

SPRING PASSAGE OF WHIMBREL THROUGH BRITAIN

S.J. White, November 2005

Whimbrel pass through Britain in spring on their way to breeding grounds in Iceland, the Faeroes and northern Fennoscandia from their African wintering grounds; in addition around 530 pairs breed in Scotland, mostly in Shetland.

The total European population is estimated at some 650,000 individuals and the threshold for international importance is set at 6,500. No threshold for national importance has been set since no good estimate of the British passage population exists, although Wetland Bird Survey (WeBS) reports consider any site supporting 100 or more as noteworthy. WeBS usually reports far fewer than ten sites recording 100 or more birds.

It is thought that the majority of Whimbrel passing through Britain in spring belong to the population which breeds in Iceland, the Faeroes and Scotland (*'islandica'*), whose population is estimated at 200,000-400,000 individuals. The overwhelming majority of Fennoscandian (*'phaeopus'*) birds are believed to migrate through continental Europe although some are known to pass through Britain, particularly on the east coast in autumn (Wernham *et al.* 2002).

The spring passage is made up of three components:

- A) birds stopping for several days at a small number of staging sites, feeding mainly on farmland, prior to onward migration.
- B) birds taking very brief breaks in their migratory journeys to rest or feed, mainly on estuarine sites.
- C) birds passing directly over Britain or its territorial waters without pause. Such birds make no active use of any British habitat – other than its airspace – and their precise migration routes are likely to vary considerably between years.

No comprehensive information on the size of any of these three components of the British spring passage has been published but a number of sources do exist, principally WeBS counts and records published in county bird reports.

WeBS data showed an average summed site maximum of 2,617 in Britain for the years 1993-1998, with a maximum of 3,883 recorded in 1998, when nine estuarine sites (mostly in East Anglia and SW England) held more than 100 birds. Brown & Grice (2005) cited average WeBS figures for England of 1040-1648 during 1996-2000. It is likely that the majority of these were Type B birds (see above) but some staging birds are known to be included. However, Whimbrel passage takes place during a very narrow, and highly predictable, period between mid-April and early May, and the timing of WeBS counts (usually around mid-month) undoubtedly means that some are missed and the above figures are likely to represent an underestimate.

WeBS figures are highly variable between years but give an indication of the number of sites supporting significant numbers. For example, in 1997 seven British sites recorded peak counts in excess of 100, while in 1999 only two held more than 50.

The number of birds staging in Britain is relatively small. Staging Whimbrel are found almost exclusively on wet pasture land during daylight hours, where they feed

on earthworms and leather-jackets. At dusk they congregate at a very small number of undisturbed wetland roost sites. Recent ringing and satellite-tracking studies in Yorkshire suggest that the average length of stay at staging sites is about six days (D. Tate *pers. comm.*). Birds use these staging sites to feed intensely to gain weight prior to onward migration and it is believed that the availability of such sites is of considerable ecological significance (Ferns *et al.* 1979). The precise functions and importance of staging sites for Whimbrel are unknown but the loss of such sites in eastern Europe has been suggested as a possible factor in the demise of the closely related Slender-billed Curlew (Gretton 1991).

The best-studied staging site was on the Severn Estuary, where Whimbrel used to feed in large numbers on the Somerset and Gwent Levels, roosting on Stert Island in the estuary, where the largest count recorded was 2,094 in 1973. The average spring peak roost count here during 1972-77 was 1,370 which were estimated at the time to be 74% of the British population (of around 2,000-2,500) (Ferns *et al.* 1979).

Draining of the Levels from the 1980s has dramatically reduced numbers in this area, to a maximum of 140 in 1992, 93 in 1998, 171 in 2000 and 92 in 2003. Drainage results in earthworms and other invertebrates moving lower in the soil, making them inaccessible to feeding birds.

However, significant numbers continue to pass through Somerset: average peak WeBS counts during 1996-2000 were 499 in April and 587 in May (Brown & Grice 2005), including birds at Cheddar Reservoir and Chew Valley Lake. Most are now believed to be Type B migrants.

The partial abandonment of the Somerset/Gwent staging area coincided with an increase in numbers staging in Lancashire from the late 1980s. Lancashire is now by some considerable margin the most important staging area in Britain for spring passage Whimbrel and combined counts at the four roost sites suggests an average annual peak total of 1,000 to 1,500 birds with perhaps as many as 2,000 passing through (Table 1). The feeding areas of the birds are poorly known but wet pastures are favoured almost exclusively and their feeding distribution extends from the West Lancashire mosslands to north Fylde and the fringes of the Forest of Bowland. The Lancashire passage population is not included in WeBS totals.

The country's second largest staging area is in East Sussex/Kent where birds roost at Rye Harbour. Peak counts of 200 or more have been recorded annually since at least the early 1980s with an average peak of 311 during 1990-2005 and a largest count of 601 in May 1996.

A similar but smaller roost site exists at Wheldrake on the Derwent Ings in Yorkshire, holding roosts of up to 130 birds in spring with an estimated total of 225 passing through the staging area annually (D. Tate *pers. comm.*).

During 2003 the total number of birds staging in England was estimated at 2,600, more than half of which were in Lancashire (D. Tate *pers. comm.*).

Lovegrove *et al.* (1994) estimated a total spring passage population in Wales of 50-200 at coastal sites but mentioned no staging sites other than the Severn. Thom (1986)

did not publish a passage estimate for Scotland but, in addition to the breeding population, cited only occasional counts in the region of 100-150 at a handful of coastal sites between 1965 and 1980.

Estimating the number of Type C migrants is fraught with difficulty. Almost all such records are coastal and the largest numbers are seen flying offshore along the length of the English Channel and North Sea coasts. Large seawatching counts include 960 past Beachy Head in 1976, 1,269 past Worthing in 1993 and 431 at Breydon Water in 1992 (Brown & Grice 2005). More recently, 650 passed Chapel Point, Cornwall in two hours on 28 April 2003. Detailed analysis of English county bird reports for 2003 suggest a maximum of 11,000 ‘bird-days’ (D. Tate *pers. comm.*) but this will have included a large degree of duplication and the number of individuals involved is likely to have been significantly lower.

Pulling together information from these various sources the various components of the British spring passage population (excluding Type C birds which make no active use of British territory) can be estimated thus:

- Scottish breeding population = 1,060 individuals (some at least of which are known to stage in England)
- Staging population = 2,500-3,000 individuals
- Type B migrants = 2,000-4,000 individuals

This yields an estimate of the total passage population of 5,500-8,000 birds, indicating that the 1% threshold for national importance could safely be set at 100.

This would make four feeding areas and ten or so roost sites eligible for consideration as SSSI in England, many of which are already designated as SSSI/SPA for other reasons, in addition to the Scottish breeding sites.

Table 1. Maximum counts of Whimbrel at spring roosts in Lancashire

	Barnacre Reservoir	Longton Marsh	Windy Harbour	Brockholes Quarry	Minimum Total
1990	491	No count	No count		491
1991	640	No count	No count		640
1992	823	296	223		1342
1993	775	421	No count		1196
1994	945	545	428		1918
1995	668	735	263		1666
1996	409	761	455		1625
1997	651	669	276		1596
1998	847	612	200		1659
1999	476	392	No count	110	978
2000	215	533	118	200	1066
2001	509	No count	88	234	831
2002	236	313	No count	186	735
2003	654	No count	No count	401	1055
2004	575	No count	No count	329	904

References:

Brown, A. & Grice, P. 2005. *Birds in England*. English Nature. London. T & AD Poyser.

Ferns, P.N., Green, D.H. & Round, P.D. 1979. Significance of the Somerset and Gwent Levels in Britain as feeding areas for migrant Whimbrels *Numenius phaeopus*. *Biological Conservation* 16: 7-22

Gretton, A. 1991. ICBP Monograph No 6.

Lovegrove, R., Williams G. & Williams, I. 1994. *Birds in Wales*. London. T & AD Poyser.

Thom, V.M. 1986. *Birds in Scotland*. Carlton. T & AD Poyser.

Wernham, C.V., Toms, M.P., Marchant, J.H., Clark, J.A., Siriwardena, G.M. & Baillie, S.R. (eds). 2002. *The Migration Atlas*. London. T & A.D. Poyser.