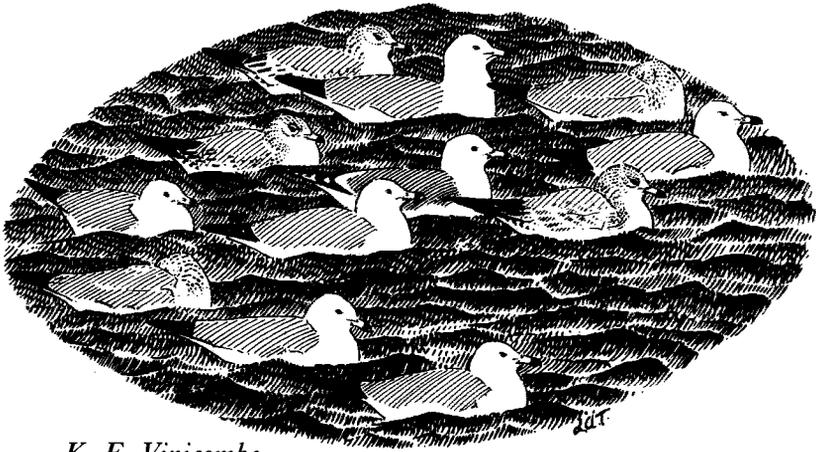


Ring-billed Gulls in Britain and Ireland



K. E. Vinicombe

On 14th March 1973, a then post-graduate geography student, Rob Hume, noticed a pale gull amongst a large flock of Common Gulls *Larus canus* resting on the beach at Blackpill, Swansea, West Glamorgan. To his eternal credit, he followed up the bird, took detailed notes, and identified it as Britain's first Ring-billed Gull *L. delawarensis*, an American species whose occurrence here had long been expected, but never proved

continued....

Table 1. Annual totals of Ring-billed Gulls *Larus delawarensis* recorded in Britain and Ireland from 1973 to 1983

1973	74	75	76	77	78	79	80	81	82	83
3	3	5	5	4	9	9	6	55	75	84

(Hume 1973). During the subsequent three years, a small group of Swansea students found more Ring-billed Gulls at Blackpill and by the end of 1975 a total of 11 individuals had been recorded (Vinicombe 1973, 1975). In 1976, the Blackpill monopoly was finally broken, and by the end of 1980 the British and Irish total had risen to 44 individuals from 11 counties, exactly half of these having been at Blackpill. Ireland recorded its first in 1979, with the first five coming from the Belmullet area, Co. Mayo. Subsequently, however, numbers in Britain and Ireland have increased dramatically: there were an astonishing 55 in 1981, 75 in 1982 and 84 in 1983 (table 1). What, therefore, has caused this sudden upsurge? Was there a genuine influx in 1981-83, or was the increase purely a result of greater observer-awareness of the species' identification features? If the influx was genuine, what caused it? What are the occurrence patterns? What of the future?

Annual fluctuations

There can be little doubt that Ring-billed Gulls were occurring here well before 1973, as evidenced by earlier ringing recoveries in the Azores in 1945 and in Spain in 1951 and 1965 (*BWP*), as well as a record of one in Germany in 1968 (*J. Orn.* 109: 438-440). The initial occurrences at Blackpill resulted in a wider understanding of the subtle field characters of the species, a process assisted by the coincidental appearance, in the March 1973 issue of *British Birds*, of a paper on its identification (Grant 1973). The sudden upsurge in 1981 was, however, quite remarkable, especially considering that only six had been recorded during 1980. Was the increase connected in any way with greater observer interest following the publication of a series of papers by P. J. Grant on the identification of gulls (Grant 1978-81), followed by their eventual publication in book form (Grant 1982)? To answer this question and to explain the recent increase, it is necessary to analyse the age structure of the records.

In any gull which takes three years to mature, the majority of individuals will be adult, followed by a smaller proportion of first-years and a small minority of second-years. This pattern may not, of course, hold true for vagrants, as most will probably be inexperienced first-years that are more susceptible to wandering off-course. If, however, the Ring-billed Gulls which arrive in Europe stay here, then a more normal age structure would be expected. A complication does arise from the fact that first-years tend to be less readily identified than adults and second-years. Table 2 shows an analysis of the age structure of the original 44 individuals, plus a breakdown for the three peak years, 1981, 1982 and 1983. The original records reveal a predictable pattern, bearing in mind that, in the early years, first-years were probably overlooked more than they are now. If the 1981 influx was genuine, then it would be logical to assume that the majority of new arrivals



151. Second-winter Ring-billed Gull *Larus delawarensis*, Co. Cork. March 1982 (Richard T. Mills)

Table 2. Age-structure of Ring-billed Gulls *Larus delawarensis* recorded in Britain and Ireland in 1973-80 and the three peak years, 1981, 1982 and 1983

The 1981 Northern Ireland records referred to as 'second-summer' in *Brit. Birds* (75: 508) were, in fact, first-summer (P. Vizard *in litt.*)

Years	First-year	Second-year	Adult
1973-80	29.5%	29.5%	41%
1981	65%	22%	13%
1982	21%	44%	35%
1983	18%	16%	66%

would have been inexperienced first-years, and that, if these remained on this side of the Atlantic and did not return home, there would have been a preponderance of second-years in 1982 and a preponderance of adults in 1983. This is exactly what table 2 reveals: 65% of Ring-billed Gulls in 1981 were first-year, 44% in 1982 were second-year, and 66% in 1983 were adult.

Table 3 shows the number of first-years recorded from 1973 to 1983; these totals should reflect the numbers of Ring-billed Gulls newly arriving in Europe. Although 1981 stands out as an influx year, good numbers

Table 3. Numbers of first-year Ring-billed Gulls *Larus delawarensis* recorded in Britain and Ireland from 1973 to 1983, reflecting the numbers of new arrivals occurring in Europe

1973	74	75	76	77	78	79	80	81	82	83
1	0	1	0	1	3	3	4	36	16	15

continued to be recorded subsequently, but it must be assumed that this was partially due to the fact that observers had 'got their eye in' during the 1981 influx and had, in some areas, taken more interest in their local gull populations.

Causes of the 1981 influx

Having established that the 1981 influx was genuine, I have consulted the 'Changing seasons' reports in the journal *American Birds* to try to ascertain its causes. These accounts refer consistently to recent large increases in the Ring-billed Gull populations, and there are repeated references to increased colony sizes, consolidation and spread into new areas (e.g. *Amer. Birds* 35: 918, 921, 940, 942; 37: 968, 970). So great has been the population explosion that five new colonies discovered in Ontario in 1983 included some 1,500 nests on an active rubbish dump, none of which, needless to say, was successful (*Amer. Birds* 37: 984). Against this background, a *gradual* increase in Ring-billed Gull numbers on this side of the Atlantic would perhaps have been expected, but the sudden influx in 1981 appears to have been due almost entirely to the weather.

152. Adult winter Ring-billed Gull *Larus delawarensis* moulting to adult summer. USA. February 1980 (*J. B. & S. Bottomley*)



Ring-billed Gulls from the Great Lakes and northeast Canadian population winter mainly down the American eastern seaboard. Under 1% remains in the northeastern United States, but 40-45% winter between the Carolinas and Florida, falling to about 12% in Texas (*BWP*). The winter of 1980-81 was bitterly cold in eastern North America. The cold weather arrived in December 1980 and remained throughout January 1981. In Ontario, one locality measured a record 231 cm of snow in December alone, while at Toronto Airport an all-time low of -31.3°C was recorded in January (*Amer. Birds* 35: 295). Farther south, the Hudson-Delaware region recorded exceptionally low precipitation and low temperatures and, on the coast, saltwater bays and estuaries were largely frozen by New Year's Day, forcing many birds to move to the ocean or farther south (*Amer. Birds* 35: 282), resulting in an unprecedented scarcity of many waterbirds. Even in Florida, temperatures reached freezing or below on 35 occasions and, on the night of 12th/13th January, the weather station at Tallahassee noted its second-lowest temperature on record: -13°C (*Amer. Birds* 35: 293). The effect of this weather on Ring-billed Gulls is not well documented, although larger numbers than usual were reported inland in parts of North Carolina, while 'thousands' were seen on a new refuse dump near Tallahassee (*Amer. Birds* 35: 291, 294). There can be little doubt that this severe weather, affecting as it did the main wintering areas in the southeastern USA, resulted in a dispersal which led to the European invasion.

The following winter, 1981/82, was also extremely cold, although it failed to produce such a large influx. Unlike the previous year, the cold did not generally set in until January, and many areas reported relatively mild spells in December and February (*Amer. Birds* 36: 261-262). It seems, therefore, that, despite severe cold in mid winter, the less protracted nature of the cold failed to provoke a more widespread transatlantic exodus. In total contrast, the winter of 1982/83 was exceptionally mild, with good numbers of Ring-billed Gulls lingering in many northern and inland areas (*Amer. Birds* 37: 279, 280, 292, 304).

Occurrence patterns

The early Blackpill records soon established a regular pattern of occurrence: (1) wintering adults from about late November to late March; (2) additional 'passage' adults in late March and April; (3) 'passage' second-years in April and May; and (4) summering first-years in June and July. Fig. 1 illustrates the occurrence patterns for Britain and Ireland, split into the three age groups; but to understand fully what is happening it is advisable to concentrate initially on fig. 2, which splits the arrival dates of first-years occurring in Cornwall and Dorset for the years 1981-83. Projecting as it does into the Atlantic, Cornwall is in a prime position to receive newly arrived Nearctic vagrants. The arrival dates in Cornwall fit neatly into three groups. First, there is an October record which was no doubt an inexperienced first-year bird that became caught up in a rapidly moving depression and swept across the Atlantic during the optimum migration period. The main arrival, however, was in the winter months, from December to the beginning of February, and it seems that some of these

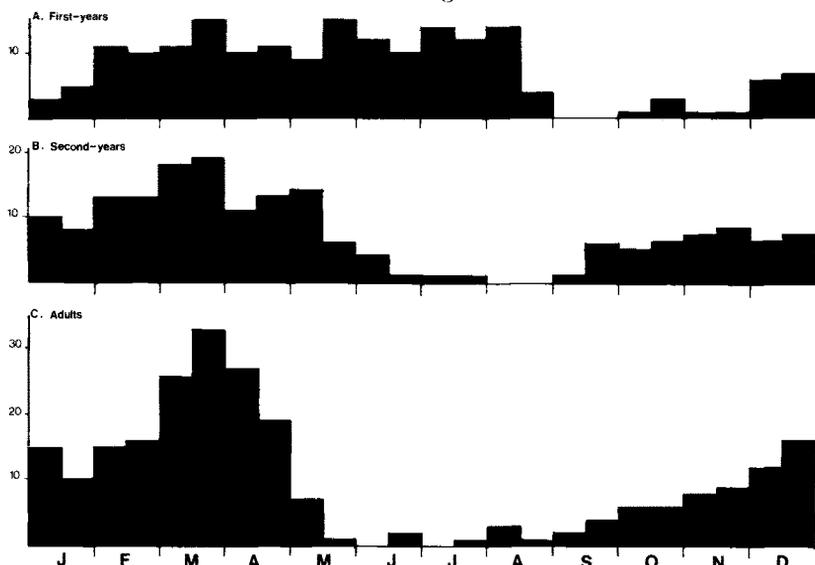


Fig. 1. Presence of first-year, second-year and adult Ring-billed Gulls *Larus delawarensis* in Britain and Ireland, 1973-83. (The cut-off date between first-summer and second-winter has been taken as 1st September)

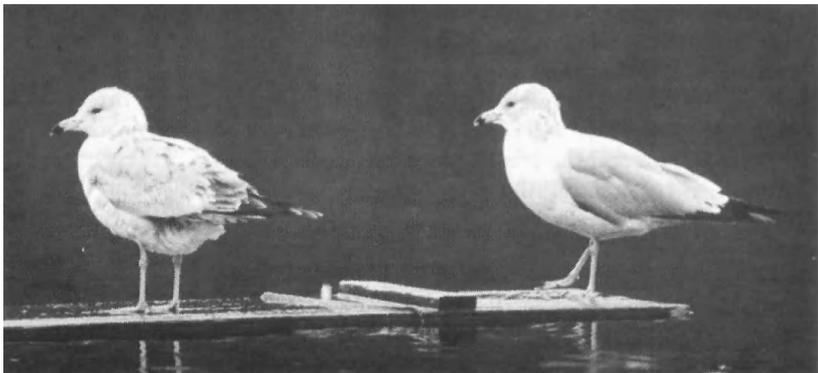
arrived in Cornwall as cold-weather refugees from North America. The third crop of records occurred in spring, from mid March until May; both areas recorded a spring influx although it was particularly marked in Dorset, which, being farther east, produced only one midwinter individual in that particular three-year period.

In North America, the spring migration of adult Ring-billed Gulls lasts from late February to early April, with colonies reoccupied from late March to early May (*BWP*). The pronounced late-March peak for all age groups (fig. 1) would, therefore, tie in with the timing of their normal migrations. There are two possible explanations for the spring peak in Britain and Ireland: it could be the result of a transatlantic crossing at that time, or it may result from a passage of birds that have wintered farther west or south. There is strong evidence that at least some American gulls that turn up in the English southwest peninsula move east up the English Channel in spring. In particular, a first-winter Bonaparte's Gull *L. philadelphia* at Penzance, Cornwall, in March 1981 and a first-winter Franklin's Gull *L. pipixcan* at Plymouth, Devon, from January to March 1982, both turned up subsequently in Weymouth, Dorset (*Brit. Birds* 75: 506 and 76: 499). In view of this, it seems likely that some of the Weymouth Ring-billed Gulls had wintered in Devon and Cornwall. This suggestion may, however, be an over-simplification, as other areas also recorded a small spring passage. It seems highly unlikely that the spring peak relates to birds that have newly arrived in Europe following a spring Atlantic crossing, as 78% of those recorded in late March were experienced adult and second-year birds which would not be so likely to make errors of navigation on such a large scale. It must be remembered that the main wintering range of the Ring-

billed Gull in the USA lies at a latitude equivalent to that of Spain and northwest Africa and it seems probable that many Ring-billed Gulls which cross the Atlantic hit Europe at a more southerly latitude; the records from Spain, the Azores, and more recent ones from Morocco (O'Sullivan 1984), France (*Brit. Birds* 75: 571) and the Azores, where there were as many as 50 in 1980 (G. Le Grand *in litt.* to P. J. Grant), must surely confirm this suggestion. It seems, therefore, that the spring peak partially related to individuals which have wintered farther south, subsequently following their northerly migration instinct and heading up the west European coast. The adults and second-years may well have established a regular north-south migration route on this side of the Atlantic. It should be mentioned, however, that this spring peak may be emphasised by the fact that increased spring day-length will allow gulls more time to loaf around in non-feeding flocks and, therefore, facilitate easier detection. Similarly, longer spring evenings and finer weather may provoke greater observer-activity. Concentrated daily observations at intensively watched localities, such as Radipole Lake (Dorset) and Blackpill, firmly indicate, however, that the spring passage is real and not merely a result of increased observation. Indeed, M. Cade (*in litt.*) has suggested that the spring peak may even be to some extent *under* emphasised, since short-staying migrants may easily be missed. The departure of adults following the spring peak is abrupt, with very few recorded after the beginning of May (fig. 1c). Records of adults in mid summer are decidedly unusual. Second-years follow the same pattern, but their spring departure is inevitably rather more leisurely. There is a gradual reappearance of adults in late summer and early autumn, an occurrence pattern which is consistent with their return from northern areas with the Common Gull flocks. Numbers then level off in mid winter.

In America, some first-years remain south during the summer (*BWP*), and this is a phenomenon clearly reflected in the British and Irish records. The spring influx of first-years is a protracted affair, with individuals appearing from late March right through to early June, with a peak in late May. They often spend the summer loafing aimlessly amongst residual flocks of Common and Black-headed Gulls *L. ridibundus*, but records at this

153. First-winter (left) and second-winter Ring-billed Gulls *Larus delawarensis*, Co. Cork, March 1982 (*Richard T. Mills*)



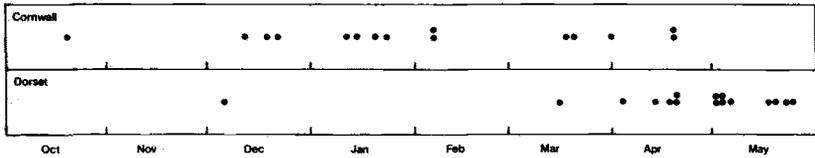


Fig. 2. Arrival dates of first-year Ring-billed Gulls *Larus delawarensis* in Cornwall and Dorset, 1981-83. (A few May records in Dorset could relate to earlier individuals reappearing)

time of year may be exaggerated to some extent because they will be easier to locate. Records decrease markedly in mid August, when there appears to be a dispersal.

It is interesting to note that the occurrence-patterns of Ring-billed Gulls are remarkably similar to those of the Mediterranean Gull *L. melanocephalus* (Hume 1976). In particular, the similar pattern of spring occurrences of first-years may further confirm that both species move north after wintering in southwestern Europe.

Geographical distribution

Fig. 3 clearly illustrates that most Ring-billed Gulls occur in southwest England, south Wales and Ireland: a pattern of occurrence to be expected of a transatlantic visitor. Notable, however, is the almost total lack of records in eastern and southeastern England, particularly the well-watched coastal counties from Lincolnshire to Sussex. The main areas of occurrence are based upon the centres of human population, which not only attract good numbers of gulls, but also produce suitably keen observers to check through them: Weymouth, Plymouth, Penzance, Swansea, Cork, Dublin and Belfast.

Allowing for the fact that a lot of Ring-billed Gull records relate to northward-moving birds in spring, it does seem odd that they are not more widely recorded at that time, particularly since there is a large-scale passage of Common Gulls through southeast England, thought mainly to involve Danish birds that have wintered on the west coast of France (Vernon 1969). Observers in eastern and southeastern England have been on the lookout for them, so maybe the bulk of returning Common Gulls with which they associate overfly these areas. This latter suggestion is borne out by radar evidence, which suggests that flocks migrate to the Continent in one continuous flight, usually too high for visual detection (Bourne & Patterson 1962). It does seem possible, however, that Ring-billed Gulls follow their American migration instincts and keep on a more direct south-north route, tagging on to British Common Gulls which head north through western Britain and the Irish Sea. L. A. Tucker and M. Cade (*in litt.*) have, however, suggested that the association between Ring-billed and Common Gulls may have been overemphasised. Ring-billed Gulls appear to be rather more versatile in their feeding habits than Common Gulls, and MC has noted that a number of the Weymouth birds have consistently fed around the town, rather than joining the daily exodus of field-feeding Common Gulls to the adjacent Dorset countryside. Dr M. A. Ogilvie (*in litt.*) also noted that the second-winter Ring-billed Gull at Slimbridge,

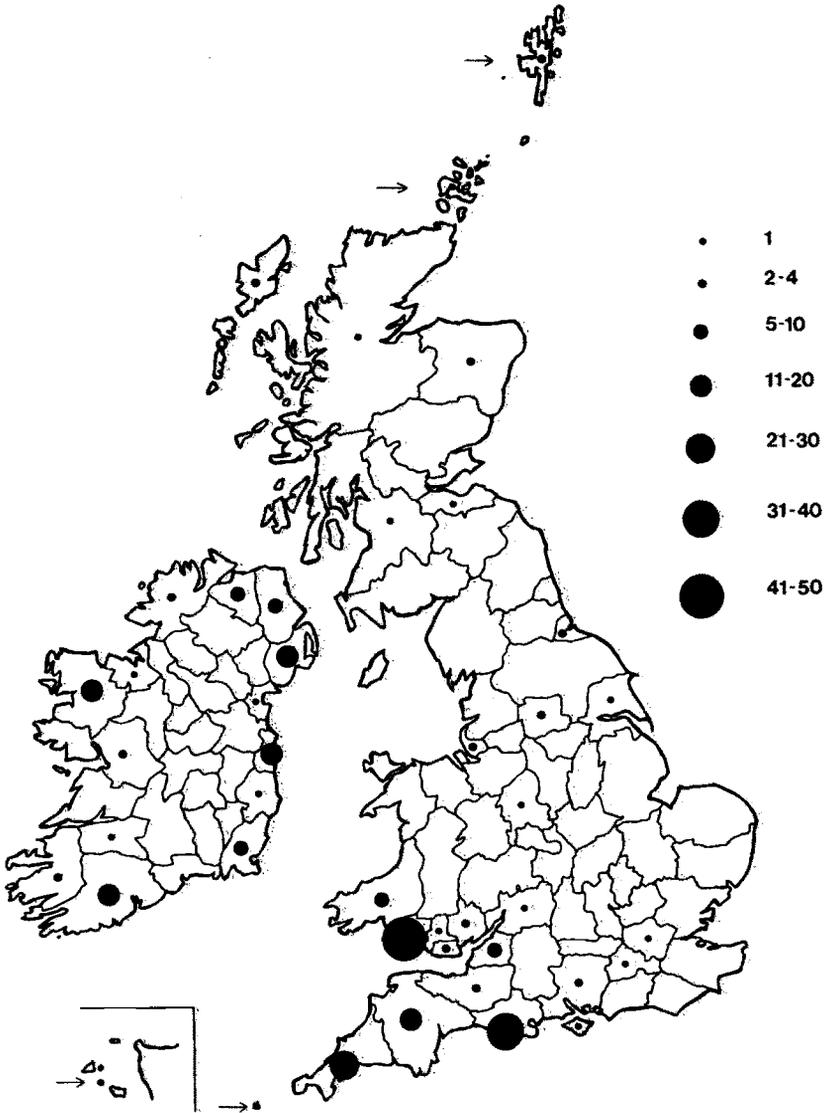
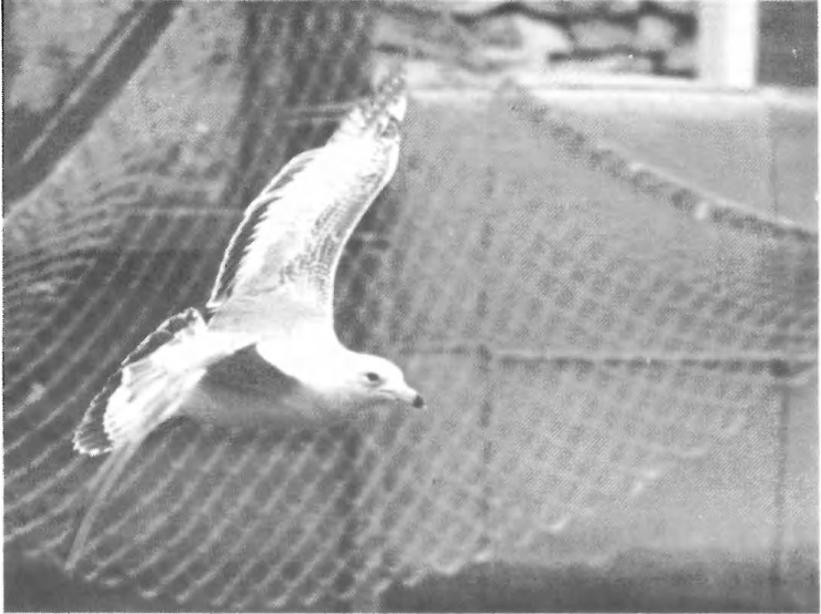


Fig. 3. Distribution by counties of Ring-billed Gulls *Larus delawarensis* in Britain and Ireland during 1973-83

Gloucestershire, in January 1982 fed with a few hundred Black-headed Gulls and not with the approximately 50,000 Common Gulls on the nearby Cotswold pastures. It could well be that Ring-billed Gulls are also rather more independent on migration than is generally supposed.

Relative abundance

At Blackpill in the mid 1970s, wintering adult Ring-billed Gulls were occurring in Common Gull flocks at a rate of one or two in about 2,000-



154. First-winter Ring-billed Gull *Larus delawarensis* moulting to first-summer. U.S.A. March 1981 (Jørgen Palmgren)

3,000. At the Weymouth roost, the corresponding winter figure is about one per 5,000 (M. Cade *in litt.*). Inland, this figure appears to drop considerably. At Chew Valley Lake, Avon, only one or two adults have been found wintering amongst a roost of up to 13,000 Common Gulls that feed mainly on upland pasture on the Mendips (Avon/Somerset) and Salisbury Plain (Wiltshire).

What of the future?

With a population explosion in North America and ever-increasing gull-awareness by British and Irish birdwatchers, there can be little doubt that the Ring-billed Gull will never return to its former extreme rarity status. It does seem, however, that the 1981 influx was exceptional, and that the high totals in the following two years resulted to a large extent from birds left over from that influx. Periodic influxes of this nature will no doubt recur, but it seems likely that, in the immediate future, Ring-billed Gull numbers will stabilise at a slightly lower level than at present. The current high numbers must inevitably increase the probability of future breeding in Europe, and spring adults have already been seen displaying at Blackpill (Davies *et al.* 1984, and personal observation) and at Radipole (M. Cade *in litt.*). Observers in northern areas would, therefore, be well advised to scrutinise Common Gull colonies during the summer. If the Black-headed Gull can colonise Canada, there would seem to be no reason why the Ring-billed Gull should not follow that initiative on the opposite side of the Atlantic.

Acknowledgments

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Summary

The first Ring-billed Gull *Larus delawarensis* to be recorded in Britain and Ireland was in 1973. Between then and 1980, 44 individuals were recorded. In 1981 there was a major influx of at least 55 individuals, followed by 75 in 1982 and 84 in 1983. The 1981 influx occurred against a background of substantial population increase in North America, but the invasion was thought likely to have been provoked by severe freezing weather on the North American eastern seaboard. The large numbers in the two subsequent years are thought to have mainly involved birds left over from the 1981 influx since the majority in 1981 were first-years, while in 1982 the largest proportion were second-years, and in 1983 most were adults.

The occurrence-patterns of Ring-billed Gulls are analysed. The main arrival of first-years is apparently in mid winter, but a pronounced spring passage of all ages probably involves mainly individuals which have wintered farther south. Adults and second-years subsequently disappear in mid summer, and it seems that they must head north with Common Gulls *L. canus*. First-summer Ring-billed Gulls often spend the summer around British and Irish coasts. The vast majority of Ring-billed Gulls have been recorded in southwest England, south Wales and Ireland, mostly around centres of human population. Very few have been recorded in the rest of Britain, with none on the east and southeast coasts from Lincolnshire to Sussex. Ring-billed Gull numbers will probably eventually stabilise at a lower level than at present, but it seems likely that they may breed on this side of the Atlantic.

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