

WATERBIRD ALERTS

GRAHAM AUSTIN, SARAH JACKSON AND HEIDI MELLAN

*British Trust for Ornithology
The National Centre for Ornithology
The Nunnery, Thetford
Norfolk, IP24 2PU, United Kingdom*

Graham Austin, Sarah Jackson and Heidi Mellan, of the BTO's Wetland & Coastal Ecology Unit, explain the new standardised system of identifying significant changes in wintering waterbird populations in the UK.

ALERTAS DE AVES ACUÁTICAS

Graham Austin, Sarah Jackson y Heidi Mellan, de la Unidad de Ecología de Costas y Marismas del BTO explican el nuevo sistema estandarizado para identificar cambios significativos en las poblaciones invernantes de aves acuáticas en el Reino Unido.

Spring 2004 sees the launch of the Wetland Bird Survey (WeBS) Alerts reporting. Being internet based, this report represents a new venture for WeBS reporting. The full report will be available later this year at <http://www.bto.org/survey/webs/index.htm> where it will be possible to view it and download information for those regions or sites that may interest you.

THE NEED FOR ALERTS

The WeBS Alerts System was developed to provide a standardised method of identifying the direction and magnitude of changes in numbers, at a variety of spatial and temporal scales, for a range of waterbird species. Sufficient WeBS data are available for 33 species. Species that have undergone major changes in numbers can then be flagged by issuing an Alert. The Alerts are intended to be advisory and, subject to interpretation, provide a platform from which to direct research and subsequent conservation efforts if required.

UK MONITORING

The UK holds internationally important

numbers of non-breeding waterbirds, and government has agreed to international obligations to protect these populations. Monitoring is essential if populations are to be managed and conserved efficiently as both time and resources available with which to do so are finite. It is essential, therefore, that time and resources are directed towards where they are most needed. Numbers of wintering waterbirds have been recorded in Britain as part of WeBS. Wildfowl data have been collected from the majority of English, Scottish and Welsh sites since the late 1960s and the majority of sites in Northern Ireland since the early 1980s. Many of these sites are, or have been proposed as, Ramsar sites, Special Protection Areas (SPAs) or, in Britain, Sites of Special Scientific Interest (SSSIs) and, in Northern Ireland, Areas of Special Scientific Interest (ASSIs).

The Alerts system reports on changes in numbers at a number of spatial scales — the whole of the UK or Great Britain as appropriate for the species, the four constituent countries and protected sites (SPAs and SSSIs/ASSIs). The national trends of all species will be assessed annually, while each year, one in three SPAs and one in six SSSIs/ASSIs, with waterbird interest,

will be assessed on a rolling cycle. The WeBS Alerts System is concerned solely with highlighting changes in the abundance of waterbirds in Britain and Ireland outside the breeding season.

ESTIMATING ALERTS

WeBS assesses the Alerts status of a given species at either the country level or for a particular site by considering the proportional change in

numbers over the short-, medium- and long-term (last 5, 10 and 25 years respectively). This is calculated on a smoothed line fitted through the annual indices. This is important because, if using raw numbers, natural temporary fluctuations, for example those caused by variation in the severity of conditions over the winter period, could trigger false Alerts due to misinterpretation of temporary, short-term declines as longer-term trends. Alternatively, long-term trends that may have led to Alerts being flagged could be

TABLE 1. Alerts and percentage changes of waterbirds.

| Great Britain | First winter | Last winter | Alert | | | | Percentage change | | | |
|------------------------------|--------------|-------------|-------|-------|-------|--------|-------------------|-------|-------|--------|
| | | | 5-yr | 10-yr | 25-yr | Max-yr | 5-yr | 10-yr | 25-yr | Max-yr |
| Little Grebe | 85/86 | 00/01 | o | + | | ++ | 15 | 69 | | 544 |
| Great Crested Grebe | 82/83 | 00/01 | o | o | | + | 11 | 22 | | 67 |
| Cormorant | 86/87 | 00/01 | o | o | | ++ | -1 | 13 | | 163 |
| Mute Swan | 74/75 | 00/01 | o | o | + | | 14 | 31 | 98 | |
| Bewick's Swan | 74/75 | 00/01 | o | - | + | | -15 | -37 | 99 | |
| Whooper Swan | 74/75 | 00/01 | + | o | ++ | | 57 | 27 | 132 | |
| European White-fronted Goose | 74/75 | 00/01 | - | — | — | | -49 | -58 | -50 | |
| Dark-bellied Brent Goose | 74/75 | 00/01 | o | o | + | | -13 | -24 | 90 | |
| Shelduck | 74/75 | 00/01 | o | o | o | | -20 | -22 | 7 | |
| Wigeon | 74/75 | 00/01 | o | o | + | | -3 | 27 | 73 | |
| Gadwall | 74/75 | 00/01 | o | + | ++ | | 24 | 77 | 699 | |
| Teal | 74/75 | 00/01 | o | o | + | | 6 | 11 | 94 | |
| Mallard | 74/75 | 00/01 | o | - | - | | -12 | -28 | -27 | |
| Pintail | 74/75 | 00/01 | o | - | o | | -18 | -30 | -24 | |
| Shoveler | 74/75 | 00/01 | o | o | + | | 3 | 3 | 60 | |
| Pochard | 74/75 | 00/01 | o | o | - | | -12 | -8 | -28 | |
| Tufted Duck | 74/75 | 00/01 | o | o | o | | 8 | 13 | 8 | |
| Goldeneye | 74/75 | 00/01 | o | o | o | | -14 | -6 | 5 | |
| Red-breasted Merganser | 74/75 | 00/01 | o | o | + | | -18 | 7 | 80 | |
| Goosander | 74/75 | 00/01 | - | o | + | | -25 | -6 | 56 | |
| Coot | 82/83 | 00/01 | o | o | | o | 11 | 24 | | 31 |
| Oystercatcher | 74/75 | 00/01 | o | o | o | | 0 | -12 | 8 | |
| Avocet | 74/75 | 00/01 | + | ++ | ++ | | 73 | 223 | >2000 | |
| Ringed Plover | 74/75 | 00/01 | o | - | - | | -16 | -25 | -28 | |
| Grey Plover | 74/75 | 00/01 | o | o | ++ | | -17 | 2 | 196 | |
| Knot | 74/75 | 00/01 | o | o | o | | 6 | -5 | 15 | |
| Sanderling | 74/75 | 00/01 | o | o | o | | 18 | 18 | -6 | |
| Dunlin | 74/75 | 00/01 | o | - | - | | -24 | -26 | -39 | |
| Black-tailed Godwit | 74/75 | 00/01 | o | + | ++ | | 17 | 65 | 188 | |
| Bar-tailed Godwit | 74/75 | 00/01 | o | o | o | | -24 | -22 | -13 | |
| Curlew | 74/75 | 00/01 | o | o | o | | 14 | 17 | 31 | |
| Redshank | 74/75 | 00/01 | o | o | o | | 6 | 1 | -1 | |
| Turnstone | 74/75 | 00/01 | o | - | o | | -7 | -25 | -10 | |

Percentage change and Alerts over short (5 years), medium (10 years) and long term (25 years or maximum available if less than 25 years) of counts in the United Kingdom (waders) and in Great Britain (wildfowl and waders). Symbols: - Medium-Alert, — High-Alert, + Medium-Increase, ++ High-Increase, o No Substantial Change.

obscured by short-term fluctuations. The degree of smoothing is carefully chosen so that, while removing temporary fluctuations not likely to be representative of long-term trends, those aspects of the trends that may be considered to be important are retained. The proportional changes are categorised according to their magnitude and direction.

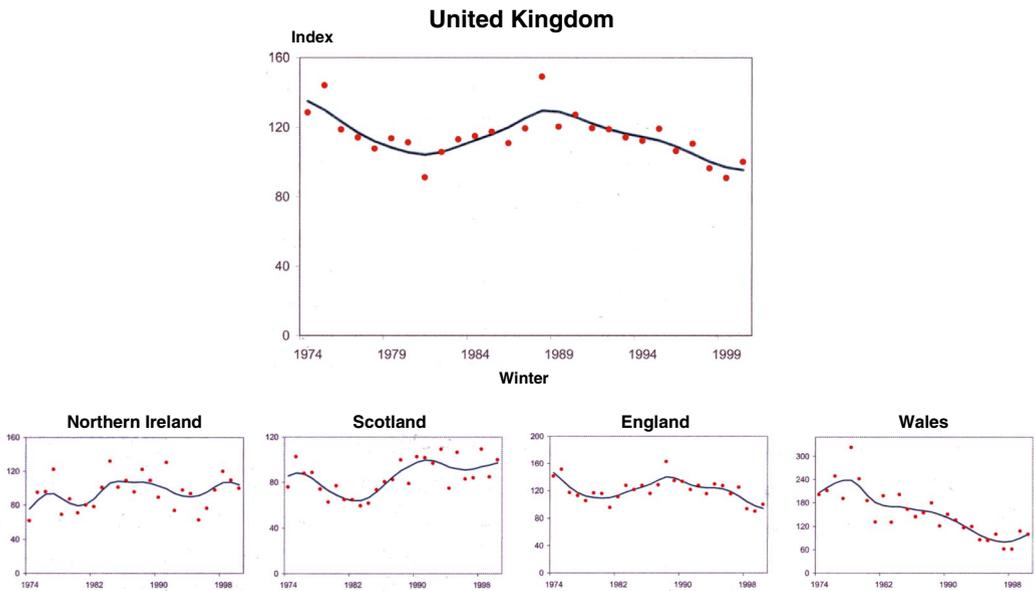
Population declines of between 25% and 50% trigger Medium Alerts and declines of greater than 50% trigger High Alerts. Although they do not trigger Alerts, increases of 33% and 100% (values chosen to be those necessary to return

numbers to their former size following declines of 25% and 50% respectively) are also identified (see Table 1).

Examples of trends from the report are shown below.

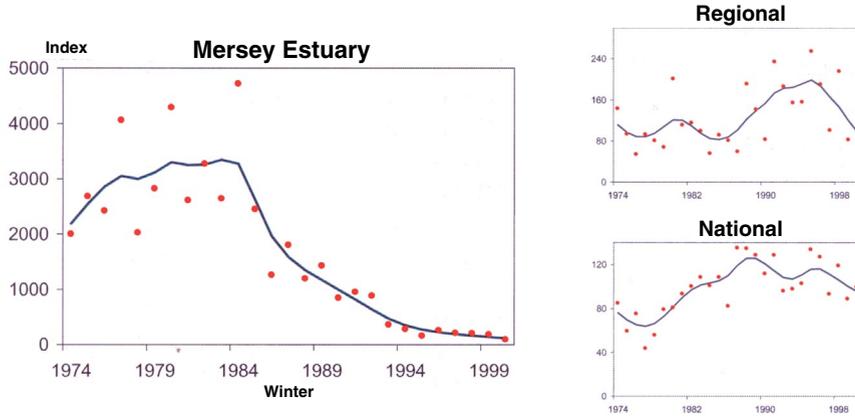
Alerts are there to bring apparent change in wintering waterbird numbers to the attention of managers, decision makers and politicians. Whether this is a real cause for concern then needs to be investigated further, or to assess if it simply reflects a regional or national trend. Further investigation of possible causes of declines may then be warranted.

BOX 1. RINGED PLOVER TRENDS



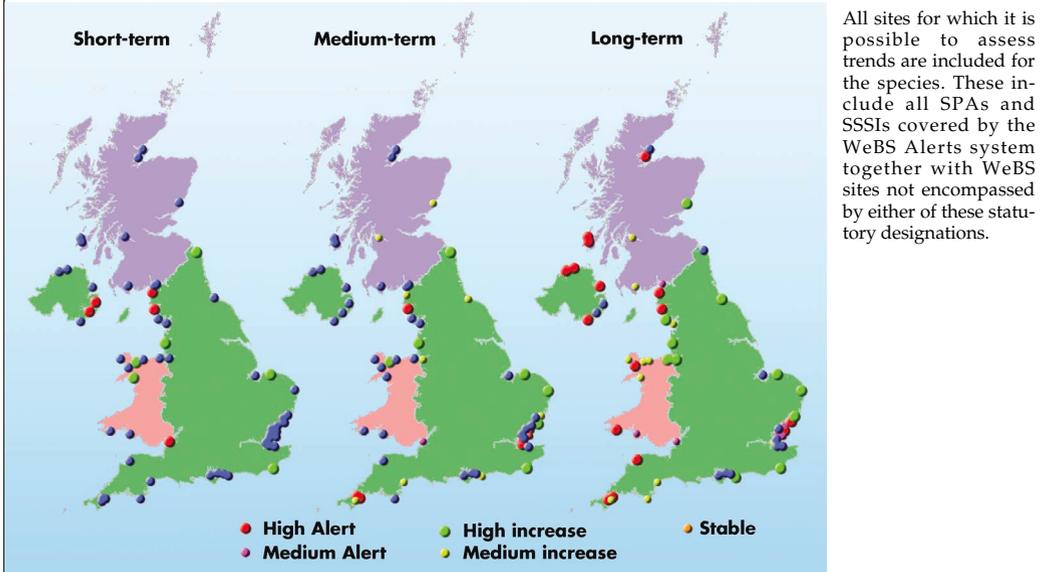
Annual indices and smoothed trends for Ringed Plover evaluated for the United Kingdom. Smaller charts show breakdown of these trends for England, Scotland, Wales and Northern Ireland (these are given full consideration in the relevant country sections of the report).

BOX 2. AN EXAMPLE FROM AN SPA ACCOUNT: PINTAIL TRENDS



Annual indices and smoothed trends for Pintail for Mersey Estuary SPA, Environment Agency Northwest Region (regional) and Great Britain as a whole (national).

BOX 3. GEOGRAPHICAL TRENDS IN ALERTS STATUS OF CURLEW



All sites for which it is possible to assess trends are included for the species. These include all SPAs and SSSIs covered by the WeBS Alerts system together with WeBS sites not encompassed by either of these statutory designations.