

Distribution and population status of the Herring Gull *Larus argentatus* in the Canary Islands

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INTRODUCTION

The Herring Gull *Larus argentatus* is widely distributed through much of North America and the Western Palearctic (Vaurie 1965, Harrison 1983, Grant 1986). It occurs on all the archipelagoes of Macaronesia except the Cape Verde Islands, where it is only an occasional visitor (Bannerman & Bannerman 1968). Some 2000 pairs nest on the Azores and it is widespread in small, but unknown numbers on Madeira (Le Grand *et al.* 1984). On the Desertas, Le Grand *et al.* (1984) mentioned a large colony on Chao, as well as some old nests on Deserta Grande and Bugio in 1981, whilst a brief visit to Porto Santo in 1981 found breeding in only limited numbers. It seems to be relatively scarce on the Selvagens where Jouanin (1974) found 10 nests on Selvagem Grande during 1973 and Jensen (1981) estimated the size of the colony at 25-30 pairs, figures which agree with the observations of Hartog *et al.* (1984). On Selvagem Pequena, Le Grand *et al.* (1984) counted 5-10 pairs.

It is the only gull to nest on the Canaries, although a pair of Slender-billed Gulls *Larus genei* attempted to nest on Fuerteventura in 1976 (Cramp & Simmons 1983). Although the Herring Gull was a relatively common species in the past (Bolle 1855), there are few data on its distribution and breeding. Bolle (1857) mentioned that it nested under bushes on the dunes of Maspalomas (Gran Canaria). Meade-Waldo (1893) stated that it bred on all the islands, and Polatzek (1909) collected a clutch on Fuerteventura. Bannerman (1919) mentioned that the Roques de Anaga (Tenerife) and the Roque del Este (Lanzarote) were once the main breeding grounds, and Volsøe (1951) noted the likelihood of a colony in Los Cristianos (Tenerife). Later, Lovegrove (1971), Le Grand *et al.* (1984) and Martín (1987) contributed more detailed information on other breeding sites, especially those on the eastern islets (north of Lanzarote) and Tenerife.

METHODS

In April and May 1987, a team of seven (F.Santana and ourselves) ornithologists investigated both the major part of the Canary coastline from the land and the sea and inland areas which seemed suitable for nesting gulls.

Wherever possible, we counted nests with and without eggs or small chicks; otherwise we counted adults present. Where colonies were inaccessible or difficult to see, the number of birds was calculated by letting off small rockets in the area, the counts being repeated several times in the larger breeding areas (Nettleship 1976). Where it was possible to count both birds and nests at the same time, the results were very similar (e.g. R. del Este, Pta. Barlovento, Roque Garachico).

RESULTS

Details of counts are given in Table I and location of colonies in Figure 1.

Roque del Este: Thirty nests were found, with a total of 66 birds being observed and an estimated population of 35-40 pairs. Lovegrove (1971) noted c. 20 pairs on this small rock in 1970.

Alegranza: We found a colony (35-41 pairs) on the upper outer rim of La Caldera in the west of the island. Bannerman (1914) noted the species as being very scarce and Lovegrove (1971) did not mention the species.

Table I. Details of counts in the main colonies of the Herring Gull in the Canary Islands in 1987; N.C.(no count).

<i>Island</i>	<i>Locality</i>	<i>Colony number</i>	<i>Date</i>	<i>Nests counted</i>	<i>Adults counted</i>	<i>Estimated Pairs</i>
R. del Este		1	10 March	30	66	35-40
Alegranza	La Caldera	2	14 March	23	79	35-41
R. del Oeste		3	22 October	1		1
M. Clara	La Caldera	4	11 March	231	337	235-245
M. Clara	Las Tabaibitas	5	12 March	5	123	70-100
Lanzarote	Macizo Famara	6	21 March	N.C.	913	450-550
Lanzarote	Timanfaya	7	23 March	3	97	50
Lobos	La Caldera	8	29 March	73	133	77-88
Fuerteventura	Pta. Barlovento	9	31 March	290	535	295-305
Fuerteventura	Amanay	10	2 April	153	184	165-175
Fuerteventura	Recogedero	11	3 April	48	97	50-60
Fuerteventura	Miña. Roja	12	4 April	36	74	49-59
G. Canaria	R. del Herrero	13	8 May	N.C.	435	204-230
G. Canaria	Pta. del Manso	14	8 May	N.C.	156	85-100
G. Canaria	Pta. Las Tetas	15	9 May	N.C.	333	170-190
Tenerife	R. Fuera Anaga	16	12 May	N.C.	348	210-215
Tenerife	Los Cristianos	17	14 May	N.C.	193	100-110
Tenerife	Roque Garachico	18	16 May	42	71	45-50
La Gomera	Pta. Salinas	19	28 April	N.C.	68	50-75
La Gomera	Pta. Gorda	20	28 April	N.C.	121	75-85
La Gomera	Risco Amargura	21	29 April	N.C.	760	400-450
La Gomera	Playa Argaga	22	29 April	N.C.	332	180-212
La Gomera	Puntillas Avalo	23	1 May	N.C.	146	40-60
El Hierro	Roque Gaviotas	24	8 April	4	98	50-60
El Hierro	Bahía de Naos	25	10 April	N.C.	59	30-40
El Hierro	Pta. Lapillas	26	10 April	N.C.	91	45-60
El Hierro	Mta. Cardillos	27	10 April	N.C.	112	60-75
El Hierro	Morro del Paso	28	10 April	N.C.	53	30-40
El Hierro	Roques Salmor	29	13 April	N.C.	67	45-55
El Hierro	El Corral	30	13 April	N.C.	100	45-50
El Hierro	Los Cercaditos	31	1 June	N.C.	150	25-40
La Palma	Roque Tabaibas	32	16 April	6	18	10-14
La Palma	Punta Gaviotas	33	16 April	3	5	3

Roque del Oeste: Sea conditions prevented a landing during the breeding season but the remains of a recent nest were found in August 1987.

Montaña Clara: Some 235-245 pairs were concentrated round the summit of La Caldera, and another 70-100 pairs on the eastern outer slope. Bannerman (1914) observed many gulls on the northeast cliffs in 1913, although he indicated that the species does not breed on the islet. De la Hoz (1961) commented that when the inhabitants of Graciosa visited Montaña Clara to collect shearwater chicks, the gulls were very afraid that their chicks would be stolen. Lovegrove (1971) estimated 20 nesting pairs.

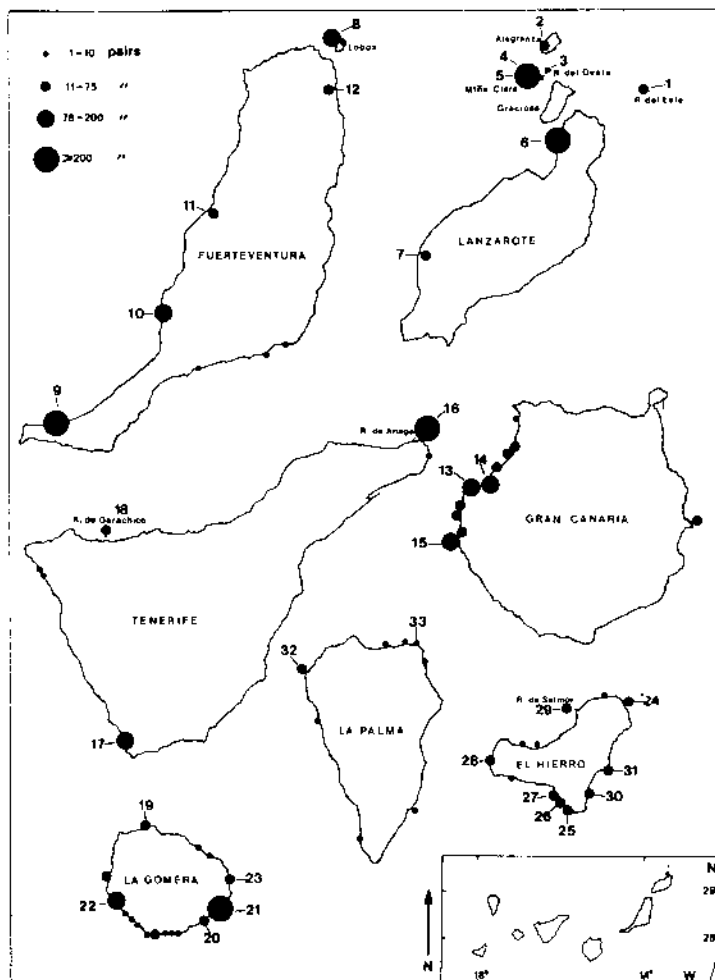


Figure 1. Distribution and estimated colony sizes of the Herring Gull in the Canary Islands in 1987. Colony numbers refer to Table I.

Lanzarote: The most important colony in the Archipelago was on the Riscos de Famara, in the north of the island, with some 450-550 pairs; the presence of this colony was suspected by Bannerman in 1913. Some 50 pairs breed in a recent volcanic "badland" inside the Timanfaya National Park (west of the island).

Lobos: Some 77-88 pairs bred inside the Caldera de la Montaña, where Osborne (1986) observed *c.* 30 birds in April 1984. A further 11-16 pairs were discovered inland.

Fuerteventura: The population was 574-618 pairs with the main colonies on the western coast, principally the Punta de Barlovento, Jandía (295-305 pairs) and the Punta de las Hendiduras de Amanay (165-175 pairs). On the east coast at Montaña Roja 49-59 pairs nested.

Gran Canaria: The nesting population was 823-950 pairs most on the western coast, from Agaete to the Barranco de Tasartico. The main concentration was between the Roque del Herrero and Paso del Herrero (204-230 pairs) and the area between Las Tetas and Punta de las Tetas (170-190 pairs). There was a small colony (15-17 pairs) on the Roque de Gando (east coast).

Tenerife: The total population was c. 412-438 pairs. The main breeding areas were the Roque de Fuera de Anaga (210-215 pairs), Los Cristianos (100-110 pairs) and the Roque de Garachico (45-50 pairs). Scattered pairs bred close to the Playa de Anosma (7 pairs) and the Acantilado de Los Gigantes (15-16 pairs). Martín (1987) noted a large colony here in 1980-1984, which has now gone, possibly as a result of the almost continuous traffic of pleasure craft in the area.

La Gomera: The total population was 866-1026 pairs. Most pairs were found in the southern half of the island, generally at very scattered sites on the cliffs between San Sebastián and Valle Gran Rey, which mostly had no more than 10 pairs. Some 400-450 pairs were found on the Risco de la Amargura making this one of the most important colonies in the Archipelago. Also, 180-212 pairs breed between the Playa de Argaga and Punta de Iguale. In the northern half, 50-75 pairs bred at Punta de las Salinas, and a few scattered pairs elsewhere.

El Hierro: The Herring Gull was widely distributed but all the colonies were small, El Corral (45-50 pairs), Playa de los Negros (30-40), Los Cercaditos (25-40), Roque de las Gaviotas (50-60) and Roques de Salmor (45-50). Martín & Hernández (1985) estimated c. some 30 pairs at Roque Chico.

La Palma: Despite suitable breeding cliffs, La Palma had only 23-37 pairs, scattered principally along the north coast. The most important site was at Roque de las Tabaiabas (Garaffa) with 10-14 pairs.

DISCUSSION

During this century the Herring Gull has increased in numbers throughout most of its range during this century (Cramp & Simmons 1983, Carrera & Vilagrassa 1984, De Wit & Spaans 1984, Guyot *et al.* 1985, Monaghan & Zonfrillo 1986, Beaubrun 1988). This appears to have been due to its ability to colonize new habitats, and the ease with which it exploits new food resources, especially household rubbish and other waste created by man (Cramp & Simmons 1983, Furness & Monaghan 1987).

The few past counts to the population size in the Canaries do not allow us to reconstruct its development during the past few decades. However numbers appear to have increased, eg. Lovegrove (1971) reported c. 20 pairs on Montaña Clara where we found 305-345 pairs in 1987. During 1989 we noted an increase in numbers in two sites on El Hierro: Roques de la Sal and Roque Grande de Salmor. At the first three pairs bred in 1989, with 37 birds being present compared to one in 1987. At the second more than 200 birds were observed in June 1989, compared with the 26 birds counted in 1987.

The apparent increase in numbers in the Canaries has probably been helped by the expansion of the fish (canning and salting) industries. These started in the 1920s and increased until the 1970s when its decline started (García 1970, Santos & Macías 1984). Most factories were on Gran Canaria, with fewer on Lanzarote, Tenerife and La Gomera; although it was on these islands where the population of *L. argentatus* has remained most numerous up to the present day. At present, the number of factories has been drastically reduced and only a small number remain on Lanzarote and Gran Canaria. Unauthorized rubbish tips are common on all the islands, and these may allow the populations to remain at their current levels.

ACKNOWLEDGEMENTS

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SUMMARY

A complete survey of possible breeding sites in 1987 found a total of 4000-4700 pairs of Herring Gulls in the Canary Archipelago. The species was widespread on all islands except La Palma where the population was very reduced. The main colonies were on Montaña Clara (305-345 pairs), Acantillados de Famara, north Lanzarote (450-550 pairs), and Risco de la Amargura, south La Gomera (400-450 pairs).

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BOOK REVIEWS

HARRISON, C.S. 1990. Seabirds of Hawaii: natural history and conservation. 249pp. \$36.50 cloth, \$15.95 paper. Cornell University Press, Ithaca and London. ISBN 0 8014 2449 6 (cloth), ISBN 0 8014 9722 (paper).

Craig Harrison is well known for his research on the status and feeding ecology of Hawaiian seabirds and has wide experience of environmental law. He is clearly well qualified to write this volume on the natural history and conservation of the seabirds of Hawaii.

The book is divided into four parts. The first, entitled "The environment and humans" introduces the reader to the Hawaiian archipelago and described what is known as the islands' geology, archaeology and natural history, the characteristics and oceanography of the surrounding seas and the history of man's association with, and exploitation of, the islands. The second part is a review of the comparative biology of Hawaiian seabirds with chapters on origins and adaptations, populations, breeding and feeding ecology and the birds' lives at sea. The third section takes a family by family look at the seabirds describing, for each of the 22 species, their distribution and abundance, behaviour and ecology on sea and land, breeding and conservation. The book concludes with a comprehensive review of the threats facing Hawaiian seabirds both on land and at sea and conservation issues.

Together these sections provide a highly readable overview of a tropical seabird community, with the emphasis on conservation. As a reference work the book's value is somewhat reduced because the author has elected to give selected bibliographies for each chapter at the end of the book, rather than give source references in the text.

The author's enthusiasm and commitment to the area and its seabirds, comes through strongly both in the anecdotes of his experiences in the field, which enliven the natural history sections, and in his diatribe on the political intrigues which currently thwart the implementation of effective wildlife conservation. In his preface Craig Harrison expresses the hope that this book will convey some of the wonders of Hawaii's seabirds and will help to stimulate improvements in the ways humans manage wildlife in Hawaii. For me, he succeeds in his first aim, only time will tell whether his second, and more important, goal will be achieved.

The book is well produced and enhanced by some attractive line drawings, colour and black and white photographs.

Sarah Wanless

LLOYD, C., TASKER, M.L. and PARTRIDGE, K. 1991. The Status of Seabirds in Britain and Ireland. 355pp. £20.00. T. & A.D. Poyser, London. ISBN 0 85661 061 5.

This must be just about the most superfluous review of the year. Can there be any member of the Seabird Group who by now does not own a copy of this excellent book, which reports the results of their labours between 1985 and 1987 in repeating 'Operation Seafarer'? I hope not, because the book is a fitting tribute to the army of data collectors (over 600 individuals), to those who processed and analysed these data, to the authors of the book and to its publishers.

It is a great deal more, however, than the report of a repeat of Operation Seafarer. First, the field work had the benefit of the experience gained during and after this pioneering enterprise. This made it possible to improve the organisation, methods and instructions with considerable improvements in the quality and quantity of the data, leading to more detailed and precise analysis and presentation of results. As a baseline for future work we are now in a most enviable position.

Second, in parallel with the actual field work, went the establishment of the Seabird Colony Register. This ensured that not only the new but also much previous data on seabird status (including all Seafarer data) became part of a single computer-based registry. This alone would have been a landmark achievement.

Third, the book reviews a wealth of data on both historical and recent population trends of British and Irish seabirds. It is therefore a valuable work of reference and interpretation as well as providing a detailed comparison of changes in status over the last 20 years. The introductory chapters, on seabird biology, population regulation and known and potential causes of population change are excellent – clear, concise and well balanced. The first part of the book also contains the vital chapter on the methods of data collection and analysis (together with appendices on the forms and instructions used in both the recent and the Seafarer surveys).