

WeBS counts: part of the bigger picture

Many of us take an interest in the weather, and if you spend time 'birding' you will appreciate the bearing it can have on the variety and abundance of species encountered. This can be especially true at wetlands in winter, where monthly visits of WeBS counters to over 2,400 sites in the UK provide vital information about numbers, distribution, and responses of waterbirds to cold weather, says Chas Holt.

A FREEZING WINTER: THINK OUTSIDE THE UK

Being located at a key point on the flyway of many wildfowl and waders, the UK's wetlands provide habitats for internationally important numbers of migrants, many of which breed as far afield as northeast Canada, Iceland and Siberia, before wintering at more southerly latitudes. The UK may assume even greater conservation importance during cold winters, when more birds will seek refuge on the relatively mild Atlantic fringe of northwest Europe. It is essential to understand if annual changes in numbers of birds using our wetlands reflect the status of species' total international populations, or in fact are attributable to climate-related changing distributions.

Cast your mind back two years. November 2010 to January 2011 saw the most severe spell of winter weather across northwest Europe since the mid 1970s. Heavy snowfall and sub-zero temperatures prevailed across the region, and thermometers dropped to -18°C in Northern Ireland, -22°C in Scotland, -42°C in Sweden, and even to -15°C at sea-level in France. Eastern Britain witnessed a marked arrival of geese normally found on the opposite side of the North Sea; in particular, European White-fronted Geese and Light-bellied Brent Geese (of Svalbard breeding origin) shifted from frozen parts of the Netherlands and Denmark. WeBS counters across the UK also recorded influxes of species like Wigeon, Smew, Goosander, Lapwing, Golden Plover, Dunlin and Bar-tailed Godwit as the cold conditions set in. At the Somerset Levels, impressive totals of more than 72,300 Lapwing and 50,000 Wigeon were the highest totals ever recorded of those species there. The UK is not always the end point of such movements though – Golden Plover numbers fell sharply across the UK in December, presumably due to onward movement to Iberia and other regions.



BUCKING THE TRENDS

In contrast to the cold of 2010/11, generally there has been a trend towards milder winter conditions across northwest Europe in the last 30 years. As a consequence, 'short stopping' of some species has become a feature of this period, with European White-fronted Goose being a prime example. Many sites in Britain traditionally used by 'Whitefronts' (such as Slimbridge in Gloucestershire) have seen numbers decline, but at the same time the wintering population in the Netherlands has increased considerably. A cold-weather-induced movement towards the UK in 2010/11 was therefore probably to be expected.

Owing to climate change, wetlands across Scandinavia and the neighbouring Baltic region have tended to remain ice-free in recent years, sometimes throughout the winter. Consequently, these areas can be used by waterbirds for longer periods, and there have been changes in overall wintering ranges

▲ **Wintering populations of waterbirds in the UK can be affected by the prevailing weather elsewhere in Europe. Following a drop in the mid 2000s, numbers of Bar-tailed Godwits have bounced back during recent cold winters.**



DAVID TIPLING davidtipping.com/WWW.DAVIDKJAER.COM

of diving ducks in northwest Europe. Species like Tufted Duck, Goldeneye and Smew have become a more conspicuous feature of the winter birding scene in Finland for example, while at the same time Pochard and Goldeneye have declined sharply on the western fringe of Europe, particularly in Ireland, Britain (Fig 1), France and the Netherlands. In Northern Ireland, counts at Loughs Neagh and Beg (internationally important for diving ducks) revealed more than 40,000 wintering Pochard as recently as 20 years ago – but the WeBS peak there in 2010/11 was only just over 5,000 birds. Research has shown that declines there are partly attributable to eutrophication (nutrient enrichment) which has affected invertebrate food supplies, but the situation is most probably a combination of that and a climate-related eastward shift of birds. Given that cold conditions across Europe in 2010/11 induced a westerly movement of ducks such as Smew and Goosander, it is concerning that the UK's wintering population of Pochard fell to its lowest-ever level and has now halved in the last 25 years – suggestive of a wider problem for the total population internationally.

There is uncertainty about future winter climate projections and potential impacts on Europe's wintering waterbird populations. Research into waterbirds and climate change is ongoing, and WeBS counts (particularly those in January, which form part of the annual International Waterbird Census coordinated by Wetlands International) are a key part of such studies. One thing is certain: the efforts of WeBS counters are a fine example of how the UK's volunteer network contributes to our understanding of population change.

GET INVOLVED WITH WeBS



WeBS is a partnership between BTO, RSPB and JNCC, in association with WWT. If you would like to count a wetland near you for WeBS, please contact us on webs@bto.org. Also check bto.org/webs, where you can download the latest report and find details of vacant sites where help with coverage would be especially welcome. You can learn more about the International Waterbird Census at wetlands.org/iwc.



▲ The UK and Ireland hold internationally important numbers of wintering Pochard, but numbers have been decreasing in recent years.

FIG 1. WeBS COUNTS: WINTERING POCHARD AND GOLDENEYE NUMBERS IN THE UK

