an aerial survey undertaken in July 2005, and we also list previous counts.



*Les Etacs in 1979 (top) and 2005 (bottom). Les Etacs in 1979 (boven) en in 2005 (onder). (Mike Hill 1979 & Jeremy Sanders 2005)*

## METHODS

Both colonies were photographed between 1800 and 1900 hrs BST on 12 July 2005 using 100 ASA colour film and 35 mm cameras fitted with 28-90 mm lenses. Photographs were taken through the windows of a single-engine, high-wing aircraft flying at about 200 m altitude. The weather was fine and the gannetries were in sunshine. Additional photographs of Les Etacs were taken from the adjacent mainland of Alderney on 20 July 2005, and of Ortac and Les Etacs from a boat on 6 August 2005. Counts for Ortac were made from the aerial photographs but 17% of the final total for Les Etacs came from the later photographs.

Northern Gannets on Les Etacs are used to aircraft, since 20-50 small aircraft using Alderney's airfield pass over daily, and non-breeding or 'club' birds did not take off when the aerial photographs were being taken. Fewer aircraft pass over Ortac and some, but not all, club birds took off. The August boat trip allowed the breeding areas to be delimited.

Three complete counts were made from 30x20 cm colour prints overlaid with tracing paper (first count) or acetate sheet (second and third counts). When counting, natural rock features were used as reference divisions to avoid double counting on different photographs. The count unit used was the Apparently Occupied Site (AOS) defined as one or two Northern Gannets occupying a site, irrespective of whether any nest material was visible. Counts were made by the senior author using a x8 magnifying glass, each AOS being spotted out as it was counted.

Some previous counts have reported on the numbers of club-birds present. We did not do this since it was unclear how many had left due to the aircraft and because there were many birds on the sea and on the Renonquet reef, situated 1.5 km north-east of Ortac and 3.5 km north-west of Les Etacs. Northern Gannets started roosting on Renonquet in 1999. The reef is low-lying, and there has so far been no evidence of Northern Gannets attempting to nest on it.

## RESULTS

**Ortac** Ortac is an isolated rock, approximately 100x70 m rising to 22 m in height, situated 4.5 km west of Alderney; it has very steep sides. In 2005, there were 1865 AOS (range of three counts 1754-1944) on the east side and top, and 682 (567-784) on the west side, giving a total of 2547 (2321-2728) AOS.

**Les Etacs** The name Les Etacs is no longer in everyday use, although still used on maps and documents, having been replaced by the name the Garden Rocks. Les Etacs consist of two groups of rocks, rising steeply from the sea. The areas

and names of the various rocks are essentially those of Hill (1993). The largest unit, the Main Rock at the western end of the Main Group, is approximately 120 m long x 70 m wide, and rises steeply from the sea to a height of 37 m. The north face of the Main Rock shelves at an angle sufficient to enable Northern Gannets to nest on the greater part of it, and has the major part of the colony. The south face of the Main Rock is sheer, and birds nest only on outcrops. Adjacent to the northeastern end of the Main Rock are two rocks called here North Rock 1 (closest to the Main Rock), and North Rock 2 (which lies to the north of North Rock 1). All three units are joined at very low tide. The East Stacks comprise a unit which is about one third as big as the Main Group, and consist of two stacks, the highest of which is 32 m high.

In 2005, the Main Rock had 3479 AOS (range 3327-3660), North Rock 1 had 423 AOS (including an estimate of 100 nests in hidden areas; range 417-429), North Rock 2 had 266 AOS (254-277), and the East Stacks had 694 ASO (646-739). This gives a total of 4862 AOS (4644-5105).

Table 1. Counts of Northern Gannets on Ortac, 1940-2005.

Tabel 1. Tellingen van Jan-van-genten op Ortac, 1940-2005.

Year	Count	Range	Source
1940	1 nest		Dobson (1952)
1946	250 pairs		Dobson (1952)
1948	>234 nests		Fisher & Vevers (1951)
1949	225 pairs	200-250	Fisher & Vevers (1951)
1950	570 pairs		Fisher & Vevers (1951)
1951	225 pairs		K. Le Cocq (in Hill 1989)
1952	450 pairs	400-500	K. Le Cocq (in Hill 1989)
1960	925 nests		Cramp <i>et al.</i> (1974); Anonymous (1961)
1969	1000 AON	800-1200	Cramp <i>et al.</i> (1974) Operation Seafarer records
1979	1787 AOS	1719-1871	Hill (1989)
1984	2062 AOS	1964-2142	Hill (1989)
1987	2211 AOS	2138-2284	Hill (1989)
1989	2106 AOS	1967-2194	Hill (1989)
1994	2098 AOS		M.G. Hill ( <i>pers. comm.</i> )
1999	2500 AOS		J. Hooper (in Wanless <i>et al.</i> 2005)
2005	2547 AOS	2321-2728	This study

**Previous counts** It was not until June 1938 that (two) Northern Gannets were recorded flying past the Casquets group of rocks in summer (Dobson 1952). The single nest with an egg on Ortac in 1940 was almost certainly the first breeding attempt (Dobson 1952), at least in historic times. By the time of the next checks, in 1946, there were c. 250 pairs on Ortac and c. 200 pairs at the

new colony on Les Etacs (Fisher & Vevers 1951). Details of counts known to us are given in Tables 1 and 2. Most of these counts are documented by Hill (1989). The units used in these counts varied - nests, pairs, Apparently Occupied Nests (AON) and Apparently Occupied Sites AOS - so for convenience we follow the normally accepted convention of assuming that these are all equivalent when comparing counts (Wanless *et al.* 2005). There is some uncertainty regarding the very high count from Les Etacs in 1969 since this is approximately double the counts of 1960 and 1973. Long (1981) reported that numbers at both colonies showed "a steady increase until about 1960 when they reached about 1000 at both sites, since when the totals seem to have remained fairly constant". Wanless (1987) assigned a count of 1120 site-holding individuals and 71 club birds in the Main Colony in 1969 to W.A. Burridge, and Hill (1989) presented a map showing that the extent of the colony increased relatively little between 1960 and 1974. Therefore, it appears likely that the count of 2000 nests in 1969 is erroneous and for plotting population trends (see Figure 1) a figure of 1000 pairs is used (Wanless 1987).

Table 2. Counts of Northern Gannets on Les Etacs, 1940-2005. n.c. = not counted.

Tabel 2. Tellingen van Jan-van-genten op Les Etacs, 1940-2005. n.c. = niet geteld.

Year	Total colony	Main colony	East stack	Source
1940	0	0	0	Dobson (1952)
1946	200 nests	190	10	Dobson (1952)
1948	>200 nests			Fisher & Vevers (1951)
1949	418 pairs	400	18	Fisher & Vevers (1951)
1950	615 pairs	600	15	Fisher & Vevers (1951)
1960	1010 pairs	1000	10	Cramp <i>et al.</i> (1974); Unpublished J. Fisher papers, British Museum
1960	1062 nests	1000	62	Anonymous (1961); Unpublished J. Fisher papers, British Museum
1969	[2000 nests]			Cramp <i>et al.</i> (1974)
1973	> 1003 AOS	1003	n.c	Hill (1989)
1974	1269 AOS	1019	c.50	Wanless (1987)
1975	1627 AOS	1525	102	Wanless (1987)
1979	1978 AOS	1891	87	Hill (1989)
1984	2325 AOS	2207	118	Hill (1989)
1987	2536 AOS	2412	124	Hill (1989)
1989	2810 AOS	2655	155	Hill (1989)
1992	2746 AOS	2535	211	M.G. Hill ( <i>pers. comm.</i> )
1994	3380 AOS	3008	372	M.G. Hill ( <i>pers. comm.</i> )
1999	3450 AOS			J. Hooper (in Wanless <i>et al.</i> 2005)
2005	4862 AOS	4168	694	This study

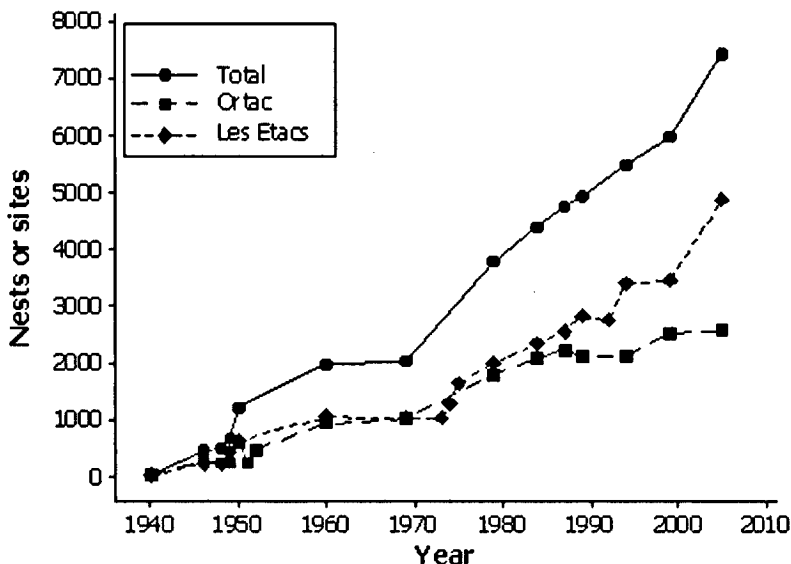


Figure 1 Number of Northern Gannet breeding sites (AON/AOS/nests/pairs) on Ortac and Les Etacs, 1940-2005.

Figuur 1. Aantal broedplaatsen (AON/AOS/nest/paar) van Jan-van-genten op Ortac en Les Etacs, 1940-2005.

## DISCUSSION

There must have been massive immigration into these two colonies during and immediately after the war years to allow the increase from 1 to c. 450 nests over a five-year period and to 1185 nests by 1950. The increase has continued, albeit at a slightly reduced rate (Figure 1). Between 1950 and 2005, the rate of increase of the two colonies combined has been remarkably constant at 3.3% per annum (9 counts,  $r^2 = 97\%$ ,  $P < 0.001$ ). However, the rate of increase on Ortac between 1979 and 2005 was only 1.2% p.a., compared with 3.3% on Les Etacs. The literature comprises many accounts of seabird colonies that appeared to have been full, but which have subsequently increased. Dobson & Lockley (1946) speculated that the maximum capacities of Ortac and Les Etacs were 500 and perhaps 1000 pairs respectively. In 2005, there were about five times as many pairs as these predictions. However, the much reduced rate of increase on Ortac does suggest that space may be becoming limited.

The Channel Island colonies were not counted during the British and Irish Northern Gannet survey in 2003/04, and Wanless et al. (2005) assumed a figure of 6500 AOS based on the past rate of increase. This would now appear to have been slightly too low but even so, these two gannetries still hold less than 3% of the total British and Irish population (c. 260,000 occupied AOS; Mitchell et al 2004). However, whereas the average rate of increase of the British and Irish population since the last full survey had declined to 1.2% p.a., that in the Channel Islands had remained high at 2.8% p.a. The rate of increase at the large French colony on Rouzic (135 km from Alderney) has also declined in recent years (Siorat & Bentz 2004) so it will be interesting to see what happens to numbers on Ortac and Les Etacs in the near future.

### ACKNOWLEDGEMENTS

We are indebted to Richard Herivel for piloting the aircraft for the aerial part of the census and Mike Hill for encouragement and help.

### JAN-VAN-GENTENKOLONIES OP ALDERNEY, INVENTARISATIE VAN ORTAC EN LES ETACS, KANAALEILANDEN, IN 2005

*Een inventarisatie vanuit de lucht van kolonies van Jan-van-gent *Morus bassanus* kolonies op Ortac en Les Etacs (Kanaaleilanden) in juli 2005, resulteerde in respectievelijk 2547 en 4862 schijnbaar bezette plekken (Apparently Occupied Sites). De totale populatie nam de afgelopen 55 jaar toe met een jaarlijks gemiddelde van 3.3%. Mogelijk is ruimtegebrek op Ortac nu de beperkende factor voor een verdere toename. In deze kolonie is de groeisnelheid de laatste jaren sterk gedaald.*

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