WeBS Newsletter

British Trust for Ornithology | WWT | RSPB | JOINT NATURE CONSERVATION COMMITTEE

No. 7 Summer 1997

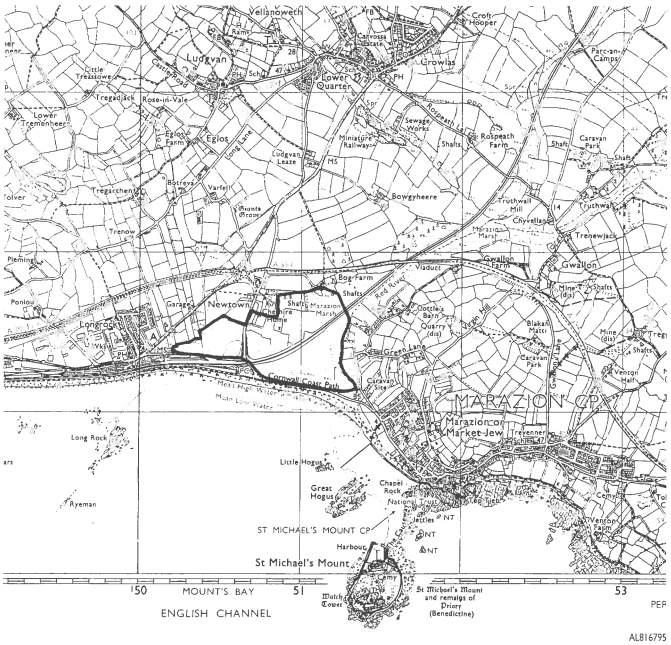
WETLAND BIRD SURVEY

WeBS Count Boundaries...

The current exercise of producing maps that depict the boundaries of areas counted by WeBS will prove invaluable for a number of reasons, as has been outlined in previous *Newsletters*. One key use will be to describe how data collected by WeBS may be applied to statutory conservation sites, such as SSSIs, as it will be possible to determine the degree of overlap between the different sites. A review of the relationships between these sites and WeBS count areas will be conducted to assess how count areas might be matched with designated areas, for example, Ramsar sites, if necessary. This is all some distance in the future, and relevant Local Organisers and counters will be consulted accordingly about any such proposals.

...and using the same boundary year, after year, after year

In the meantime, however, it is of paramount importance that the data collected by the Count Unit Definition Inventory remain valid, i.e. that the boundary used for count sectors and sites remains the same from one year to the next. This is also important for a host of other reasons, such as producing site assessments and national indices. In rare cases, it may be necessary to alter the count boundary, usually only when the wetland



area itself changes. Perhaps the most common example is where a new gravel pit is dug within an existing complex. In this case, it is important that you mark the new area counted on the existing CUDI form (see page 7) and return it so that we are aware of these changes as soon as possible. In all other cases, i.e. where the area of wetland is unchanged, **please consult with the National Organisers before making any changes to count boundaries** so that we can consider the implications for adjacent count units and our existing data. Thank you.

WeBS is the monitoring scheme for non-breeding waterfowl in the UK which aims to provide the principal data for the conservation of their populations and wetland habitats. The data collected are used to assess the size of waterfowl populations, assess trends in numbers and distribution, and identify and monitor important sites for waterfowl. A programme of research underpins these objectives. Continuing a tradition begun in 1947, around 3,000 volunteer counters participate in synchronised monthly counts at wetlands of all habitat types, mainly during the winter period. WeBS is a partnership between the British Trust for Ornithology, The Wildfowl & Wetlands Trust, Royal Society for the Protection of Birds and the Joint Nature Conservation Committee (the last on behalf of the Countryside Council for Wales, English Nature, Scottish Natural Heritage and the Environment & Heritage Service in Northern Ireland).

Shorebirds, Showers and Slippery Rocks

Mike Madders

In Scotland, the 1984/85 Winter Shorebird Count was an epic saga of birds, human endurance and a lost wellington. Whilst surveyors of the rest of the British coast sauntered along sandy beaches and basked in the gentle winter sun, we in the north stumbled over treacherous boulders and cobbles, leapt rocky chasms (where one slip would have meant certain death) and ploughed intrepidly through drifts of rotting seaweed. Again, whilst hoards of confiding waders posed obligingly in front of the massed optics south of the border, we struggled valiantly to hold our binoculars steady against ferocious winds in order to catch a glimpse of a purple sandpiper as it was blown around the headland in front of us.

My own involvement was limited to my local patch - that is, several hundred miles of the Argyll coastline. Fortunately, Earthwatch and other "expeditionary forces" were on hand to help the meagre number of local birders with our task. Members of these groups varied widely in just about every respect except one - their immense enthusiasm. With logistical guidance from Mike Moser, the survey organiser, we set about covering the exposed shores and sealochs.

Despite many misgivings about Paul McCartney's songs, I have to admit that he got it about right when describing the "mist rolling over the sea" on the Mull of Kintyre. Experience also suggests that further verses (in similar vein) could be added, dealing with Loch Fyne, the Firth of Lorn, Ross of Mull, or indeed the whole west coast of Scotland. Our spirits, at least were not dampened, and the birds, landscape and camaraderie did provide ample compensation. I guess few shorebird counters elsewhere were treated almost to daily views of Great Northern Divers, eagle and otters. Nor are they likely to have had the stunning island scenery of Arran, Jura or Mull as the backdrop.

The survey was punctuated with several moments of high drama, of which undoubtedly the greatest was the irrevocable loss of a wellington. This was not as careless as it sounds. Its owner - I shall call him Jeremy (as does everyone else) - was undertaking the survey of a particularly remote section of coast in the company of an Earthwatch volunteer. It is necessary to relate that the volunteer was female and very attractive, and that Jeremy was keen to make a good impression. So it was that when confronted with fording a fast flowing burn Jeremy, the only one wearing wellingtons, suffered a sudden rush of gallantry to the brain and quickly crossed, took off his boots and hurled them back across the burn for his partner to use. Sadly (wellington aerodynamics being what they are), one of them didn't quite make it and despite frantic attempts at rescue, floated downstream and out into the loch. I believe this was the only floating wader we recorded. Jeremy was retrieved from a farmhouse several hours later, one foot in a bowl of warm water and his chances were surely blown.

Is it really ten years since we did all this? Are we really so perverse that we want to do it all again? Sad isn't it?

(Anyone who may be interested in taking part in this winter's European Non-estuarine Coastal Waterfowl Survey should contact Steve Holloway or Mark Rehfisch at BTO).

Access to sites

Many sites visited for WeBS are privately owned, either by individuals or, as with many reservoirs and gravel pits, by companies. We strongly recommend that you seek permission for access to these sites, especially since health and safety rules may need to be observed, e.g. at some sites counters are asked to sign an indemnity form. Often, simply explaining the nature and purpose of WeBS is sufficient but, if gaining access through official channels proves difficult, we can provide a formal letter from the WeBS partners which hopefully will do the trick.

Contributions welcome

As well as providing information and feedback on the WeBS scheme from the partner organisations, we would also like to give counters and LOs a chance to contribute to the newsletter, and share their knowledge and findings on local WeBS-related studies. If you have an interesting story to tell resulting from counts in your area and would be willing to write a short article, please contact any of the WeBS National Organisers to discuss suggested topics.

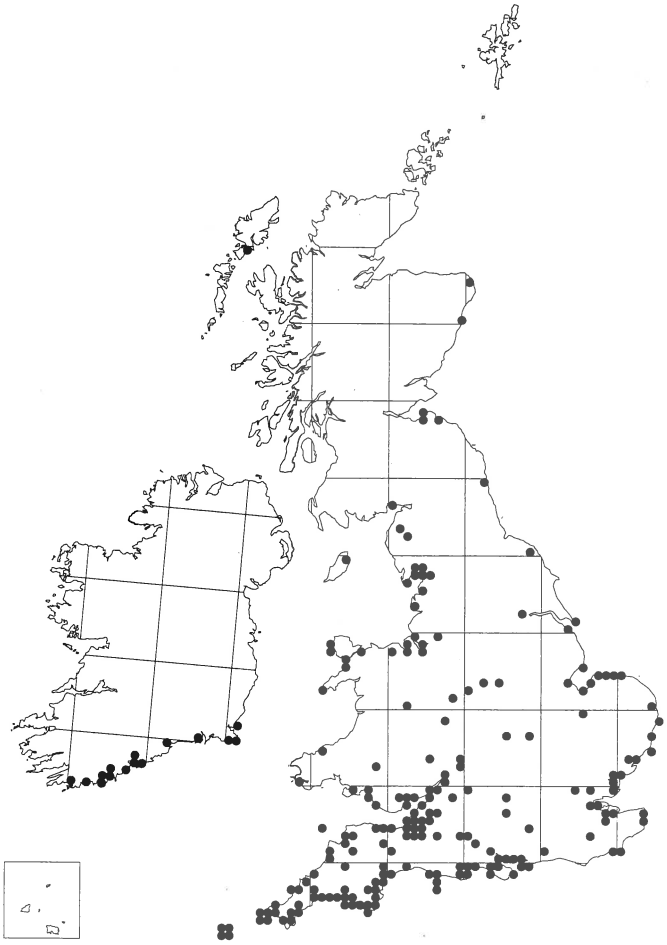
Little Egret Roost Counts

Andy Musgrove (BTO)

WeBS counters along the south coast will not need to be told that Little Egrets have increased dramatically in recent years. This stunning bird was considered a rare visitor until 1989 when an influx of over 120 birds was noted. Numbers have continued to increase throughout the 1990s and examination of the latest county bird reports suggests that the late summer peak now may exceed 1,000 birds. The species is found most commonly along the south coast, with the Solent, Poole Harbour and the Tamar complex being the three most important areas.

The Little Egret is counted for WeBS and, as such, it is important that this fascinating increase is fully documented. It can be surprisingly easy to miss egrets on estuaries, largely because they favour creeks within saltmarshes. It is often easiest to count them at dusk as many birds may then congregate in roosts. Many roosts are already counted on a regular basis but we would get a more accurate overall count if all of the roost counts were carried out on the same dates.

During the 1997-98 season, we are aiming for roost counts on just two dates, 21st September 1997 and 18th January 1998. I will be contacting the Local Organisers for most of the major egret sites in the next month or so to discuss the finer details. We are sure that these counts will be popular with observers who already enjoy watching these fabulous birds.



10 km squares in which Little Egrets were recorded in county bird reports for 1993. NB: Reports were not available for all counties and so some records will be missing.

Dark-bellied Brent Goose Survey

Counts are made each year in January and February as part of a national assessment of the numbers of Dark-bellied Brent Geese in Great Britain. The majority of birds are found on WeBS sites, but extra effort is required in these months to count birds on other areas, such as crop fields. Such counts were previously organised using separate mailings, but since the majority of data are provided through the existing WeBS network, we ask that the counters undertaking the extra counts submit these using additional WeBS forms or column(s) on the forms (please provide a map of the additional areas). Many thanks for your continued support.

Spreading the word....

Although a WeBS Counters' Conference is held every year to allow counters and WeBS staff to meet, we are happy also to broadcast the "WeBS message" at local bird club talks, meetings, etc. Please contact any of the WeBS National Organisers (preferably well in advance) to arrange suitable dates.

Also, we are aware that many LOs and counters help to publicise WeBS by giving talks to local bird clubs, RSPB groups, etc. If anyone is planning to give a presentation about WeBS and would like to receive some notes and background information about the history of the scheme and uses of the data collected, please contact any of the WeBS staff at BTO or WWT for further information.

In the 1940s, growing concern regarding a possible decline in wildfowl populations, and the inability to predict the impact of an increasing number of developments upon wetlands, made conservationists aware of the need for accurate count data. Thus, in 1947, the Wildfowl Count Scheme was pioneered by the Wildfowl Inquiry Committee of the British Section, International Council for Bird Preservation, "for the purpose of determining the status of wildfowl in Great Britain and ascertaining whether any long-term trends in populations were occurring".

A pilot survey in the first year, organised by the International Wildfowl Research Institute and based at the British Museum (Natural History), adopted the simple 'look-see' methodology for counting that has remained largely unaltered since that time. The relative ease of this method allowed for regular visits to sites and synchronised monthly counts were made at a limited number of waterbodies in early 1948, especially in the London and Birmingham areas. Coverage was extended in the following winter to around 300 sites, counted from late July through to March, with truly national coverage achieved in 1951-52. In 1954, jurisdiction of the National Wildfowl Counts (NWC) passed to WWT.

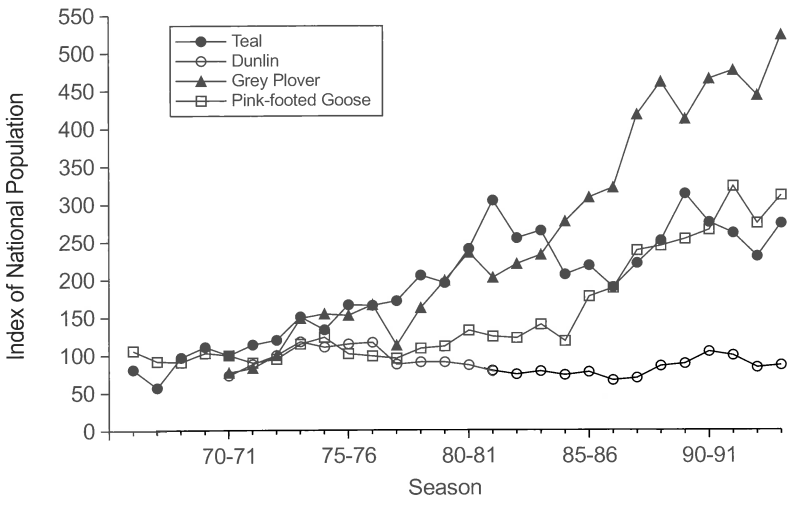
The initial objective of the scheme was to determine trends in numbers. Shortly after, with the passage of the 1954 Protection of Birds Act into law, the need to determine the size of winter wildfowl populations and to identify important sites was recognised, objectives which remain the same today.

Regular meetings between representatives from WWT, the Nature Conservancy and others about wildfowl issues, so-called 'tea-parties', were formalised by the 1954 Act as the Wildfowl Conservation Committee which charged WWT with surveying Britain's wildfowl so that refuges could be identified. Survey results for individual regions were presented successively at regular meetings of the Committee, and were later published as chapters in *Wildfowl in Great Britain*.

In the 1960s, the UK's increasing energy demands and requirement for water saw a large number of proposals for barrages and reservoirs on estuaries. A review by RSPB revealed large gaps in our knowledge of waders in particular and consequently a joint BTO/RSPB project was begun to survey estuarine birds. A first year of counts in 1969-70 was organised by BTO and the International Wildfowl Research Bureau, with an advisory committee comprising staff from many NGOs and Government bodies. Following this success, funding for the next five years of the Birds of Estuaries Enquiry (BoEE) was agreed. With the improved co-ordination on the larger sites, the BoEE became the principal source of waterfowl count data for coastal sites, wildfowl data being passed to the WWT for inclusion in the NWC database.

The number of species and the geographical area covered by the schemes, particularly in Northern Ireland, were increased gradually over time. In 1993, full integration was achieved with the launch of WeBS. The rest, as they say, is history!

The UK Government was involved from the start, and has continued to support and fund the scheme through its conservation agencies, presently JNCC. Indeed, the importance of the count scheme's objectives is recognised in the Government's recent publication of its Biodiversity Action Plan (its response to the Rio Convention on the Conservation of Biodiversity) which specifically



Trends in wintering populations for Pink-footed Goose, Teal, Dunlin and Grey Plover in Great Britain, 1966-67 to 1993-94.

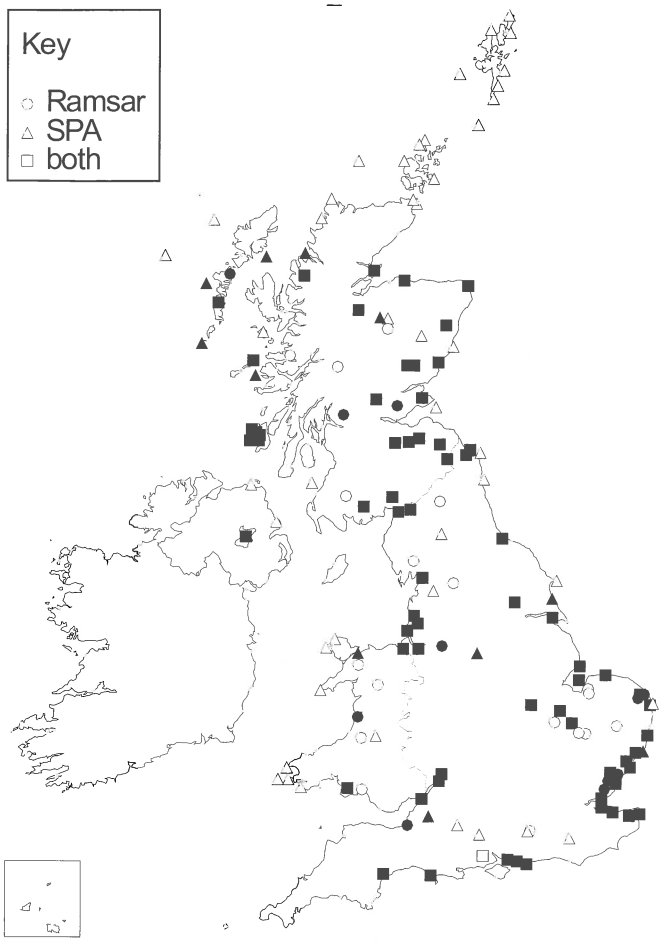
highlighted WeBS as an example of good practice. The count scheme also fulfils a number of obligations accepted by the Government under various conservation statutes, including national legislation and international directives and conventions to which the UK is party. The RSPB has also taken a keen interest in waterfowl monitoring, and has sponsored both schemes since the early 1970s.

The most important factor in the success of the scheme has been the involvement of the large numbers of knowledgeable and dedicated volunteer counters. In particular, Local Organisers charged with ensuring that the most important waters are counted, collating count data and advising on methods, are highly valued. Many counters have served for a considerable length of time, and a few who began in 1947 are still counting 50 years later.

The data, collected from the majority of the UK's wetlands, have enabled the fortunes of species to be traced and many insights into waterfowl populations to be learned. Encouragingly and almost without exception, the numbers of waterfowl counted have increased over the period.

These increases are due primarily to conservation measures, particularly the designation of refuges and statutory sites, and the effective management of reserves, and in part to the greater area of wetlands. Whilst natural wetlands have generally been reduced in number and area, the demand for water and minerals has seen the creation of numerous reservoirs and gravel pits, many in urban areas where previously few wetlands existed.

It should be recognised that many of the decisions and conservation measures which resulted in this increase were based on the evidence provided by the count data. Indeed, the extent of quantitative data on waterfowl led to the development of one of the few objective, numeric criteria for the identification of important sites, namely those adopted by the Ramsar Convention: 3(a) if it regularly supports 20,000 waterfowl, and 3(c) if it regularly supports 1% of the individuals in a population of one species or sub-species of waterfowl. These criteria are implicitly adopted by the EEC Directive on the Conservation of Wild Birds for identifying SPAs. Consequently, over three quarters of the Ramsar sites designated in the UK and almost two thirds of the SPAs notified under the Birds Directive hold internationally important numbers of waterfowl and were designated wholly or primarily for this reason.



Ramsar sites and Special Protection Areas (SPAs) designated in the UK by 1 September 1996. Circles indicate Ramsar sites, triangles indicate SPAs and squares indicate sites with dual designation. Filled symbols indicate sites designated due to their importance for waterfowl.

A further measure of the success is the many wetlands that have been ably defended against potentially detrimental proposals on the basis of data provided by the count scheme. Continued counts by WeBS should ensure that conservation arguments about waterfowl and wetlands are restricted to the issues at hand, rather than, as in the past, disputing the validity of the data.

How Predicting Waterfowl Densities can Help with their Conservation *Mark Rehfisch (BTO)*

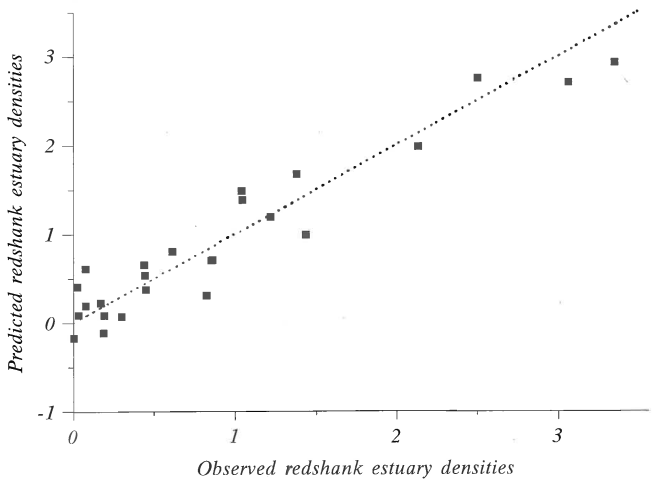
The United Kingdom has a relatively small land mass but outstanding wintering waterfowl populations. Attracted by a relatively mild climate and extensive areas of wetlands, notably estuaries, the UK supports around 17% of the estimated 17.5 million wildfowl which overwinter in north-west Europe and around 40% of the wintering waders of the East Atlantic Flyway. Entire or nearly entire populations of certain species of swans, geese and waders, as well as internationally important numbers of several duck species, make the UK their winter home. Most of these waterfowl have stable or increasing populations, but when concentrated on a few estuaries, they are potentially at risk from any changes to those sites. Present and foreseeable threats to wetlands include large-scale developments, natural change such as saltmarsh and coastal erosion and perhaps most importantly Global Climate Change.

The ability to predict the impact of such changes to the environment would be a powerful conservation tool that would make it possible to assess rationally our response to change. If a proposed marina, for example, were to lead to the predicted loss of 100 Dunlin and increase of ten Shelduck, the final arbitration could be based on any economic benefits as well as the impact on the waterfowl. Mitigation measures for the Dunlin could be incorporated into any agreement if the marina is built.

A joint BTO and Institute of Terrestrial Ecology project, with Department of Trade and Industry funding, was set up to assess whether it was possible to make such predictions. The project would have been almost impossible without the help of the dedicated counters who spent many days helping count the 27 specially selected estuaries. Briefly, the waterfowl were counted, their distribution mapped over two winters, aerial images taken of the estuaries and transferred to a GIS from which estuary size, area and sediment type could be made.

Mathematical models were then developed to make it possible to predict waterfowl densities on UK estuaries. Of course, the models were not as good for all species, but they largely explained why the most common species were more abundant in some areas than others. Most of the differences in the densities of Oystercatcher (75%), Dunlin (84%), Teal (68%), Lapwing (91%), Knot (73%), and Curlew (69%) could be explained. The best Redshank model, based on longitude (how far east) and estuary shape (a combination of estuary length, estuary width and tidal range), quite remarkably accounted for 87% of the variation in Redshank whole estuary densities (see Figure). The model shows the redshank density increase to the east and in long, thin estuaries with small tidal ranges.

It is often tempting to assume that all change has a negative impact, but this can be short-sighted. A cursory application of the Redshank model demonstrates that any development or habitat change that shortens an estuary will lead to a decrease in Redshank densities. However, if there is only a narrowing of the estuary width, Redshank densities could increase. It would be very exciting to apply these models to the big issue for waterfowl in the near future, i.e. the likely effect of Global Climate Change on the UK's internationally important waterfowl!



CUDI

Many thanks to all counters and Local Organisers for completing and returning the questionnaires and maps which will form the basis of the WeBS atlas of count boundaries (the Count Unit Definition Inventory - CUDI). Over the coming months, copies of forms displaying the updated information and map for each count unit will be distributed to the relevant Local Organisers and counters, allowing each to keep a permanent record of the area(s) they count. A big thank you to everyone in England, Wales and Northern Ireland for helping to compile this valuable and ongoing archive, and we hope soon to make progress on maps for Scottish sites.

Count unit names

Wherever possible, we have amended our existing (and often outdated!) count unit names to those recognised and currently used by existing counters, whilst at the same time standardising the way in which these are presented. For example, all count units on rivers and canals have been prefixed with the appropriate name e.g. *River Cam: Upware to Dimmock's Cote* or *Lancaster Canal: Stainton to Crookland*. **Please use the official name given on your updated CUDI form when submitting counts.** This will ensure that data are attributed to correct count units every year, even if the counters or Local Organisers change. If the official name or any of the other details on the CUDI form are incorrect, please amend the form and return it to your Local Organiser with your counts and we will redistribute a corrected version.
(See also the Count Boundaries article on the front page.)

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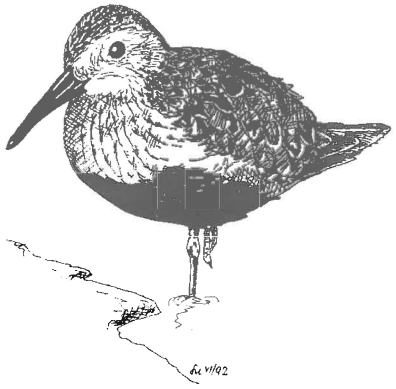
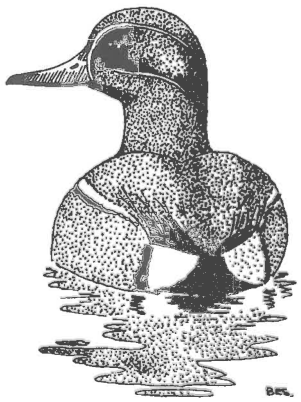
Wildfowl & Wader Counts 1995-96

We are planning that all counters should receive their copies of the Annual Report this autumn. Apologies for the delay, which is due largely to considerable staff time at the BTO being committed to the development of a WeBS database, which will soon enable more rapid and efficient use of WeBS data.



Drawing by Su Gough



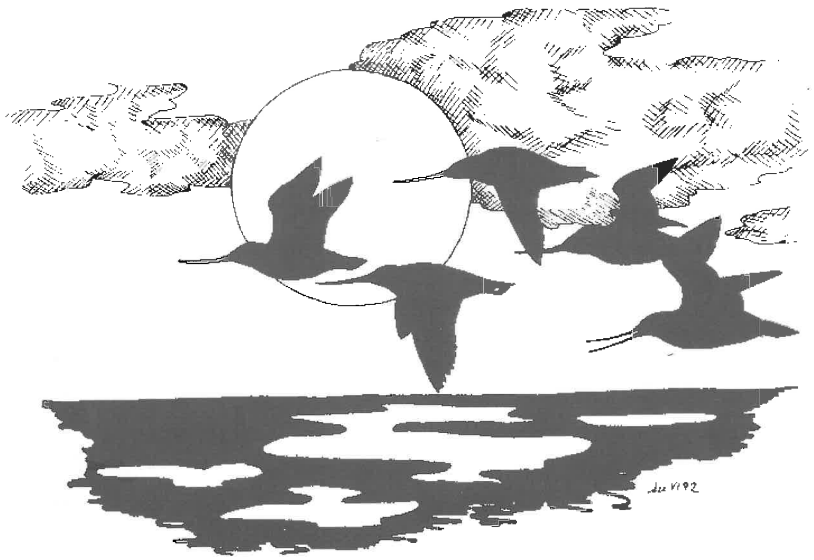
Drawing by Brian Slade

Does everyone want a report?

Each year the WeBS partners distribute around 4,000 copies of the Annual Report. A copy is provided free to all counters, and this is budgeted for by the WeBS partners. Several counters have expressed a wish not to receive a copy as a cost saving measure. We would like to emphasise that, although the report has a purchase price of £15, the actual cost of producing the report is much less. As counters, your efforts are well worth the few pounds the report costs! However, if you do not wish to receive a copy of the report, please inform your LO **and** Mark Pollitt at WWT so that we can update both mailing lists accordingly.

Earlier submission of WeBS count forms

Conscious of the need to provide feedback as soon as possible after the winter counts, the WeBS partners recently discussed ways in which we could publish the annual report more promptly. Following discussion with many Local Organisers, we agreed to bring forward the date by which the WeBS partners need to receive the winter counts from Local Organisers by one month. The key date will now be the **end of May**, by which time we need to have received all winter counts if they are to be included in the analyses for the 1997-98 report. Correspondingly, this will mean that Local Organisers will also require a prompt return of completed forms from volunteers after the March count. *Please help your Local Organiser by returning your completed count forms immediately after the March count.*



Drawing by Su Gough

MANY THANKS FOR ALL YOUR HELP

The great strength of WeBS, arguably the biggest count scheme of its kind in the world and the envy of many other countries, lies in the tremendous volunteer input from you, the counters. We hope that you will continue to support WeBS, and through it, the conservation of waterfowl and wetlands throughout the UK and abroad.

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