

## Bewick's and Whooper Swans *Cygnus columbianus bewickii* and *C. cygnus*: the 1990-91 season

EILEEN C. REES, JONATHAN M. BOWLER  
and LINDA BUTLER



Bewick's Swans *Cygnus columbianus bewickii* reached Britain exceptionally early in autumn 1990; by the end of October over 100 individuals had been recorded at Slimbridge, 740 at Welney, and 975 in the Martin Mere area. Information received from colleagues in the Netherlands suggested that the early movement of birds to Britain was associated with a shortage of *Potamogeton* in the Lauwersmeer, which has held up to 6000 Bewick's Swans in autumn in recent years. Hot dry weather in the Netherlands in mid-October is also thought to have deterred the swans from moving on to sugar beet (their alternative food supply in the Lauwersmeer area), due to a lack of water on the fields for the birds to drink (J. Beekman pers. comm.). Only some 2000 Bewick's Swans were seen on the Lauwersmeer in October and these quickly left.

Whooper Swans *C. cygnus*, conversely, were slow to arrive, with the main influx at Caerlaverock, Martin Mere and Welney not occurring until November. Results of the mid-monthly Wildfowl Counts will indicate whether the birds left Iceland a little later this year, or whether they spent more time at sites in northern Scotland during the autumn passage. Peak numbers of both Bewick's and Whooper Swans recorded at Trust Centres during the winter were similar to figures obtained for the sites in recent years except that Martin Mere held an impressive 1046 Bewick's Swans on 13 November. This count exceeded the previous Lancashire record, set in 1989-90, by some 400 birds. The record number of Whooper Swans at Martin Mere also rose slightly this winter, when 473 were counted on 16 December.

### Review of the season at Trust Centres

#### *Slimbridge*

The first four Bewick's Swans to visit the New

Grounds circled high over the Rushy Pen on 11 October, an exceptionally early date; the first to land were two adult birds that arrived on 14 October and remained for the rest of the winter. Over 100 different birds were identified at the site by the end of the month, with daily totals of around 85 birds. A lone adult Whooper Swan arrived on the Dumbles on 23 October and remained with the Bewick's Swans; it was seen on a near-daily basis throughout the season until its departure on 14 March. Numbers of Bewick's Swans rose steadily on the refuge through November with 133 on 5 November increasing to 155 on 16 November and 178 on 30 November. A total of 198 was recorded on 7 December but there were no large influxes before the year end with numbers rising slowly to reach 237 on 30 December. Amongst the December arrivals was "Prongy", first recorded at Slimbridge as a cygnet in 1965-66, returning for her 26th consecutive winter at the site. Although "Prongy" is now the oldest of our known wild Bewick's Swans, she was accompanied not only by her third mate, "Porcupine", but also by their first brood of one cygnet.

A small group of 30-50 Bewick's Swans visited Walmore Common (a traditional feeding site lying 10 km to the north of Slimbridge) throughout November but a lack of standing water prevented the birds from roosting at the site and instead they commuted daily to Walmore from the Slimbridge roost. Relatively dry conditions prevailed until the New Year and most of the swans fed within the New Grounds or on adjacent pastures. A single sugar beet field proved to be a major attraction, drawing the bulk of the flock throughout December. Heavy rain in the New Year encouraged many swans to desert the Slimbridge area, feeding and roosting instead on the flood waters at Walmore Common for much of January. A peak count of 264 Bewick's was made at Walmore on 21 January which, when added to the 123 birds recorded simultaneously at Slimbridge, produced a total

of 387, the highest count for Gloucestershire this winter. It seemed that some 150 swans had arrived in the county during the course of the month. Numbers began to rise again at Slimbridge in the last week of January, as birds returned from the shrinking floods at Walmore, and 270 were counted at roost on 30 January.

February brought the first severe weather of the winter. Persistent sub-zero temperatures and snow dominated the first half of the month; swan lake froze, except for an area in front of the observatories which the water circulation system kept free of ice. The swans still managed to find grazing on a field close to the Moors (an area of flooded meadows traditionally used by the birds some 1 km south of Slimbridge) where wind had blown the snow off the land, and 295 individuals were counted in this one field at midday on 5 February. The cold spell pushed numbers up at Slimbridge from 318 on 6 February to 362 on 18 February, the highest count of the winter. Although these figures appear low in comparison with the record 610 Bewick's Swans recorded at Slimbridge during hard weather conditions in January 1979, they are a substantial improvement on the maxima recorded at the New Grounds in the mild 1988-89 and 1989-90 winters. Numbers fell slightly to 337 on 26 February and this coincided with the appearance of 60 Bewick's at the Avon Meadows near Tewkesbury, Gloucestershire including several ringed birds that had been seen previously at Slimbridge. Numbers at this site dropped to 13 Bewick's (and four Whooper Swans) by 28 February and all the missing ringed birds were located subsequently near March, Cambridgeshire on 4 March, on the first stage of their spring migration to the breeding grounds. Numbers remained unseasonably high at Slimbridge; over 300 birds remained until mid-March despite the comparatively mild conditions early in the month. Bewick's Swans tend to leave in late February and the first week of March unless delayed by north-easterly "head" winds, and the swans at Welney and at Martin Mere did leave at this time. A full count of the New Grounds at midday on 12 March revealed a total of 304 birds still in the Slimbridge area, including 67 feeding on the Moors. Numbers dropped steadily thereafter, however, from 211 on 14 March to 125 on 21 March and 56 on 24 March. Northerly winds then delayed the final departure and all 56 birds remained on 27 March, the largest number ever recorded at Slimbridge on such a late date. With south-westerly "tail-winds" finally appearing in the last few days of March, numbers dwindled to 43 on 29

March and 13 on 30 March. By 1 April just two cygnets remained on the refuge.

During March, the swans increasingly visited the estuary of the River Severn where they were observed to feed in inter-tidal pools. Macrophytes were absent from these feeding areas, suggesting that the birds were grazing on the abundant benthic invertebrates present, predominately *Corophium* and *Nereis* species. The Bewick's Swans at Slimbridge have not previously been documented utilising an invertebrate food source, although the conspicuous Whistling Swan *Cygnus columbianus columbianus* of North America regularly feeds on molluscs in brackish waters on its wintering grounds.

A total of 463 Bewick's Swans was recorded at Slimbridge during the course of the winter including 107 (23.1%) juveniles. The mean brood size was high at 2.48 cygnets per family. The proportion of new birds recorded at the site was also higher than normal; just 156 (43.8%) of the 356 adults and yearlings had been recorded at Slimbridge in previous years. This is probably associated with the fact that 1989 was a good breeding year for the species; 51 (14.3%) of the birds recorded at Slimbridge during 1990-91 (excluding cygnets) were yearlings, and yearlings are more likely than adult birds to change their wintering sites. A number of birds returned after considerable absences; one swan, "Clemmie", had not been seen for eight years. A further 91 swans, originally ringed at Slimbridge but not present this winter, were reported elsewhere during the season including 18 birds identified on the Ouse Washes, ten at Martin Mere, five in other parts of Britain, five in Ireland, 40 in the Netherlands, ten in Germany and three in Denmark.

### Welney

The first Whooper Swan of the season, an unringed adult, reached Welney on 24 September, the earliest arrival date for the site. It was joined three days later by a lone Bewick's Swan, probably an injured bird that had remained at Welney at the end of the 1989-90 season and which had been convalescing at Peakirk. The next birds did not arrive until 8 October, when three more Whoopers flew in. Seven Bewick's Swans alighted at dawn on 14 October, including a ringed bird, "Bilco", who moved on to Slimbridge the following day. The subsequent build-up in Whooper Swan numbers was rather slow but a rapid influx of Bewick's Swans resulted in a total of 23

Whoopers and 740 Bewick's Swans in the Welney area by the end of October. The birds quickly settled into a routine of flying out at first light to feed on the remains of the potato and sugar beet harvest in the surrounding countryside, and not returning until dusk. A few birds were also seen in stubble fields but, generally, the swans selected the root crops.

Bewick's and Whooper Swans continued arriving at Welney during the first half of November; some 2500 birds were seen at dawn on 9 November, with a count on 19 November yielding 3200 Bewick's and 385 Whooper Swans. There was little water on the Ouse Washes in autumn, due to the hot dry summer, so the birds roosted mainly on the artificially flooded areas on the Welney reserve, where over 1000 could be seen under the floodlights every evening. During the day, both species developed a distinct preference for the harvested sugar beet, which is believed to have had a high sugar content this year. There also appeared to be fewer waste potatoes on the fields in comparison with recent years; farmers indicated that the potatoes were smaller, due to the dry summer, and that a smaller web was used on the combine-harvesters. A number of familiar birds were identified by ring number or bill pattern in October and November, including "Jingle" and "Bells" who were seen with their cygnet under the floodlights on the evening of 4 November, only to be recorded at Slimbridge early on the following day. Several Whooper Swans that had been ringed in Iceland in recent years also arrived, as did the Welney-ringed favourite, "Cod", accompanied by a new mate.

Following the sad death of some 50 swans that flew into power lines in thick fog in December 1989, meetings were held with the Eastern Electricity Company and the National Grid Company with a view to marking sections of wire to make them more obvious to the birds. Eastern Electric kindly attached bright orange spheres to one stretch of line in late November and no casualties were found in this area for the rest of the winter, although the fields adjacent to these wires were not used intensively by the birds in 1990-91. A second stretch will be marked in 1991 when field conditions allow vehicles closer access to the wires; both areas will continue to be monitored to see whether there is a significant reduction in the number of birds that collide with the cables.

The mid-monthly count on 16 December found a record 3707 Bewick's Swans on the Welney reserve, contributing to an estimated figure of at least 4050 Bewick's Swans on the

Ouse Washes on that day. Some 470 Whooper Swans were also counted at Welney; the same figure was obtained for the whole of the Ouse Washes, but this was thought to be an underestimate of the birds in the area. The water levels rose slightly in early January, giving the swans alternative roost sites on the Ouse Washes, and the number of swans returning to the Welney lagoon fell from 2000 to less than 1000 each evening. Several Whooper Swans were identified by ring number in the New Year, however, including "Ubi" who was first ringed at Welney in 1980, indicating that more Whooper Swans had arrived in the area. The season's maximum count of 561 Whooper Swans was recorded at Welney on 11 January; the mid-monthly count on 14 January found some 5000 Bewick's Swans on the Ouse Washes (including 2450 at Welney) and 554 Whooper Swans (all seen on the Welney reserve). Both Bewick's and Whoopers continued flying out to feed on farmland close to the reserve but by mid-month the land was very wet, and farmers, concerned that the birds may be puddling the crop, made efforts to move the swans from the fields. As a result of the increased disturbance, many swans remained on the reserve in the second half of January to feed on potatoes provided on the main lagoon and Guinness wash. They also grazed on Tiark's wash which contained a mixture of creeping bent *Agrostis stolonifera* and reed sweet-grass *Glyceria maxima*.

The severe frosts and snow in early February caused the main lagoon to freeze. Many swans opted to roost on the River Delph, although aquatherms kept a small area of water open in front of the observatory. The grain feeds at Welney were increased during the severest weather and the swans only flew to the fields for short periods before returning to the reserve. The thaw set in during the third week of February but the count on 18 February still found 4497 Bewick's and 426 Whooper Swans on the Ouse Washes, including 2659 Bewick's and 395 Whooper Swans at Welney. Over 2000 Bewick's and 400 Whoopers remained at Welney into early March but most of the Bewick's Swans started their spring migration on the weekend of 9-10 March, leaving just 305 Bewick's and 429 Whoopers at dawn on 11 March. Thereafter numbers declined to 85 Bewick's and 402 Whoopers on 18 March, with just 14 Bewick's and 40 Whoopers present on 28 March.

The percentage of juveniles in the population was 19.2% (out of 629 birds recorded on 25 January) for the Bewick's Swans and 16.4%

(out of 373 birds recorded on 12 January) for the Whooper Swans. Sixty Bewick's Swans were identified by their ring codes in the Welney area during the winter including 29 birds originally ringed at Slimbridge, 19 ringed at Welney, one from Caerlaverock and seven birds ringed in the Netherlands. Four Bewick's Swans ringed in November at Pensthorpe Waterfowl Gardens, near Fakenham, Norfolk, were at Welney from December onwards. No Bewick's Swans ringed at Welney have been reported outside the Welney area so far this winter, although there may yet be news from the Netherlands. Thirty-three Whooper Swans were also identified: 17 ringed in Iceland, 14 at Welney and two at Caerlaverock.

#### *Martin Mere*

Although the first Whooper Swan of the season reached Martin Mere comparatively early, on 24 September, none were then seen until seven more arrived on 7 October. The subsequent build-up of the Whooper Swan flock was slow; 29 were recorded on 8 October but only 25-30 were present for most of the month, rising slightly to 40 at dusk on 31 October. The Bewick's Swans, however, poured in. The first 15 birds arrived on 15 October, 89 were present by 21 October, 337 on 22 October and at least 550 were seen on 25 October, of which 200 remained on the Mere throughout the day. On 27 October, a flock of 821 Bewick's Swans was seen in a field off Shore Road, Hesketh Bank, which, with 154 individuals at Martin Mere at that time, gave 975 Bewick's Swans in the area, exceeding the previous Lancashire record for the species by some 300 birds. Surveys on 29 and 30 October found "only" 594 Bewick's Swans, however, which suggests that some of the birds had moved on to other wintering sites, possibly in Ireland.

The Whooper Swans eventually arrived at Martin Mere in early November; 75 were counted on the evening of 1 November, 277 on 2 November, 345 on 7 November, 411 on 21 November and reached a new site record of 448 on 30 November. Over 300 of the Whoopers came up to feed on the grain distributed each morning and evening; mostly they used the feeding area in front of the Gladstone Hide whereas the Bewick's Swans used the Raines Hide feeding area. Numbers of Bewick's Swans at Martin Mere also rose to 713 on 2 November (exceeding the previous site record set last winter), 1018 on 7 November, and peaked at an impressive 1046 on 13 November, the maximum count of the season. Some 200-300

Bewick's and up to 200 Whooper Swans generally remained on the Mere throughout the day during November. Others flew just 50 m to graze on a new ley of grass on the other side of the road from the Visitor Centre. The Bewick's Swan counts dropped to 488 on 30 November, as the birds moved to other sites in the area, but some 300 were roosting and feeding at nearby Longton Marsh on the Ribble estuary.

Cold conditions in December and January brought many of the Bewick's Swans back to Martin Mere, with 700-800 present for most of the month, rising to 818 on 23 December, 895 on 4 January, and with regular counts of over 900 thereafter. Small numbers started commuting to graze on pasture at Pool Hey Lane, near Bescar, towards the end of December, and this became an important feeding site for the birds in the New Year. Whooper Swan numbers also rose slightly to 469 on 6 December and 473 on 16 December, the maximum count of the season. Towards the end of December, the swans started feeding on fields on the reserve, the Bewick's Swans mainly flighting to the Plover Field and the Whoopers to Outer Vinson's. The proportion of cygnets in the Bewick's Swan flock proved lower than at Welney and Slimbridge: just 50 (11.5%) of 435 Bewick's Swans at Martin Mere mid-morning on 18 December were juveniles. The Whooper Swans seemed to have had a good breeding year, however; 63 (17.6%) of 357 birds checked on 18 December were juveniles, which is similar to the figures obtained at Welney and Caerlaverock.

There was a drop in the number of Bewick's Swans, to around 750 during the last week in January, but over 900 were seen regularly at dawn and dusk during the first half of February. Counts then declined to 777 on 19 February, 512 on 28 February, and 306 on 1 March, as the birds started their spring migration. Just ten Bewick's Swans remained by 15 March and the last four birds departed by 20 March. Over 400 Whooper Swans were present until the second week of March but they too departed mid-month, with counts of 282 on 10 March, 192 on 16 March and 133 on 19 March. Although most of the Whooper Swans remained on the refuge throughout the day during the second half of the winter, up to 455 Bewick's Swans were seen grazing at Pool Hey Lane in January and February. Good numbers of Bewick's Swans also used the fields on the Martin Mere reserve.

In addition to the swans ringed at Martin Mere for the first time during the 1990-91 winter (see below), a further 17 Bewick's Swans and 23 Whooper Swans were identified by ring

number during the season. Two unringed Bewick's Swans, named "Antoine" and "Antoinette", were identified by bill pattern as birds that had wintered at Slimbridge from 1986-87 to 1989-90 inclusive. One of the Bewick's Swans had originally been ringed at Caerlaverock, one in the Netherlands, two at Martin Mere in January 1987 and 13 at Slimbridge. Of the Whooper Swans, just three had been ringed at Caerlaverock and the rest in Iceland. Three orange/yellow-legged Bewick's Swans and one pale-legged Whooper Swan were also seen during the winter.

#### *Caerlaverock*

The first wild swans to arrive at a Trust reserve were four Whooper Swans seen at Caerlaverock on 21 September, the earliest arrival date for the site. Three of these were ringed birds caught at Caerlaverock during the previous winter. They were joined by two more on 1 October but only 23 were present by 18 October and 43 by 26 October, comparatively low counts for the time of year. Two Bewick's Swans also arrived on 18 October, to be joined by a further nine on 22 October, giving the fairly high count of 11 for the reserve.

The Whooper Swans eventually arrived in numbers in early November with 87 present on 1 November, 142 at roost on 4 November, and 154 on 5 November (including 26, 16.9%, cygnets). Thereafter there was a slight increase to 160 on 16 November with little further change until the end of the year.

The Caerlaverock Whooper Swans generally show a very high level of winter site fidelity and a substantial proportion of the adults and yearlings were found to have been ringed at Eastpark in previous years. Of the 110 birds identified by the end of the year, 102 had originally been ringed at Caerlaverock and just seven at sites in Iceland. One bird ringed at Hoganfield Loch, Glasgow, in June 1989 appeared at Caerlaverock on 13 November. The seven Icelandic-ringed birds came from a variety of sites: two from Jokuldalsheidi, E. Iceland; two from the Myvatn area; and three from Skagafjordur, N. Iceland. A further eight ringed birds reached Caerlaverock during January and two in February; these, too, had previously been recorded at Caerlaverock.

The number of Whooper Swans at Caerlaverock held steady at around 170-180 throughout January and February. Several ringed birds were also found in smaller flocks in the surrounding area, including those at Scotby

Holmes, Cumbria; at Cargo, Cumbria; at Kirkbride, Cumbria; at Small Holm, Locherby; and at Crichton Farm, near Dumfries. As in previous years there was little evidence for any interchange between these flocks. The Caerlaverock counts peaked surprisingly late, with 192 present on 14-15 March, the maximum count of the season. The influx did not bring any new ringed birds to the site, however, and numbers soon decreased to 156 on 24 March, 107 on 25 March, 37 on 26 March, and 24 by 31 March. Some 70-80 Whoopers also remained at nearby Crichton Farm on 28 March.

#### *Arundel*

As in previous years, only small numbers of Bewick's Swans were seen at Arundel during the early part of the season. Up to ten were roosting in the wild area during the cold weather in the first week of December but 78 were recorded on the evening of 19 December - consisting of most of the migratory swans present in the area. The swans deserted Arundel with the thaw in early January but up to 69 were seen regularly during the winter weather in early February, when icy conditions displaced the birds from their usual feeding and roosting grounds in the Amberley-Pulborough area. The wild area at Arundel also froze in mid-February, however, and most of the swans moved to the coast for the rest of the winter, where they are thought to have roosted on the River Arun at Ford.

#### **Ringling**

Since 1988, The Wildfowl & Wetlands Trust has been involved in ringling Whooper Swans on their Icelandic breeding grounds. This work continued in summer 1990; a total of 220 birds was caught, weighed and measured: 149 at Myvatnsheidi (with Sverrir Thorstensen and Aevor Petersen), four at Jokuldalsheidi and 67 at Skagafjordur. These included 51 cygnets (from 20 broods) and 34 swans that had been ringed in previous years. Blood-samples were taken from 80 individuals - mainly families - for genetic fingerprinting. Icelandic ringers marked three birds at Tjornin, central Reykjavik on 28 December, and a further four individuals at the same site in April. Two other ringed birds were seen at Tjornin in spring 1991, the first to be recorded on the lake. One had been ringed at Caerlaverock as a cygnet in December 1988 and

had wintered at Eastpark in 1990-91; the other had been ringed at Skagafjordur, N. Iceland, as a cygnet in 1988.

One of the highlights of the winter season was the inauguration of the new "swan-pipe" at Martin Mere, similar to the old duck decoy tunnels in design, and with a drop gate rather than the swing gates used at Slimbridge, Welney and Caerlaverock. An "unofficial" catch of eight Pink-footed Geese was made on the morning of 5 November, when one of the birds accidentally sprung the catch mechanism on the gate, which was subsequently made "goose-proof". The first swan catch was duly held on the morning of 13 December; the gate closed on a total of 933 wildfowl, including 74 Bewick's and one Whooper Swan, in what is believed to be the largest single catch of wildfowl in Britain. Four of the Bewick's Swans had been ringed previously, three at Slimbridge and one, named "Eastpark", at Caerlaverock. The second swan catch at Martin Mere, on 24 January, yielded 168 Bewick's Swans (including 46 recaptured birds) and five Whooper Swans, the largest number of migratory swans in one catch in Britain, but very few duck. One swan, named "Mr. Magoo", had been ringed at Slimbridge as a cygnet in December 1980, but had wintered at Martin Mere each year since 1983-84.

Successful swan catches were made both at Caerlaverock (on 29 November and 22 February) and at Slimbridge (on 4 December and 29 January). Some 93 Whoopers and two Bewick's Swans were ringed for the first time at Caerlaverock this winter. Similarly, 41 Bewick's Swans were newly ringed at Slimbridge and a further 43 of the birds caught had been ringed in previous years. Two expeditions to the Bewick's Swans' breeding grounds in the Soviet arctic were planned for summer 1991, one to the Pechora delta region and the other to Vaygach Island. The 201 Bewick's Swans caught at Martin Mere therefore were marked with the yellow picric dye on the back of the head and neck, and 73 of the swans caught at Slimbridge were dyed on the tail and wing-tips, with a view to determining the distribution of known birds in the breeding range. One of the swans dyed at Martin Mere was seen on the Nene Washes, Cambridgeshire, on 1 March. Two dyed birds were seen at Rannamoisa, near Tallinn, Estonia as early as 9 March and a third (a juvenile) was seen in a flock of 100 Bewick's Swans in a stubble field at Vaemla on Hiiumaa Island, Estonia on 24 March (F. Jussi pers. comm.).

An impromptu swan catch was made at Welney on 8 March. Eleven Whooper Swans

were caught, including one bird originally ringed in Iceland. A single Bewick's Swan was also ringed at Welney during the winter.

### Research projects

The long-term study of the pairing and breeding success of Bewick's Swans wintering at Slimbridge reached its 28th year; individual Bewick's and Whooper Swans wintering at Welney and Caerlaverock were monitored for the 12th winter. The data collected will be used to analyse the relative importance of factors affecting the longevity and lifetime breeding success of individuals of both species. As in previous years, information on the continued survival of ringed birds was greatly enhanced by reports of marked birds identified at wintering sites other than the Trust Centres. Ireland is an important wintering area for Whooper Swans, and some 88 ringed birds were identified by two observers working for the Northern Ireland region of the National Trust (J. Wells and D. Andrews).

An international census of Whooper Swans wintering in Britain, Ireland and Iceland was made in January 1991, involving the National Wildfowl Count network (coordinated at Slimbridge), the Irish National Parks and Wildlife Service (coordinated by O. Merne) and Icelandic ornithologists (coordinated by A. Gardarsson). The previous census, made in January 1986, found 16,742 Whooper Swans in the population, and it will be interesting to see whether there is evidence of a significant change since then. Information concerning the distribution of swans in relation to habitat was also recorded at monthly intervals with a view to assessing factors affecting the birds' selection of feeding sites.

The breeding biology study of Whooper Swans in Iceland also continued through the summer of 1990. A survey of the lowland site at Skagafjordur, northern Iceland, on 2 August found 419 swans in the area, some 100 birds more than in the last three years, mainly due to an increase in the number of non-breeders on Lake Miklavatn. The 32 broods in the area had an average of 3.0 cygnets per family, which appears to be the norm for birds breeding at the site. A survey of 25 families at the Jokuldalsheidi highlands also found a mean brood of 3.0, however, and the highland cygnets were also more advanced than in 1989, which indicated that the population as a whole had a good breeding season. The association between the breeding success of individual pairs and a range

of habitat variables in the swans' territories will be assessed during summer 1991.

A new study of the feeding ecology of Bewick's Swans wintering in the Gloucestershire area commenced in October 1990. The main aim of the project is to analyse the birds' feeding strategies in relation to their energetic requirements and food availability. Feeding activities will be related to dominance rank, to the condition of the birds in winter, and to their subsequent breeding success. Detailed fieldwork also started at Martin Mere for a project aimed at analysing factors affecting food site selection by Bewick's and Whooper Swans in situations where the two species coexist. The

results should indicate whether or not the Whoopers displace the smaller Bewick's Swans either directly through social interactions or indirectly by monopolising the best feeding areas.

In summer 1991, a Soviet expedition led by Dr Yu. Shchadilov of the USSR Research Institute for Nature Conservation will study Bewick's Swans on their breeding grounds in the Pechora delta region of the Soviet arctic. The Institute has invited two of the Trust's scientists to join the expedition, which we hope will lead to future collaborative work on the breeding ecology of the species.

*We are grateful to the many people who reported their sightings of Bewick's and Whooper Swans during the winter, including D. Andrews, J. Arbon, J. Beekman, S. Bryan, B. Drolet, O. Einarsson, D. Forshaw, W. Haines, T. Haitjema, R. and C. Hesketh, M. Hyslop, T. Jones, J. Kemp, C. Liggett, O. Merne, M. Ogilvie, D. Scott, Ph. Scott, P. Shimmings, M. Smart, A. Stewart, C. Tomlinson, J. Turner, and J. Wells. Collaborative studies in Iceland would not be possible without the kind cooperation of A. Petersen of the Icelandic Museum of Natural History and A. Gardarsson of the University of Iceland.*

**Eileen C. Rees and Jonathan M. Bowler**, The Wildfowl & Wetlands Trust, Slimbridge, Gloucester, GL2 7BT.  
**Linda Butler**, The Wildfowl & Wetlands Trust, Hundred Foot Bank, Welney, Nr. Wisbech, Cambridgeshire, PE14 7TN.