

The Little Gull *Larus minutus* in Ceredigion, West Wales

A.D. Fox

INTRODUCTION

In their comprehensive review of the status of the Little Gull *Larus minutus* in Britain and Ireland, Hutchinson & Neath (1978) suggested there had been a considerable increase in numbers seen in the British Isles. Before the early 1950s, Little Gulls were scarce on south and east coasts of England, appearing chiefly in autumn, and even rarer elsewhere, except in Angus and Fife where passage flocks had been regular since the 1940s. However, by 1973, the species was common in many parts of Britain and Ireland in autumn, with a minimum total of 3,700 records in Britain alone during that year, and sightings from all months of the year. Three quarters of all Little Gulls reported in England and Wales were seen during August to November. In Scotland the autumn passage occurs slightly earlier, with about 75% during July to October. A large proportion of the remaining records from all of Britain are from the spring passage during March-May, and winter records remain relatively small, numbering considerably less than 5% of all sightings in most years (Hutchinson & Neath 1978).

In western Britain, the species is similarly a spring and autumn migrant, and in Ceredigion (formerly Cardiganshire) at least, also occurs inshore during the winter in adverse weather conditions. Records from December-February constitute 26% of recent Little Gull records, a remarkably high proportion compared to other parts of Wales (e.g. less than 7% in Gwynedd from Cambrian Ornithological Society Bird Reports). The present paper describes these patterns of occurrence and offers some explanations for these observations.

Historical Perspective

The first record of Little Gull from the county appears to be that of the Aberystwyth taxidermist Hutchings who obtained a bird in October 1891, with another in 1899 both brought in by storms (from the diaries of Professor J.H. Salter lodged at the National Library of Wales). One was seen by Captain W.W. Cosens at Glandyfi in about 1893 (Forrest 1907, Ingram, Salmon & Condry 1966), followed by another at Borth in 1901 and another at the same place in February 1902.

Elsewhere, the generally winter occurrence of the birds and the association with bad weather was noted by Forrest (1907) in North Wales and the only early record from Pembrokeshire in January 1892 (Mathew 1894) was also associated with strong winds.

Between 1902 and 1964, there were only six more occurrences in Ceredigion, and only two of these in winter. Since 1968, the species has been seen in varying numbers every year except 1971 (Figure 1). The apparent increase in the numbers since 1968 is probably largely due to an increase in the interest in the species, linked to a better understanding of its patterns of occurrence. The following analysis of Little Gull records is based wholly on sightings since 1968, where the occurrence and age of birds seen in the area are well documented.

METHODS

All records of Little Gull in Ceredigion submitted to Peter Davis, county Bird Recorder, were segregated by age, habitat and date. To assess the meteorological conditions prevailing,

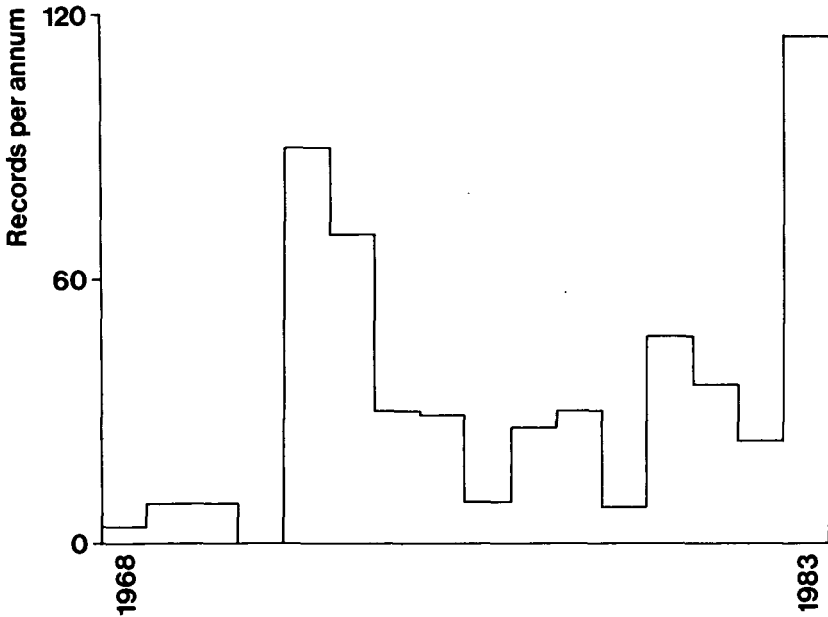


Figure 1. Total annual numbers of records of Little Gull (*Larus minutus*) submitted from Ceredigion for the years 1968-83 inclusive.

wind direction at 09.00 hr GMT and wind run (the distance travelled by the wind during 24 hours) as measured by anemometer at the Welsh Plant Breeding Station, Bow Street, near Aberystwyth were recorded for dates when Little Gulls were seen. To test for differences between these weather patterns and those of typical years, the same information was extracted for all dates (irrespective of whether Little Gulls occurred or not) during the years 1968-83 inclusive.

RESULTS

Seasonal occurrences

During the years 1968-83, Little Gulls were noted in Ceredigion in every month of the year (Table 1), with maximum numbers in April/May and August/September, few in June/July, but with substantial numbers appearing in winter. Analysis of wind direction and wind strength shows that in Ceredigion, the winter occurrence of the species is almost completely dependent on strong winds from the south and west, in contrast to the prevailing weather conditions during occurrences in the remainder of the year (Figures 2 and 3).

TABLE 1. TOTAL NUMBERS OF LITTLE GULLS SEEN IN EACH MONTH DURING 1968-1983 IN CEREDIGION.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
68	35	19	81	75	3	2	40	92	29	35	29

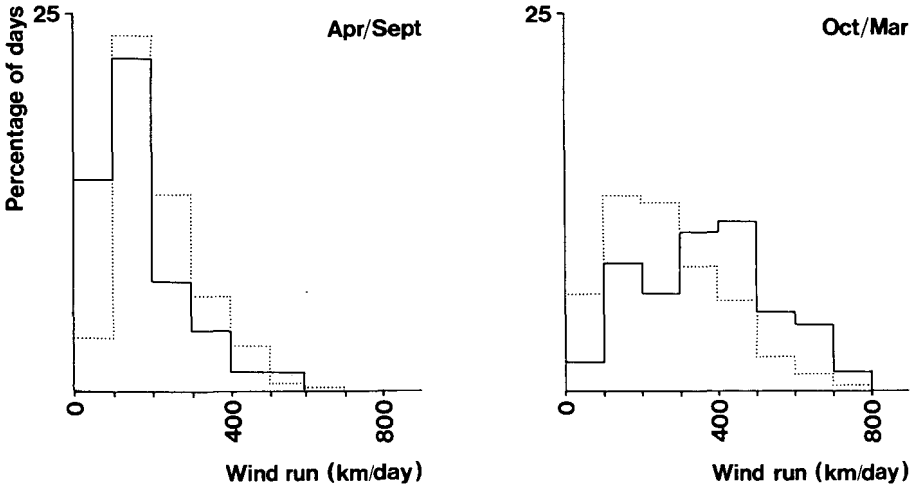


Figure 2. Percentage wind run frequency on days when Little Gulls (*Larus minutus*) were reported in Ceredigion during April to September (upper) and during October to March (lower); for comparison, wind run frequency for all dates during 1968-83 inclusive are shown by dotted lines.

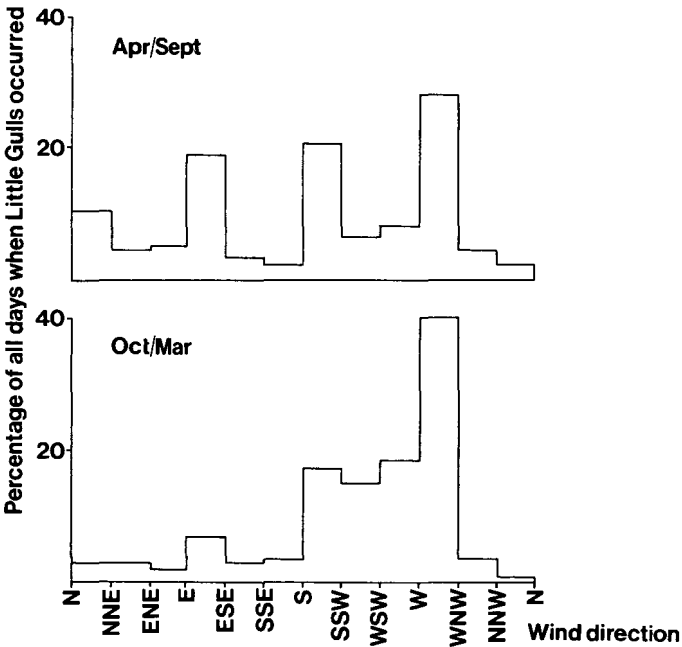


Figure 3. Percentage wind direction frequency on days when Little Gulls (*Larus minutus*) were reported in Ceredigion during April to September (upper) and during October to March (lower).

- (i) *Winter*: comparison of wind strength for days when Little Gulls appeared with all winter dates for the period 1968-1983 shows a significant difference, the gulls occurring more often on days of very strong winds than would be expected by chance ($\chi^2_{(8)} = 60.25$, $p < 0.001$, Figure 2). However, it should be stressed that in many winters with strong south-west winds, there are few or no Little Gull records, suggesting birds are not always present offshore.
- (ii) *Spring/Autumn*: by contrast, the appearance of Little Gulls during the period April-September inclusive appears to be a feature of still weather (Figure 2) with gulls appearing on more days of low wind velocity than would be expected by chance ($\chi^2_{(8)} = 75.67$, $p < 0.001$). There does not appear to be such a strong link between wind direction and the pattern of occurrence during this time (Figure 3). Exceptionally, an adult was seen amidst the Black-headed gullery at Cors Caron National Nature Reserve in May 1970, one of several such cases of adults associating with colonies of Kittiwakes *Rissa tridactyla* and Black-headed Gulls *Larus ridibundus* (listed in Hutchinson & Neath 1978).

Habitat preferences

Hutchinson & Neath (1978) found that winter occurrences of Little Gulls tended to be at beaches, whilst spring and autumn passage sightings come predominantly from brackish water and lagoons near the coast. Ceredigion winter records similarly come largely from steeply-shelving storm-beaches (Figure 4) which are a feature of low-lying stretches of the west Wales coast in Ceredigion. Such beaches occur at Aberaeron, Llansantffraid, Llanrhystud, Tan-y-bwlch (south of Aberystwyth) and Aberystwyth South Beach; Little Gulls have

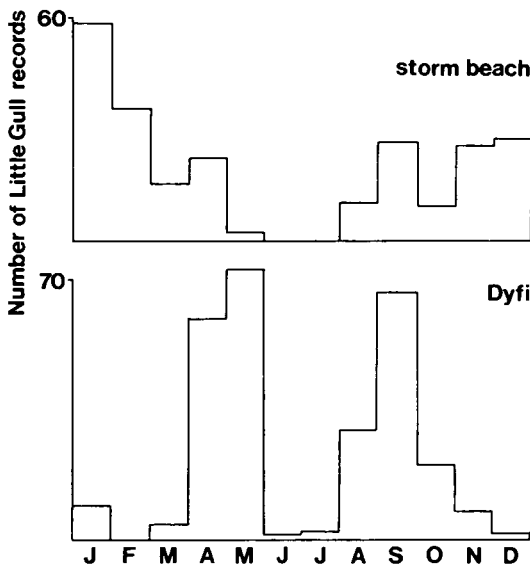


Figure 4. Seasonal distribution of Little Gulls (*Larus minutus*) at steeply-shelving storm-beaches (top) and from Dyfi estuary/Ynyslas area at the northern end of the district (lower) for the years 1968-83.

been recorded from all these sites. Birds appear after severe winds frequently associating with Kittiwakes dip-feeding amongst the white water of waves crashing onto these storm-beaches, but swiftly disappear with ameliorating conditions. Birds may very occasionally appear on storm-beaches in spring and autumn during strong south-west to westerly winds, but records from May-July are very few.

The vast majority of the remaining records come from the well watched Dyfi Estuary National Nature Reserve and surrounding shallow shore. Here, occurrences are almost completely restricted to spring and autumn passage periods, reflecting the general pattern of occurrence at sites elsewhere in Great Britain. The relatively few records from November-March are generally storm driven birds too weak to cope with the strong gales: several come, for example, from the River Leri area where immature birds are blown east in the severest of winds and so are not utilising a habitat type by choice.

Age Ratios

Hutchinson & Neath (1978) reported immature birds as being three to four times more frequent than adult Little Gulls throughout the whole of the British Isles. However, the ratio of first year birds to adult and sub-adult second-year birds varies throughout the season in Ceredigion, with high proportions of older birds during November-April (Figure 5) from those Little Gulls which were specifically identified as to age. This pattern is presumably a result of adults and immatures both occurring on passage, whilst adults either winter further north or are more likely to be wrecked inshore than the immature birds. Hence only during May to October, when both sectors of the population are moving to and from summer areas, does the ratio of older birds to immatures fall below 25% of the total sightings identified.

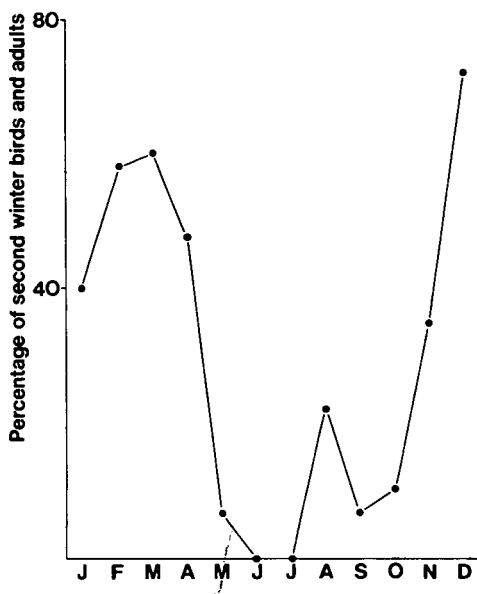


Figure 5. Relative percentage of 2nd year or full adult plumaged Little Gulls (*Larus minutus*) of all birds aged in Ceredigion 1968-83 inclusive.

DISCUSSION

Little Gulls winter in the Caspian, Black and Mediterranean Seas, as well as in the eastern Atlantic from West Africa as far north as Iceland and Greenland (Cramp & Simmons 1983). Erard (1960) and Hutchinson & Neath (1978) considered that there are two important wintering areas at the east and western ends of the Mediterranean with a second area in the North Sea, English Channel, Western Approaches and the French west coast. It would appear that the latter group is the source of winter storm wrecked birds in the British Isles, and the birds in Ceredigion, judging from the constancy of occurrence during periods of gales, must presumably be wintering not very far out from land. However, in several years, despite suitable weather, gales do not result in wrecks of Little Gulls and it may be that the birds use different areas of the wintering grounds in differing proportions according to season. In the year after the analysis (winter 1984/85), for example, there were no winter wrecks in spite of suitable weather.

The Little Gulls seen in Britain during spring and autumn are seemingly migrants from the western and central European breeding populations. Hutchinson & Neath (1978) considered adults moving from the breeding areas wait back in the Baltic and North Sea areas. Hence in Britain, immatures move through in autumn, but relatively few older birds appear until later, so that in October, most immatures have passed south and west, followed by sudden exodus of adult birds which constitute a high proportion of flocks at this time. The differential passage may be related to the fact that the adults winter further north than immature birds, so that these predominate in storm-driven groups at this time.

ACKNOWLEDGEMENTS

Thanks must go to all who have supplied records of Little Gulls in Ceredigion, especially to Hywel Roderick and Mrs. M. Chater who have taken particular interest in this species. My gratitude goes to the Cardiganshire bird recorder Peter Davis and to Hywel who collated and supplied me with all documented records. Will Evans at the Welsh Plant Breeding Station kindly permitted access to the meteorological data recorded at the Station. Adrian Fowles provided all extracted records from Professor Salter's diaries. Peter Davis, M de L Brooke and R.A. Hume all read and criticised an earlier manuscript and Pat McIlwraith typed the manuscript. My hearty thanks to them all.

SUMMARY

Little Gulls have occurred in Ceredigion since the turn of the century, generally as storm-wrecked birds after severe south/south west/westerly gales, but the numbers noted on spring and autumn passage associated with still weather patterns have increased greatly in the last fifteen years. This pattern fits with the general trend of increasing numbers identified in Great Britain although the numbers involved vary considerably from year to year.

REFERENCES

- CRAMP, S. and SIMMONS, K.E.L. 1983. *The birds of the western Palearctic*. Vol 3. Oxford University Press, Oxford.
 ERARD, C. 1969. Sur l'air reproduction, les zones d'hivernage et les migrations de la Mouette Pygmeé *Larus minutus* Pallas. *Alauda* 28: 198-228.
 FORREST, H.E. 1907. *Vertebrate Fauna of North Wales*. Witherby, London.
 HUTCHINSON, C.D. and NEATH, B. 1978. Little Gulls in Britain and Ireland. *Brit. Birds* 71: 563-581.
 INGRAM, G.C.S., SALMON, H.M. and CONDRY, W.M. 1966. *The Birds of Cardiganshire*. West Wales Naturalists' Trust 85pp.
 MATHEW, M.A. 1894. *The Birds of Pembrokeshire and its Islands*. Porter, London.

A.D. Fox, Nature Conservancy Council, Fraser-Darling House, 9 Culduthel Road, Inverness IV2 4AG.