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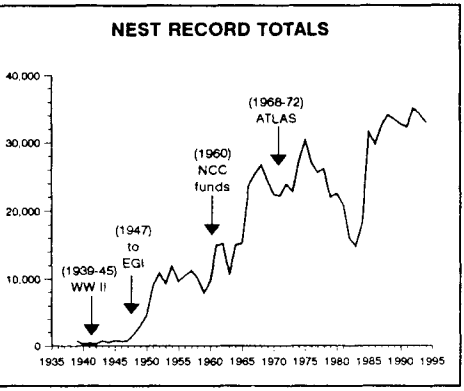
British Trust for Ornithology

# Nest Record News

*A newsletter for supporters of the NEST RECORD SCHEME, forming part of the BTO's Integrated Population Monitoring programme carried out under contract to the Joint Nature Conservation Committee on behalf of English Nature, Scottish Natural Heritage and the Countryside Council for Wales, and under a contract from the Department of the Environment for Northern Ireland.*

## ANOTHER EXCELLENT TOTAL IN 1994!

By the middle of March this year, the BTO had received an outstanding 32,842 Nest Record Cards for the 1994 breeding season covering 187 species. **A big thank you to all Nest Recorders for working so hard in 1994, especially in the key months of May and June when in many regions cool, damp and windy weather predominated.**




## 1994 BREEDING SEASON

### Introduction

The recently published, award winning and highly acclaimed BTO/IWC/SOC *New Atlas*: 1988-91 (Gibbons *et al* 1993), to which many Nest Recorders contributed observations, revealed many eye-catching changes in the distribution and status of Britain and Ireland's birds. The *New Atlas* illustrates some striking fluctuations in fortunes of various bird groups: how many raptor populations have bounced back following pesticide induced losses, how there has been a worrying decline in the breeding numbers of many both common and scarce farmland birds, while certain of our summer visitor populations have dwindled following a deterioration in the quality of habitats on their wintering grounds in Africa. Against this broad scale and complex picture of 'ups and downs' the BTO's Nest Record Scheme has played an important interpretative role. It can show when changes in range may be due to changes in nesting success. The Scheme's twin functions of assessing the impact of man-made and natural changes on the breeding performance of our birds increases in its importance, degree of accuracy and scale of application year by year. It is very reassuring to know that your annual contributions to the historical bank of BTO Nest Record Cards - now approaching the one million mark - are gathering in value by the year. Also, that these nest record observations, often collected under arduous conditions as in 1994, are helping guide conservation measures and safeguard the future of our bird-life. Most of us are content to leave any assessment of the finer changes in nesting performance of our birds to BTO staff at Thetford HQ (though individuals can play an important additional role). Invariably, however, observers can often get 'a feel' for

how a species has fared each year. Many comments overleaf are based upon an early examination of the Nest Records for 1994, plus individual overall observations.

### A below average year for many

The majority of Nest Recorders described a 'below par' season for many early breeding, single-brooded species and, thereafter, a stuttering 'go-stop-go' year in terms of nesting attempts by most multi-brooded birds. Overall views expressed countrywide ranged from: "poor spring weather led to smaller bunting, Linnet, even corvid broods" (Devon); "nestbox-users a fortnight late and most Tits slow to fledge" (West Sussex); "torrential downpours in late May took a heavy toll" (Dorset); "worst year ever for my nestbox study" (Northants); "a wicked time for early waders and small birds" (Easter Ross); "waterbirds raised many late broods" (Dyfed); "the warm dry summer helped hill passerines and some waders" (Cumbria) and "fairly reasonable year for raptors after early failures in late spring snow" (Highland).

### Doves and thrushes off to a flying start

After the generally acclaimed 'above average' nesting season of 1992 and mixed season of 1993, many BTO Nest Recorders set forth with fresh hopes and higher ambitions in 1994. Such thoughts were fostered by an exceptionally mild spell of winter weather early in the New Year, notably in southern parts, and this generated a thin scattering of early nesting attempts in the warmer urban micro-climate - now an annual feature. In January and early February clutches were started by Collared Dove, Blackbird, Song *Thrush and Robin, at sites from Devon and* Dorset north to Birmingham and Cumbria. A mild south-westerly airflow in early February saw further such attempts, courtship display or nest renovation and construction by Peregrine, Raven, Rook, certain grebes and ducks. Virtually all such activity was halted by a spell of cold air of Siberian origin in mid February.

Mild conditions had returned by March, courtesy of a regular south-westerly airstream off the Atlantic, and by mid month Stone Curlew, Little Ringed Plover, Osprey and Wheatear had been reported back on traditional nesting grounds. As the above average temperatures persisted widely, most of Britain enjoyed another mild March, and this saw a spate of nesting by various thrushes, Wren, Robin, Woodlark, Cormorant and others.

Buoyant birdwatchers came down to earth with a bump in late March and April as the promise of a really early and highly productive spring nesting season tended to evaporate for certain vulnerable species. An early Easter period saw damaging severe gales sweeping across Britain, with tree nesting raptors, Grey Heron, Rook and other corvids suffering structural damage to nests and their contents. By late April a destructive and prolonged spell of increasingly cold air, sometimes of Arctic origin and with snow in northern parts, seriously delayed the arrival of many spring migrants and checked the nesting progress of numerous residents.

### Further resident bird range expansions

Overall, though, upon reflection the 1993/94 winter was warmer, wetter, stormier than average and so added to the recent series of mild ones (five from the last six - 1990/91 being the exception). The lack of any protracted severely cold spells of weather, Scotland excluded, will have enhanced the wintering survival prospects of certain tender resident birds. In 1994 BTO Nest Recorders on consistently 'nest searched' patches variously reported higher populations of common sensitive species, notably Wren, Treecreeper, Great Tit, Goldcrest and Dunnock. Similarly, less common but equally vulnerable Grey Heron, Barn Owl, Kingfisher, Grey Wagtail and Stonechat showed increases, alongside range expansions by Red Kite, Dartford and Cetti's Warblers. The stormy wet winter also helped further to alleviate problems with degraded riparian habitat, notably in southern and eastern parts of Britain, following the recent four-year term drought period. Improved quality nesting grounds

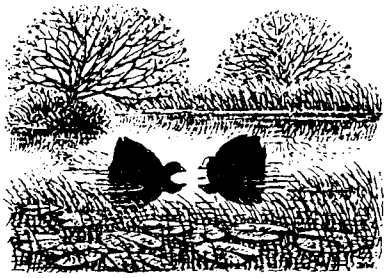
aided wetland nesting grebes, duck, crakes, *Acrocephalus* warblers and waders in places.

**Titmice and Pied Flys hit by rains**

The periodic heavy rains in spring 1994 eventually began to impinge on nesting operations. Cool, often very damp weather, especially in southern Britain, persisted throughout what was far from a merry month of May, spilling over into June. As in 1993, high rainfall amounts in the key pivotal month of May affected the relative success of many birds, from mountain and moor to woodland and farmland - though in varying ways. For many residents and spring migrants alike it became a late egg-laying season; also often below average in terms of nesting success for those single-brooded birds who 'place all their eggs in one basket'.

With few exceptions, nestbox scheme operators across Britain found it to be a moderate to poor season for Blue, Great and Coal Tit and Pied Flycatcher, less so sometimes for Nuthatch and Redstart. Titmice and flycatcher clutches and broods at many sites were somewhat smaller than usual. Nests abandoned during building and egg-laying, a protracted laying period and late fledging dates were all regular features. Predation of nest contents and foraging adult birds were more frequent events than usual in May with Cats, Weasel, Magpie, Great Spotted Woodpecker, even Pine Marten heavily implicated on a local scale. The aspect and altitude of nestbox schemes appeared to play a more important role than in other years, compounded by a variable but often scarce crop of caterpillars. Nestbox checking became an arduous task at times.

The heavy winter and spring rains provided higher water levels and conditions tended to favour certain waterfowl including Mute Swan, Little and Great Crested Grebes, certain dabbling duck, Moorhen and Coot, a few waders (including Redshank and Snipe), and some soil invertebrate feeders such as Robin and Song Thrush. Generally less successful were early nesting plovers, the Scottish divers (except raft-nesting Black-throated), and a broad range of birds that feed extensively on aerial insects or invertebrates taken from branches or the woodland canopy, including many leaf warblers, woodpeckers, and crests. Both Swallow and House Martin continued to cause concern widely, invariably returning late to nest, sometimes in smaller numbers, and enjoying mixed fortunes as late successive broods often helped to bolster a moderate season.



*The wet winter and spring weather provided water levels ideal for nesting Coot. Drawing by Donald Watson.*

**Raptor 'ups and downs'**

Both diurnal raptors and the owls performed with varying degrees of success in 1994. Tawny Owls got off to a flying start in parts of Scotland and northern England as vole populations peaked in some localities; elsewhere the damp cool spring and food shortage impaired nesting performance and single owlets fledging was the rule. The adverse weather and food conditions delayed egg-laying by Buzzard, Kestrel, Little Owl, Short-eared Owl and others, with an increased element of some populations non-breeding, and brood sizes often lower than normal. Sadly, despite substantial advances in education and conservation measures over recent 'enlightened' decades, all too frequent reports of deliberate persecution of Hen Harrier, Peregrine, Raven and other nests came via Nest Recorders. Inter-predator rivalry, and losses, was also an interesting feature (as detected by remains found in or close to the nest) - Sparrowhawk taken by Goshawk, Little Owl by Tawny Owl,

and Tawny Owl by Wild Cat. On the positive side, warmer and drier mid summer conditions enhanced the success of many later nesting attempts, and led to a protracted season for Sparrowhawk, Hobby, Montagu's Harrier and others.

### Late season successes a bonus

From mid June the nesting operations of many birds were influenced by a dramatic switch to hot, humid and drier weather, conditions that tended to dominate in some regions until early August. The weather tended to provide more productive foraging conditions for many multi-brooded birds including certain thrushes (notably Song Thrush), some finches (including regularly double-brooded Chaffinch), *Acrocephalus* warblers (especially late repeating Reed Warbler), Barn Owl, Woodlark, Spotted Flycatcher, Grey and Pied Wagtail, as these and others reared many bumper late broods. The finer weather was too late, or too short term, to 'balance the books', for others. Some buntings (including Yellowhammer and Corn Bunting), finches (notably Linnet) and Tree Sparrow were often unusually late starting clutches and the short season was not too productive in some regions. A second successive poor damp nesting season saw a small drop in the remnant population of Cirl Buntings in southwest England which is being 'managed' with the help of favourably minded farmers. Management of habitat helped to bolster Corncrake numbers on certain outlying Scottish islands, but this flagship farmland bird remained very scarce and nesting failed to be confirmed in Northern Ireland for the first time.

### Biological clocks run haywire

The summer of 1994 saw some unlikely 'pairings' as carded by Nest Recorders. At Stithians Reservoir, Cornwall, a Pied-billed Grebe of Nearctic origin successfully mated with a local Little Grebe (despite belonging to a different genus) and three hybrid young were eventually reared. Meanwhile, on the Farne Islands, Northumberland, 'Elsie' the now famous Lesser Crested Tern again paired with a local Sandwich Tern, but this year the single youngster died at four days of age.

*The Greenfinch was one of several species that reared late broods in the favourable autumn weather conditions during 1994. Drawing by Hilary Burn.*

The return to a wet westerly airflow in August, followed by a cool September, truncated the season of some multi-brooded species. Nest Recorders continued to chart a thin scattering of nesting attempts through Indian summer conditions in early October by, among others, late broods of hirundines, doves, Greenfinch and Dunnock. The 1994 nesting season retained one last final flourish. Record-breaking warmth in November sent biological clocks haywire. Blackbird, Song Thrush, Woodpigeon, Feral Pigeon, Stock Dove, even late 'second' brood Barn Owl were noted egg-laying or with advanced young in unprecedented conditions. It was a fitting climax to a 'topsey-turvey' year that added fuel to speculation about global warming.

## 1994 CARD INTAKE - SAMPLE HIGHLIGHTS -

A great strength of the Nest Record Scheme comes from the wide national coverage that is achieved each year. In almost all parts of the country there are birdwatchers who fill in just a handful of detailed cards for nests found on their local 'patch'. Then there are others who are able to spend more time, sometimes concentrating on a particular species or travelling widely to find nests. Such 'specialists' provide very useful detailed information that can be used to calibrate the widespread national coverage achieved by other recorders. Both types of recorder are equally vital in maintaining the accuracy of the Scheme's monitoring and fact-finding roles.

This year we received cards from 433 individuals and 92 groups. Those birdwatchers operating through the 26 local bird clubs and schools, 31 ringing groups and bird observatories, or the 35 National, County or RSPB Nature Reserves and Forestry Commission woodlands all had the advantages of being able to exchange ideas, help with co-operative projects, and also help reduce the BTO's time with administration, thereby increasing time available for data analysis.

The list that follows shows the total Nest Record Cards each recorder or group sent to the BTO (where it exceeded 100), preceded by the number that were for nests visited more than once (eg 82/109 means that 82 of the 109 cards sent were multi-visit nest histories). Single-visit cards have limited usefulness, primarily helping to illustrate habitats and nest sites: relatively few reveal other information about breeding biology, except when a nest is found at egg-laying, hatching or fledging. Multi-visit cards are much more valuable, because even just two visits allow the calculation of the survival rate of a nest. They also show whether egg-laying has finished and allow a more accurate calculation to be made of the first egg-laying date - all important facts.

**T M Allinson** (Co Durham) 207/214 inc. 10 Snipe, 12 Garden Warbler; **D S C Arthur** (Tayside) 121/129 inc. 52 Swallow, 17 Ring Ouzel; **K S Arthur** (Sussex) 101/101 inc. 51 Blue Tit, 36 Great Tit; **W Attridge & D M Gyngell** (Surrey) 101/105 inc. 6 Chiffchaff, 28 Jackdaw; **Barrow Gurney Ringing Group** (per **T W G Lewis**, Avon) 102/107 inc. 52 Blue Tit, 26 Great Tit; **R E Batty** (Norfolk) 77/125 inc. 4 Swift, 17 Blackbird; **Birklands Ringing Group** (Notts) 125/129 inc. 56 Swallow, 13 Chaffinch; **J E A Brook, R C Cooke & K C Chedgzoy** (Warks) 1,188/1,336 inc. 274 Woodpigeon, 110 Blackbird, 26 Jackdaw; **D J Bowker** (Lancs) 93/101 inc. 64 Swallow, 21 Dipper; **Bristol Naturalists' Society** (per **H R Hammacott**, Avon) 83/282 inc. 20 Willow Warbler, 67 Yellowhammer; **D Buckingham** (Somerset) 159/179 inc. 22 Linnet, 29 Yellowhammer; **J Callion** (Cumbria) 80/104 inc. 65 Stonechat, 20 Sedge Warbler; **G J Conway** (Devon) 112/112 inc. 18 Black-headed Gull, 30 Herring Gull; **J E S Cooper & R F Sanderson** (Sussex) 173/183 inc. 30 Canada Goose, 8 Redstart; **R E Danson** (Lancs) 536/539 inc. 11 Little Owl, 28 Starling, 85 Tree Sparrow; **S J Denny** (Suffolk) 125/125 inc. 44 Canada Goose, 58 Common Tern; **R A Denyer** (Surrey) 75/101 inc. 12 Stock Dove, 7 Willow Warbler; **J Driver** (Gwynedd) 333/335 inc. 25 Fulmar, 14 Buzzard, 104 Carrion Crow; **E Flatters & S Hales** (Dorset) 227/291 inc. 11 Fulmar, 86 Herring Gull; **Forest Enterprise North Scotland Region** (per **M Canham**) 453/460 inc. 5 Black-throated Diver, 27 Tawny Owl, 169 Great Tit; **Forest Enterprise South Scotland Region** (per **G Shaw**) 255/302 inc. 70 Barn Owl, 46 Tawny Owl; **P French** (Highland) 1,188/1,188 inc. 57 Oystercatcher, 229 Lapwing, 714 Black-headed Gull; **D J Garner** (Cambs) 137/147 inc. 11 Kestrel, 16 Reed Warbler; **Grampian Ringing Group** (per **P Doyle**) 382/391 inc. 84 Oystercatcher, 14 Meadow Pipit, 72 Starling; **D Hazard** (S Yorks) 181/181 inc. 7 Blackcap, 35 Linnet; **J A High & P J Burston** (Devon) 219/234 inc. 12 Collared Dove, 12 Nuthatch; **I, P & D Hildred** (Lincs) 103/105 inc. 12 Wren, 9 House Sparrow; **P & D Hill** (Gtr Manchester) 80/113 inc. 7 Little Grebe, 9 Great Crested Grebe; **D Holman** (Northants) 157/183 inc. 23 Sparrowhawk, 9 Jackdaw; **P R Holness** (Suffolk) 296/348 inc. 8 Egyptian Goose, 178 Swallow; **J C & C A Holt** (Sussex) 259/259 inc. 75 Blackbird, 48 Song Thrush; **Hughenden Ringing Group** (Bucks) 300/313 inc. 34 Pied Wagtail, 13 Willow Warbler; **M S Jones** (Shrops) 113/158 inc. 4 Razorbill, 18 Reed Warbler; **R Lambert** (Lancs) 139/143 inc. 101 Lesser Black-backed Gull, 6 Barn Owl; **R J Lanaway** (120/122) inc. 26 Swallow, 19 Blue Tit; **J V Lloyd** (Dyfed) 154/157 inc. 6 Redstart, 38 Pied Flycatcher; **R J Louch & D Tompson** (Oxon) 217/230 inc. 18 Whitethroat, 15 Garden Warbler, 23 Chiffchaff; **D Luckhurst** (Co Durham) 108/119 inc. 55 Lapwing, 36 Swallow; **F Mawby** (Cumbria) 132/143 inc. 27 Lapwing, 18 Great Tit; **M O Meadows** (Essex) 596/601 inc. 43 Moorhen, 95 Magpie, 61 Carrion Crow; **Merseyside Ringing Group** (per **D Norman**) 999/1,299 inc. 118 Grey Heron, 38 Sparrowhawk, 139 Pied Flycatcher; **S F Moores** (Norfolk) 85/152 inc. 51 Grey Heron, 15 Barn

Owl; **J Moulton** (Northants) 156/289 inc. 22 Herring Gull, 102 Swallow; **D Murfitt** (N Yorks) 58/115 inc. 5 Meadow Pipit, 5 Coal Tit; **D A Myers** (Gtr Manchester) 189/189 inc. 18 Moorhen, 32 Oystercatcher; **G W Myers** (Cleveland) 199/211 inc. 39 Stock Dove, 14 Long-tailed Tit; **National Trust Farne Islands** (per **J Walton**, Northum) 1,403/1,404 inc. 101 Eider, 673 Kittiwake, 50 Puffin; **National Trust Long Nanny** (per **I Fisher**, Northum) 349/350 inc. 22 Ringed Plover, 68 Little Tern, 260 Arctic Tern; **North Ronaldsay Bird Observatory** (per **S Stansfield**, Orkney) 229/368 inc. 56 Black Guillemot, 24 Rock Dove; **Northumbria Ringing Group** (per **M Holmes & R Walton**) 400/412 inc. 37 Dipper, 17 Spotted Flycatcher, 84 Pied Flycatcher; **North West Norfolk Ringing Group** (per **J L Middleton**) 257/308 inc. 123 Fulmar, 124 Ringed Plover; **A B Old** (Cumbria) 139/140 inc. 59 Pied Flycatcher, 59 Blue Tit; **Orkney Ringing Group** (per **E R Meek**) 137/167 inc. 86 Red-throated Diver, 26 Hen Harrier; **C Osthoff** (Co Wicklow) 123/132 inc. 7 Spotted Flycatcher, 27 Rook; **P Page** (Devon) 198/199 inc. 74 Pied Flycatcher, 11 Nuthatch; **Peak District Raptor Monitoring Group** (W Yorks) 111/121 inc. 82 Sparrowhawk, 4 Long-eared Owl; **G Pearce** (Wilts) 168/168 inc. 23 Barn Owl, 10 Spotted Flycatcher; **R H Peart** (Dorset) 132/134 inc. 7 Grey Wagtail, 20 Spotted Flycatcher; **A Pout** (Western Isles) 172/172 inc. 44 Common Gull, 52 Arctic Tern; **I Proctor** (Glos) 323/324 inc. 80 Pied Flycatcher, 155 Blue Tit; **A D K Ramsay, D Butterfield, R Plant & J Smith** (Highland) 460/489 inc. 46 Manx Shearwater, 6 Red-breasted Merganser; **J Richardson, R W Grainger, M Lonsdale, N & P Fenwick** (Co Durham) 195/692 inc. 102 Song Thrush, 23 Greenfinch, 9 Bullfinch; **P H Ridout** (Hants) 149/149 inc. 17 Blackbird, 8 Corn Bunting; **H Robb** (Central) 169/171 inc. 28 Redstart, 52 Pied Flycatcher; **J A L Roberts** (Clwyd) 185/197 inc. 45 Pied Flycatcher, 8 Raven; **P J Robinson** (Isles of Scilly) 160/440 inc. 130 Shag, 141 Greater Black-backed Gull; **P Roe & T Kuechel** (W Yorks) 189/213 inc. 57 Grey Heron, 7 Kestrel; **RSPB Ynys-hir Reserve** (Powys) 183/193 inc. 78 Pied Flycatcher, 53 Blue Tit; **M D Russell** (Beds) 113/135 inc. 29 Moorhen, 18 Rook; **N Skinner** (Suffolk) 89/109 inc. 14 Kittiwake, 20 Little Tern; **F M Slater** (Powys) 125/127 inc. 78 Pied Flycatcher, 26 Blue Tit; **Sorby Breck Ringing Group** (per **G Mawson, O Biddulph & G Briggs**, S Yorks) 320/356 inc. 164 Swallow, 52 Great Tit; **K Spindloe** (Cleveland) 192/208 inc. 52 Swallow, 19 Tree Sparrow; **B Standley** (Cheshire) 88/129 inc. 7 Whitethroat, 6 Corn Bunting; **R J Stevens** (Notts) 712/943 inc. 22 Little Grebe, 211 Coot, 170 House Martin; **Tain Royal Academy Bird Club** (per **R L & R Swann**, Highland) 285/293 inc. 65 Eider, 36 Buzzard; **W Taylor** (Grampian) 80/100 inc. 11 Crested Tit, 7 Coal Tit; **Test Ringing Group** (per **M G Holland**, Hants) 92/158 inc. 9 Jackdaw, 4 Crossbill; **M Thomas** (Glam) 170/170 inc. 26 Wren, 18 Magpie; **D M Tuck** (Surrey) 115/116 inc. 14 Coot, 4 Tree Pipit; **S J Tyler & F Burge** (Gwent) 98/115 inc. 21 Grey Wagtail, 51 Dipper; **G A Vaughan** (Devon) 154/154 inc. 58 Blue Tit, 10 Nuthatch; **D Warden** (Avon) 484/529 inc. 11 Little Grebe, 80 Canada Goose, 88 Reed Warbler; **E H Webb** (Suffolk) 134/135 inc. 13 Swallow, 12 House Martin; **N J Westwood** (Cambs) 160/176 inc. 10 Coot, 115 Reed Warbler.

## MILESTONES PASSED IN 1994

In 1994 several exciting milestones were achieved. The 250th Dotterel card came from Hugh Insley, Grampian for a nest of 3 eggs on a *Festuca* tussock. The 300th Green Woodpecker card came from Michael Thomas, Glamorgan for a nest which fledged six young 6m up in a silver birch. It's relative, the Great Spotted Woodpecker reached 1,000 cards with R Swann, Highland sending in a card for a nest 4m up in a pine tree. Two species attained the 1,500 mark - Little Owl and Tree Pipit, with cards sent in respectively by Hersham Ringing Group, Surrey (two young ringed) and John Little for a nest on a Hampshire heath. Species reaching 2,000 cards were Red-throated Diver with Keith Fairclough's card for a nest on an Orkney loch which raised one young despite heavy angling pressure; and Redshank, with Paul Holness's card for a nest of four eggs in Norfolk. Finally, R Plant, Highland sent in the 5,000th Herring Gull card for a coastal cliff nest.

*The Tree Pipit remains a relatively little studied British breeding bird so the BTO was delighted to receive the Scheme's 1,500th nest history in 1994. Drawing by Donald Watson.*

## TOTALS FOR NEST RECORD SCHEME FROM PRE-1993 TO 1994

| SPECIES | Pre-93 | 1993 | 1994 | TOTAL |
|---|---|---|---|---|
| **Red-throated Diver** | **1,809** | **93** | **105** | **2,007** |
| Black-throated Diver | 178 | 3 | 5 | 186 |
| Little Grebe | 1,723 | 77 | 82 | 1,882 |
| Pied-billed Grebe | - | - | 1 | 1 |
| Great Crested Grebe | 2,574 | 178 | 124 | 2,876 |
| Red-necked Grebe | 1 | - | - | 1 |
| Slavonian Grebe | 160 | 17 | 2 | 179 |
| Black-necked Grebe | 12 | 1 | - | 13 |
| Fulmar | 3,755 | 252 | 392 | 4,399 |
| Manx Shearwater | 97 | - | 47 | 144 |
| Storm Petrel | 39 | 1 | - | 40 |
| Leach's Petrel | 2 | 1 | 4 | 7 |
| Gannet | 28 | - | - | 28 |
| Cormorant | 1,311 | 124 | 26 | 1,461 |
| Shag | 4,074 | 387 | 379 | 4,840 |
| Bittern | 19 | - | 1 | 20 |
| Little Bittern | 1 | - | - | 1 |
| Night Heron | - | - | 3 | 3 |
| **Grey Heron** | **3,580** | **385** | **340** | **4,305** |
| **Mute Swan** | **4,083** | **371** | **170** | **4,624** |
| Whooper Swan | 5 | 1 | 1 | 7 |
| Greylag Goose | 501 | 27 | 16 | 544 |
| Canada Goose | 1,998 | 194 | 281 | 2,473 |
| Barnacle Goose | 1 | 0 | 1 | 2 |
| Egyptian Goose | 15 | 2 | 9 | 26 |
| Shelduck | 234 | 11 | 13 | 258 |
| Mandarin | 219 | 16 | 18 | 253 |
| Wigeon | 147 | 2 | 8 | 157 |
| Gadwall | 69 | 7 | 9 | 85 |
| Teal | 205 | 4 | 3 | 212 |
| Mallard | 6,937 | 250 | 202 | 7,389 |
| Pintail | 20 | 1 | 2 | 23 |
| Garganey | 9 | - | - | 9 |
| Shoveler | 126 | 3 | 5 | 134 |
| Pochard | 110 | 1 | 4 | 115 |
| Tufted Duck | 978 | 55 | 28 | 1,061 |
| Scaup | 1 | - | - | 1 |
| Eider | 2,265 | 171 | 92 | 2,528 |
| Common Scoter | 39 | 1 | - | 40 |
| Goldeneye | 78 | 40 | 8 | 126 |
| Red-breasted Merganser | 229 | 5 | 10 | 244 |
| Goosander | 188 | 14 | 2 | 204 |
| Ruddy Duck | 67 | 5 | 4 | 76 |
| Honey Buzzard | 16 | 2 | 1 | 19 |
| Red Kite | 15 | 3 | 1 | 19 |
| Marsh Harrier | 21 | 2 | 11 | 34 |
| **Hen Harrier** | **1,183** | **60** | **60** | **1,303** |
| Montagu's Harrier | 47 | - | 1 | 48 |
| Goshawk | 262 | 57 | 21 | 340 |
| **Sparrowhawk** | **4,064** | **247** | **150** | **4,461** |
| **Buzzard** | **3,837** | **177** | **169** | **4,183** |
| Golden Eagle | 410 | 16 | 7 | 433 |
| Osprey | 34 | - | 7 | 41 |
| **Kestrel** | **5,360** | **240** | **216** | **5,816** |
| **Merlin** | **1,879** | **187** | **266** | **2,332** |
| Hobby | 453 | 23 | 21 | 497 |
| **Peregrine** | **1,765** | **118** | **84** | **1,967** |

| SPECIES | Pre-93 | 1993 | 1994 | TOTAL |
|---|---|---|---|---|
| Red Grouse | 600 | 15 | 12 | 627 |
| Ptarmigan | 127 | 5 | 2 | 134 |
| Black Grouse | 54 | 3 | 1 | 58 |
| Capercaillie | 71 | 3 | 4 | 78 |
| Red-legged Partridge | 431 | 3 | 7 | 441 |
| Grey Partridge | 773 | 12 | 5 | 790 |
| Quail | 11 | - | 1 | 12 |
| Pheasant | 1,856 | 50 | 28 | 1,934 |
| Golden Pheasant | 1 | 2 | 3 | 6 |
| Lady Amherst's Pheasant | 1 | - | - | 1 |
| Water Rail | 95 | 2 | - | 97 |
| Corncrake | 28 | - | 1 | 29 |
| **Moorhen** | **17,884** | **500** | **476** | **18,860** |
| Coot | 11,246 | 714 | 584 | 12,544 |
| **Oystercatcher** | **10,464** | **890** | **567** | **11,921** |
| Black-winged Stilt | 1 | 1 | - | 2 |
| Avocet | 466 | 39 | 12 | 517 |
| Stone-curlew | 429 | - | - | 429 |
| Little Ringed Plover | 1,421 | 88 | 75 | 1,584 |
| **Ringed Plover** | **6,654** | **391** | **349** | **7,394** |
| Kentish Plover | 19 | - | - | 19 |
| Dotterel | 246 | 3 | 1 | 250 |
| Golden Plover | 754 | 13 | 15 | 782 |
| **Lapwing** | **17,695** | **917** | **827** | **19,439** |
| Temminck's Stint | 1 | - | - | 1 |
| Purple Sandpiper | 3 | - | - | 3 |
| Dunlin | 492 | 6 | 4 | 502 |
| Ruff | 4 | - | - | 4 |
| Snipe | 1,358 | 20 | 41 | 1,419 |
| Woodcock | 555 | 9 | 9 | 573 |
| Black-tailed Godwit | 13 | - | - | 13 |
| Whimbrel | 60 | - | - | 60 |
| **Curlew** | **2,412** | **66** | **56** | **2,534** |
| Redshank | 1,943 | 39 | 68 | 2,050 |
| Greenshank | 150 | 4 | 2 | 156 |
| Wood Sandpiper | 2 | - | - | 2 |
| Common Sandpiper | 1,224 | 48 | 23 | 1,295 |
| Red-necked Phalarope | 52 | 19 | 26 | 97 |
| Arctic Skua | 268 | 23 | 22 | 313 |
| Great Skua | 301 | 61 | 9 | 371 |
| Mediterranean Gull | 3 | - | - | 3 |
| Little Gull | 3 | - | - | 3 |
| Black-headed Gull | 6,745 | 319 | 925 | 7,989 |
| Common Gull | 3,014 | 206 | 281 | 3,501 |
| Lesser Black-backed Gull | 1,018 | 54 | 117 | 1,189 |
| Herring Gull | 4,404 | 315 | 353 | 5,072 |
| Great Black-backed Gull | 1,534 | 149 | 166 | 1,849 |
| Kittiwake | 4,771 | 1,276 | 897 | 6,944 |
| Lesser Crested Tern | 3 | - | 1 | 4 |
| Sandwich Tern | 1,440 | 239 | 8 | 1,687 |
| Roseate Tern | 550 | 34 | 50 | 634 |
| Common Tern | 3,914 | 317 | 172 | 4,403 |
| Arctic Tern | 3,671 | 445 | 563 | 4,679 |
| Little Tern | 3,867 | 302 | 297 | 4,466 |
| Guillemot | 1,088 | 4 | - | 1,092 |
| Razorbill | 708 | 7 | 20 | 735 |
| Black Guillemot | 1,045 | 26 | 90 | 1,161 |
| Puffin | 204 | 4 | 53 | 261 |
| Rock Dove | 266 | 14 | 33 | 313 |
| Feral Pigeon | 1,373 | 142 | 40 | 1,555 |

| SPECIES | Pre-93 | 1993 | 1994 | TOTAL |
|---|---|---|---|---|
| **Stock Dove** | **5,311** | **255** | **273** | **5,839** |
| Woodpigeon | 19,903 | 754 | 750 | 21,407 |
| **Collared Dove** | **3,070** | **220** | **190** | **3,480** |
| Turtle Dove | 1,824 | 9 | 8 | 1,841 |
| Ring-necked Parakeet | 5 | 1 | 1 | 7 |
| Cuckoo | 1,898 | 27 | 22 | 1,947 |
| **Barn Owl** | **2,354** | **315** | **328** | **2,997** |
| Snowy Owl | 2 | - | - | 2 |
| Little Owl | 1,424 | 52 | 38 | 1,514 |
| **Tawny Owl** | **6,187** | **397** | **278** | **6,862** |
| Long-eared Owl | 567 | 36 | 18 | 621 |
| Short-eared Owl | 308 | 17 | 5 | 330 |
| **Nightjar** | **1,136** | **58** | **43** | **1,237** |
| Swift | 927 | 66 | 71 | 1,064 |
| Kingfisher | 521 | 25 | 19 | 565 |
| Hoopoe | 1 | - | - | 1 |
| Wryneck | 23 | - | - | 23 |
| Green Woodpecker | 286 | 7 | 7 | 300 |
| Great Spotted Woodpecker | 928 | 29 | 51 | 1,008 |
| Lesser Spotted Woodpecker | 155 | 2 | 2 | 159 |
| Woodlark | 617 | 96 | 81 | 794 |
| **Skylark** | **6,311** | **85** | **93** | **6,489** |
| Sand Martin | 973 | 27 | 37 | 1,037 |
| **Swallow** | **39,961** | **1,465** | **1,844** | **43,270** |
| House Martin | 6,210 | 581 | 331 | 7,122 |
| Tree Pipit | 1,448 | 41 | 22 | 1,511 |
| **Meadow Pipit** | **8,091** | **162** | **163** | **8,416** |
| Rock Pipit | 635 | 19 | 20 | 674 |
| Yellow Wagtail | 898 | 18 | 11 | 927 |
| **Grey Wagtail** | **4,553** | **202** | **153** | **4,908** |
| **Pied Wagtail** | **7,519** | **316** | **291** | **8,126** |
| **Dipper** | **7,675** | **343** | **263** | **8,281** |
| **Wren** | **12,494** | **386** | **342** | **13,222** |
| **Dunnock** | **27,461** | **367** | **295** | **28,123** |
| **Robin** | **17,079** | **386** | **417** | **17,882** |
| Nightingale | 414 | 1 | 2 | 417 |
| Bluethroat | 1 | - | - | 1 |
| Black Redstart | 128 | 1 | 8 | 137 |
| **Redstart** | **4,967** | **172** | **168** | **5,307** |
| **Whinchat** | **1,779** | **35** | **20** | **1,834** |
| **Stonechat** | **2,213** | **134** | **93** | **2,440** |
| **Wheatear** | **2,940** | **92** | **98** | **3,130** |
| Ring Ouzel | 1,319 | 38 | 37 | 1,394 |
| Blackbird | 115,847 | 1,745 | 1,518 | 119,110 |
| Fieldfare | 6 | - | 1 | 7 |
| **Song Thrush** | **66,427** | **752** | **736** | **67,915** |
| Redwing | 108 | 2 | 1 | 111 |
| **Mistle Thrush** | **6,732** | **160** | **118** | **7,010** |
| Cetti's Warbler | 21 | 2 | - | 23 |
| Grasshopper Warbler | 326 | 6 | 20 | 352 |
| Savi's Warbler | 2 | - | - | 2 |
| **Sedge Warbler** | **3,986** | **84** | **79** | **4,149** |
| Marsh Warbler | 160 | 6 | - | 166 |
| **Reed Warbler** | **9,367** | **253** | **320** | **9,940** |
| Dartford Warbler | 366 | 19 | 30 | 415 |
| Lesser Whitethroat | 752 | 21 | 8 | 781 |
| **Whitethroat** | **5,118** | **64** | **113** | **5,295** |
| **Garden Warbler** | **1,526** | **60** | **53** | **1,639** |
| **Blackcap** | **2,667** | **67** | **67** | **2,801** |
| **Wood Warbler** | **1,983** | **74** | **70** | **2,127** |

| SPECIES | Pre-93 | 1993 | 1994 | TOTAL |
|---|---|---|---|---|
| **Chiffchaff** | **2,111** | **52** | **74** | **2,237** |
| **Willow Warbler** | **10,945** | **152** | **64** | **11,161** |
| Goldcrest | 702 | 17 | 10 | 729 |
| Firecrest | 9 | - | - | 9 |
| **Spotted Flycatcher** | **9,209** | **224** | **241** | **9,674** |
| Pied Flycatcher | 25,387 | 2,257 | 1,547 | 29,191 |
| Bearded Tit | 54 | 1 | 1 | 56 |
| **Long-tailed Tit** | **3,967** | **198** | **226** | **4,391** |
| Marsh Tit | 1,124 | 33 | 41 | 1,198 |
| Willow Tit | 394 | 5 | 6 | 405 |
| Crested Tit | 245 | 11 | 32 | 288 |
| Coal Tit | 4,240 | 136 | 126 | 4,502 |
| Blue Tit | 58,223 | 3,799 | 3,659 | 65,681 |
| Great Tit | 35,656 | 2,815 | 2,403 | 40,874 |
| **Nuthatch** | **2,359** | **193** | **118** | **2,670** |
| Treecreeper | 1,995 | 60 | 42 | 2,097 |
| Short-toed Treecreeper | 1 | - | - | 1 |
| Golden Oriole | 33 | 8 | - | 41 |
| Red-backed Shrike | 260 | - | - | 260 |
| Jay | 1,311 | 33 | 24 | 1,368 |
| **Magpie** | **5,802** | **323** | **301** | **6,426** |
| Chough | 534 | 31 | 19 | 584 |
| **Jackdaw** | **4,982** | **242** | **285** | **5,509** |
| **Rook** | **8,187** | **862** | **163** | **9,212** |
| **Carrion Crow** | **5,464** | **309** | **312** | **6,085** |
| Hooded Crow | 1,025 | 10 | 15 | 1,050 |
| **Raven** | **2,471** | **124** | **94** | **2,689** |
| **Starling** | **12,410** | **470** | **430** | **13,310** |
| House Sparrow | 10,639 | 299 | 143 | 11,081 |
| Tree Sparrow | 13,821 | 314 | 374 | 14,509 |
| **Chaffinch** | **18,356** | **366** | **376** | **19,098** |
| Brambling | 2 | - | - | 2 |
| Serin | 1 | - | - | 1 |
| **Greenfinch** | **12,591** | **160** | **162** | **12,913** |
| **Goldfinch** | **2,697** | **83** | **58** | **2,838** |
| Siskin | 62 | 1 | 7 | 70 |
| **Linnet** | **23,932** | **368** | **395** | **24,695** |
| Twite | 829 | 4 | 5 | 838 |
| Redpoll | 1,177 | 12 | 9 | 1,198 |
| Common Crossbill | 136 | 7 | 4 | 147 |
| Parrot Crossbill | 4 | - | - | 4 |
| Scarlet Rosefinch | 1 | - | - | 1 |
| **Bullfinch** | **4,940** | **59** | **52** | **5,051** |
| Hawfinch | 152 | 5 | 4 | 161 |
| Snow Bunting | 59 | - | - | 59 |
| **Yellowhammer** | **6,070** | **111** | **115** | **6,296** |
| Cirl Bunting | 190 | 62 | - | 252 |
| **Reed Bunting** | **7,221** | **52** | **99** | **7,372** |
| **Corn Bunting** | **598** | **15** | **75** | **688** |
| | **Pre-93** | **1993** | **1994** | **GRAND TOTAL** |
| | **897,489** | **34,108** | **32,842** | **964,449** |

NB A few records for some wildfowl species may relate to feral birds (eg Whooper Swan, Greylag Goose and Mallard).

Species highlighted in bold are those used within the BTO's Integrated Population Monitoring programme.

The totals for pre-1993 and 1993 have changed since those printed in *Nest Record News* No. 10 due to the addition of cards received at the BTO after March 1994.

## MORE RECORDS PLEASE

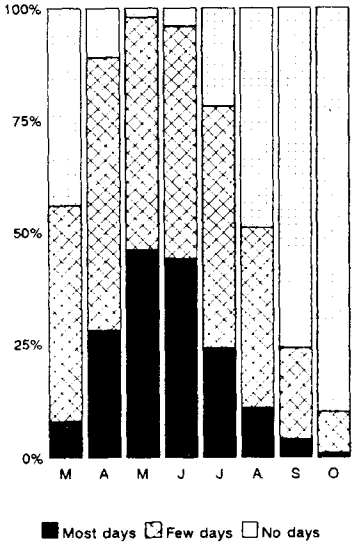
The number of Nest Records for a number of monitoring species have fallen to critically low levels and may severely hinder the BTO's mission to monitor the 'health' of their populations.

Please can Nest Recorders make extra efforts to record the nests of the following species:

**CURLEW**
**NIGHTJAR**
**SKYLARK**
**WHEATEAR**
**SEDGE WARBLER**
**WHITETHROAT**
**BLACKCAP**
**WOOD WARBLER**
**CHIFFCHAFF**
**RAVEN**
**BULLFINCH**
**YELLOWHAMMER**
**REED BUNTING**
**CORN BUNTING**

## SEEING THE FULL SEASON THROUGH

Congratulations are extended to all those Nest Recorders who in 1994 charted those early, late, as well as mid season nests and so helped to maintain the improved coverage of our birds that has been depicted in recent issues of *Nest Record News*. The BTO makes no apology for repeating the now annual plea to please 'see the full season through' on your local plot. Only in this way can we continue to quantify with confidence the nesting performance of Britain's birds and hence implement the monitoring role. It was equally encouraging in 1994 to see extra recorders taking on the job of 'specialist' by concentrating on certain species. Nest histories for individual pairs that record the full nesting output, including repeats and all later broods are especially prized. If you would be prepared to act as a 'specialist' then please address any of those species in the monitoring list in the first instance.




The diagram above depicts monthly 'recording' effort in 1994 based upon the summary sheets completed by 371 observers and groups. It was especially pleasing to see more than one-half of all observers searching, note-taking and completing cards from March to August inclusive, with some one-quarter active on MOST days in April and July. The relative warmth of March will have helped many observers to assess those early attempts noted for grebes, certain waterfowl, corvids, thrushes and others. As the vegetation thickens, the tree canopy closes, and the song output associated with late broods often dwindles, it is tempting to reduce one's nest searching. Hats off therefore to the large number of observers who persevered in charting the relative successes by the likes of seabirds, various duck, owls, hirundines, chats, warblers, finches, plus the inevitable thrushes, doves and Barn Owl from July through to October and the astonishingly mild weather of November.

## 1993 ANNUAL BREEDING REPORT

1993 began warm and dry but deteriorated into a cool wet spring and early summer. Overall, this was reflected by generally early laying dates for resident passerines but many species produced relatively small clutches and experienced poor nesting success.

Details are provided in **the sixth annual monitoring report** of the Nest Record Scheme which was published in *BTO News* 196 and covered 49 species and the years 1962-1993. We were able to analyse a superb total of 219,315 Nest Record Cards - what a dataset!

The warm March of 1993 prompted much early nesting activity and 13 species showed significantly early average **laying dates**, especially among the resident insectivores such as Wren, Robin, Song Thrush and Long-tailed Tit. Analysis of long-term trends in each country showed that progressively earlier laying is more frequent among English populations than those in Scotland and Wales. This seems to suggest that any effect of global warming (if it exists) is being manifested in the south and east of the UK.

Although **clutch sizes** for many species have been increasing progressively over the past 32 years, improvements now seem to be tailing off. In fact, 15 species laid smaller clutches on average than expected in 1993, including Wren, Wheatear, Willow Warbler, Raven and Starling.

For the first time the monitoring report included analyses of **brood sizes** after hatching. We were amazed to find that for 23 species brood size has progressively increased over the past 32 years, particularly among raptors but also among resident and migrant insectivores. Only four species showed significantly decreasing brood sizes: Oystercatcher, Lapwing, Chiffchaff and Raven.

Similarly, many species are showing progressive improvements in **nesting success**, probably due to recovery of these populations from the effects of organochlorine pesticides in the 1960s. However, because of the poor spring and early summer weather in 1993, nesting success was generally rather poor. Seventeen species suffered higher than expected nest losses during incubation, 11 species during the nestling phase and 14 species over the whole nest cycle from egg-laying to fledging.

**Alerts** were issued to the Joint Nature Conservation Committee, which part-funds the Nest Record Scheme, about continuing declines in the nesting success of Raven, Linnet and Reed Bunting. If conservation action is to be undertaken to try to halt the population declines of these species, then the Nest Record Scheme has identified the stage of the life-cycle of these species where further research is needed.

*The 1993 Annual Breeding Report alerts the JNCC to the declining nesting success of Raven. Drawing by Alan Harris.*

## THE BREEDING ECOLOGY OF TWITE

The Twite is the only passerine other than the endemic Scottish Crossbill to breed or winter in Britain in internationally important numbers and is a *Red Data* species. As part of a study of distribution, numbers and habitat usage of Twite in the South Pennines by English Nature, an analysis of the BTO's 813 Nest Record Cards from 1944-1991 was undertaken for inclusion in a forthcoming paper in *Bird Study* by Brown, Crick and Stillman.

The Nest Record Cards were divided into two regions (South Pennines and Scotland) and three habitats (grass moors and pasture; heather moors and heaths; and unspecified moor comprising moorland for which heather or grass was not specified).

Overall daily nest failure rates were not significantly different between the two parts of the country at any stage of nesting: 30% fail during laying and incubation and 22% fail during the nestling period, providing an overall failure rate of 54%. Over the years there has been a significant increase in losses of nests containing young and a significant decrease in brood size through time.

Comparison of South Pennines Twite nesting in the three major habitat types showed that birds nesting on heather were significantly later than those in the other two habitats. The difference in laying date was due to a much greater proportion of apparently second broods recorded on heather. Nests on heather suffered far fewer losses during the nestling stage than nests on grass. Overall loss rates, measured from egg-laying to fledging, were significantly lower on heather (35%) than on grass (60%) or on unspecified moor (51%).

Overall, the analysis may indicate that, through reduced breeding success, a contraction in the range or size of the South Pennines breeding population is imminent. Given the international importance of the British population, a detailed investigation of habitat selection, and its possible impacts on the breeding performance of Twite is recommended in the paper.

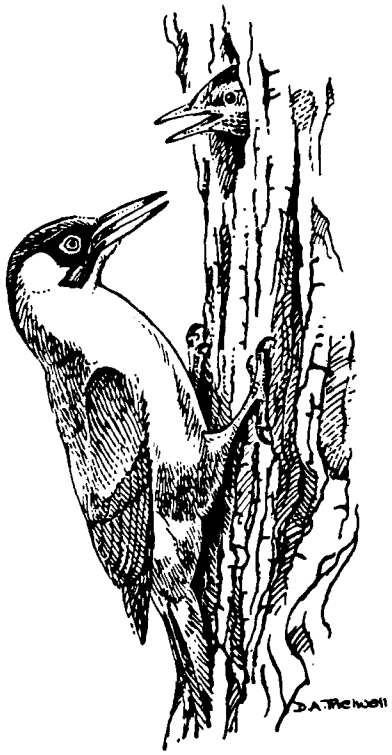
## WOODPECKER STUDIES

The colourful, eye-catching, trio of British woodpeckers have been surprisingly little studied: more so on the Continent. This gap in our knowledge was substantially plugged when David Glue and Tim Boswell analysed the historical bank of over 1,000 BTO Nest Record Cards collected by observers over 50 years, supplemented by studies in the New Forest and Chiltern woodlands. A few of the findings described in the resulting summary paper 'Comparative nesting ecology of the three British woodpeckers' *British Birds* (1994) 87: 253-269 are listed below.

The great majority of all three woodpeckers nest below 150m, rarely above 350m, most often in rural habitats, the Lesser Spotted more frequently in suburban/urban situations. Nest chambers are excavated in a wide variety of deciduous trees, infrequently coniferous: Green mainly in oak, ash, birch and formerly elm; Great Spotted chiefly in birch and oak; Lesser Spotted often in birch, willow, alder and fruit trees. Nest height varies: Green usually 2-6m, Great Spotted 3-7m, Lesser Spotted 2-8m. Green nest most often in the tree trunk, the spotted species more frequently in branches, with stumps used regularly by all three. Lesser Spotted is the woodpecker most heavily reliant upon dead or decaying wood.

Egg-laying periods tend to peak at much the same time for each species (late April-May), and fledging periods overlap considerably, but the Lesser Spotted has a highly synchronised and Green the most protracted of nesting seasons, differences that are explained by diet. Clutch sizes vary widely: Green normally 5-6 eggs (extremes 2-8), Great Spotted 5-6 (3-9) and Lesser Spotted 5 (2-7). Brood sizes also range widely, each species capable of rearing 1-7 young, though most often Green and Great Spotted rear 2-5 and Lesser Spotted 3-6 young. Nest survival rates were high for all three

species, 80-85% of attempts on average yielding at least one free-flying young from clutches started. Most nest losses were attributed to disturbance by man, competition with Starling or Grey Squirrel, and cold damp spring weather. Fresh borings and nest chambers are invariably excavated each year, generally in descending fashion with decay in the tree. Certain trees may take on high conservation value for nest sites, irrespective of age or state of decay. Old borings provide important roost and nesting places for other birds, arboreal mammals, and bats. The Nest Records hint at some interesting mating strategies and parental job sharing responsibilities that may become clearer as the BTO's valuable bank of woodpecker cards increases.



## NEW PROJECTS

The following projects using Nest Record Card data have been initiated since *Nest Record News* No. 10.

a. Neil Anderson - Dipper in Northumberland and Cumbria
b. Andy Brown - Twite in Uists and South Pennines
c. Elizabeth Elford - Barn Owl in Devon
d. Stephen Freeman - Yellowhammer
e. R Jenkins - Water Rail
f. Roy Leigh - Little Owl
g. Debbie Pain - Buzzard in Shropshire in 1994
h. Steve Percival - Barn Owl and Tawny Owl
i. Callum Rankine - Woodlark and Nightjar in Thetford
j. Darrell Stevens - Greenfinch in Home Counties
k. John Strowger - Dotterel in England

## HAVE A GO YOURSELF

Currently there are 51 studies that are using Nest Record Cards, 17 of which are by amateur birdwatchers. Analysing Nest Record Cards is interesting, challenging and rewarding but cannot be undertaken lightly. It takes a good deal of time to pore through the cards, and for species with a reasonable number of records you really require a computer. The rewards are that you really get to know a particular species very well and you can reveal facts that are new to science. If you would like to analyse the cards for a particular species, contact Humphrey Crick and he will be pleased to give advice on planning, analysis and writing up your studies.

*The Green Woodpecker's reliance on ant adults and their pupae as the primary food source permits an extended breeding season in contrast to the spotted woodpeckers which exploit the temporary spring flush of defoliating caterpillars. Drawing by D A Thelwell.*

## FARMLAND SET-ASIDE

The Nest Records Unit recently received a very interesting letter from Fotini Papazoglou, a post-graduate student who is studying Sedge Warblers at Sussex University. She completes Nest Record Cards but finds that the habitat categories, although extensive, do not allow the recording of set-aside on farmland. The problem with set-aside is that it is a policy and not a habitat. There are at least 14 different types of set-aside at the moment and they seem to change every year. The only way that Nest Recorders can determine whether a particular field is one that has been set-aside is to ask the farmer. This would be very useful information to have on the Nest Record Cards. We ask all Nest Recorders, therefore, to record set-aside in the comments section on the habitat side of the Nest Record Card, when they know that a particular field has been set-aside. Thank you very much.

## SAFETY OF NEST OBSERVATIONS

Several experimental studies have shown that detrimental effects on nesting success can occur in seabird colonies when they are visited at very frequent intervals. We would like to draw the attention of Nest Recorders to the need for very careful planning of visits to seabird colonies to avoid undue disturbance. Please follow the guidelines in the *Nest Record Scheme Handbook* (page 32) and *Ringers' Manual* and seek advice of experienced recorders to ensure that visits to colonies are successful for both birds and recorders.

## COMMON QUERIES SOLVED

The BTO extends its congratulations and thanks to all Nest Recorders for adapting so readily to the white Nest Record Cards. The incorporation of a tick box system and large sections of the cards that can be optically read has been vital to speed the generation of early results. These are increasingly being used in the conservation field. A few queries still crop up and if you can help to clarify any listed below in your 1995 card sample it would be much appreciated.

1. **COUNTY/REGION CODE** These codes have been introduced for ease of data processing and are the same as those used by the National Ringing Scheme. Ensure that on all cards the relevant four-figure County or Region Code is used (boxes are now provided on the latest card design) e.g. Kent GBKE, Grampian Region GBGR, Wexford ERWX (see the *Nest Record Scheme Handbook* pages 16-17).
2. **OBSERVER CODE** Please use your code on all cards. When unknown, enquire at the Nest Records Unit at the BTO, leave blank at the last resort.
3. **GRID REFERENCES** Where four-figure grid references are used to help safeguard site confidentiality (rather than the standard six-figure format), make sure that the 10km grid square is correctly spaced using **DASHES** (see *Handbook* page 17).
4. **ACTIVITY CODES** When additional specific handwritten information on aspects of behaviour is supplied, do make sure that it is covered by an activity code **IF** one applies. All activity codes comprise **TWO** characters (see *Handbook* pages 23-25, and the handy blue Coding Card).
5. **STATUS CODE** The status code 'EY' relating to the development of the young has been described in the blue Coding Card as 'Eyes open'. However, to increase its usefulness, we would like it only to be applied when the eyes are **JUST** open and it should be used when the 'blind' and eye 'peeping' stages **JUST** turn to eyes fully open.
6. **SCHEDULE 1 SPECIES** It is **ESSENTIAL** that you have a Schedule 1 licence when visiting nests of species specially protected under the Wildlife and Countryside Act 1981. Observers not covered by a licence are breaking the law and will be fined accordingly for disturbing such birds during the nesting season. For the list of those

species involved and the procedure to secure clearance from the BTO's Licensing Officer, see the back page of this newsletter.

## FORESTRY COMMISSION 'ASSISTANCE FOR WILDLIFE STUDIES' GRANTS

This grant scheme has been in existence for the last few years and is likely to run again in 1996. Assistance is normally up to £20 per project each year and is available for wildlife studies carried out in Forest Enterprise woodlands. Contact your local Forest District Office for an application form and advice. Applications should be submitted no later than 28 February of the year of application.

## WHEN SHOULD TIT-TYPE NESTBOXES BE CLEANED OUT?

Many books and magazines are still giving differing answers to this question. Most, even when dealing with this specific type of nestbox, reiterate the old view that nothing should be removed before October or November. **THIS IS MUCH TOO LATE** and detrimental to both birds and boxes. Instead it is my sincere belief that **ALL BOXES SHOULD BE CLEANED OUT AS SOON AS PRACTICABLE AFTER THE YOUNG HAVE FLEDGED.** Listed below are eight important reasons why:

1. All species using tit-type boxes are invariably single-brooded because their whole nesting programme is timed to coincide with the single flush of defoliating caterpillars.

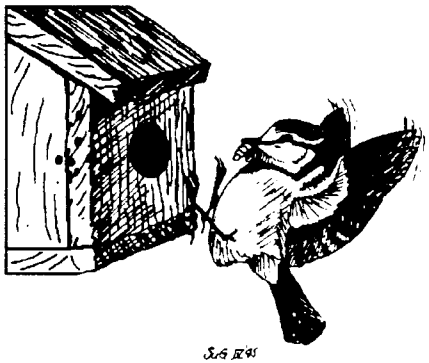
2. On those scarce occasions when a very late first or replacement brood is found or a rare second brood attempted, this may be spotted immediately and the nest left undisturbed.

3. Once young leave a box, they rarely if ever return again that summer, so why delay removal?

4. Some adults carry parasites, especially fleas, which soon transfer to the nest and breed. Rapid removal of **ALL** nesting material not only removes the parasites but also stops them retreating back into cracks or being transferred to other boxes. Affected boxes should then be treated to prevent further occurrences.

5. Occasionally dead young are found which soon begin to smell and attract disease. When this occurs, the sooner everything is removed the better.

6. There is nothing worse than a tit's nest constructed mainly of moss for holding moisture. If nests are left undisturbed until autumn, rot may quickly become established and render boxes useless. Rapid removal not only prevents this but also allows boxes to dry out and become invaluable roosting sites for birds during severe autumn and winter weather.



*Drawing by Su Gough.*

7. Until nesting material is removed **AND INSPECTED** final results cannot be calculated because an egg(s) or remains of a newly hatched youngster may be found trampled down into the material.

8. Finally, until definitive results are compiled, BTO Nest Record Cards cannot be completed and despatched, nor can a nestbox report be prepared and the season truly finished.

Always remember that when young fledge the season is NOT over but that the hardest part - cleaning out boxes - still awaits! What is more, if members have a really true desire to help birds then that dreadful temptation to take a well earned rest, even for a short while, must be resisted until every box has been emptied. Last year all but one of my 300 plus nestboxes were cleaned out by 3 July. If not already in place, why not try and adopt a similar course of action with your nestboxes, it's worth it!

Gordon Vaughan
(Okehampton, Devon)

## NESTBUG

This is an on-line data recording and data processing software for IBM PCs for the automated observation of parental activity, parental weight and the weight of food items brought by parents. It requires the use of a Mettler or Sartorius electronic balance. It has been extensively tested on a number of species since 1990 and is available provisionally free of charge for the purpose of non-profit research work. Contact Zoltan Toth, Population Biology Group, Department of Genetics, Etvos University, Muzeum krt. 4/A, 1088 Budapest, Hungary. (Tel 36 1 266 1296; Fax 36 1 266 2694; E-mail tothz@ludens.elte.hu).

## NEW LIFE FOR OLD DISKS

Sometimes entrance holes for small tit boxes become enlarged over the years, allowing sparrows to oust the tits. Formica or metal plates drilled with a 25mm hole have been the traditional solution to this. An easier alternative - and an environmentally friendly one too - is to use the back of a broken computer mini-floppy disk.

Discard the front and the insides. Shear off the edge with strong scissors and your metal slider hole entrance is ready. The plastic is soft enough not to need drilling pilot holes for tacks before it is nailed on to boxes, yet tough enough to prevent further abrasion by sparrows. It is unlikely that Grey Squirrels will be deterred by the plastic - though in the past I have found formica is not proof against them either.

If you work in a place where floppy disks die regularly (i.e. a school) it takes no time at all to collect an adequate supply. I suspect that patches made from black disks may be off-putting to tits, but would welcome feedback on the use of the technique.


Chris du Feu

## BTO NESTBOXES GUIDE

The BTO's *Nestboxes* Guide No 23 by Chris du Feu remains the definitive advice source for the making, siting and maintenance of nestboxes. The Guide covers boxes, tunnels, rafts and other types of 'artificial' nesting places for more than 80 British birds, ranging from Blue Tit and Barn Owl to Black-throated Diver and Black Guillemot. Fresh information is constantly being sought to ensure that each successive revision or rewrite remains the most up-to-date of its type. Currently, experiments with raptor platforms for species such as Peregrine and Hobby are being explored, also nestboxes for Willow Tit and woodpeckers, artificial seabird colony ledges, a range of anti-predator devices, and more.

If you manage to glean any useful fresh facts during the course of your 1995 fieldwork do please include a summary of your findings with your cards for the year. Alternatively, you may like to send details direct to **Chris du Feu, 66 High Street, Beckingham, Notts DN10 4PF**, who will be revising the Guide once again in a few years. Many thanks. Copies of the current version deserve to be on the bookshelves of all Nest Recorders and can be obtained from the Sales Department, at BTO headquarters, price £4.95 plus p&p.

## SENDING IN YOUR CARDS

Please send all completed cards in one batch as soon as possible after your fieldwork finishes - by **1 FEBRUARY AT THE VERY LATEST**, so that we can include them in the yearly total for *Nest Record News*. Alternatively, cards can be handed directly to staff if you are passing The Nunnery, or if you plan to attend one of the BTO's conferences.

Please ensure that your cards arrive safely by binding them with rubber bands or string, before placing them in a strong envelope for batches of less than 20 cards, or a padded envelope for larger ones. If wrapping the cards in brown paper, please ensure that the paper is not going to get easily ripped and either put them in a polythene bag or cardboard box first for added protection.

## MEMBERSHIP FORM

Enclosed with your copy of *Nest Record News* you will find a BTO membership form. If you are not a BTO member, you may not know of the benefits that members receive. These include our magazine, *BTO News*, six times a year, use of the BTO library and, on joining, discount vouchers for books and sound recordings. Membership subscriptions start from just £11 a year. If you are already a member, please pass this form on to a potential new recruit. Thank you.

## THE NEST RECORDS UNIT

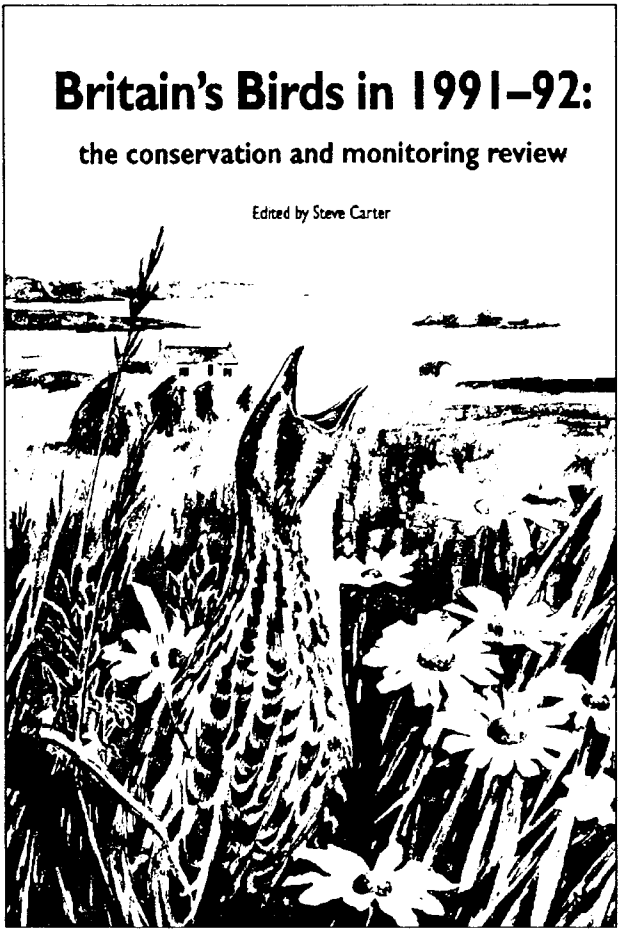
**Humphrey Crick** (Head of Nest Records Unit) is employed under the JNCC contract to develop the use of Nest Record data as part of the Integrated Population Monitoring programme. This is a programme of work aimed at combining the results of nest recording, ringing and censuses to build up an overall picture of how well each species is faring in Britain. He is currently analysing the methodology of the Nest Record Scheme, analysing bunting Nest Record Cards and has responsibility for raptor monitoring within the BTO.

**Caroline Dudley** (Assistant Nest Records Officer) has special responsibility for maintaining the collection of cards and for overseeing their computerisation. She also helps with data analysis, answering data requests and edits *Nest Record News*.

**David Glue** (Nest Records Research Officer) keeps an eye on how each season progresses and summarises the nesting year. He is undertaking a programme of analyses of the basic breeding biology of species of conservation interest. He also maintains the Raptor Research Register and helps to co-ordinate the BTO's garden bird work.

**Mike Toms** (Project Barn Owl National Co-ordinator) succeeded Trudie Docherty who left to take up a PhD studentship in autumn 1994. Part of his work will involve the encouragement of more detailed recording of Barn Owl nests to provide a more systematic monitoring programme for this species.

*Britain's Birds in 1991-92* draws together the results of Britain's major bird monitoring programmes. It is in effect a national bird report for 1991 and the following winter together with a conservation review showing the way active birdwatchers have contributed to conservation in Britain. It audits the changes in our bird population in relation to our management of the environment and gives pointers for work needed to clarify cause and effect.




The information we have on Britain's birds depends largely on the activities of skilled volunteers organised by bodies such as the British Trust for Ornithology. Contributions to *Britain's Birds* in 1991-92 emphasise this relationship and include the results not only of JNCC-funded and BTO work but also those of the Wildfowl and Wetlands Trust, the RSPB and a range of other statutory and voluntary organisations.

*Britain's Birds in 1991-92* is organised into three sections:

- six contributions assess recent conservation successes failures
- twenty contributions report on the individual projects that make up Britain's bird monitoring programme
- species accounts including breeding birds, winter visitors and migrants

*Britain's Birds in 1991-92* can be ordered now from the Sales Department at The Nunnery for £9.95. If buying the new edition, you can purchase earlier volumes at only £2.00 - normal prices are £8.95 (1990-91) and £6.95 (1989-90). Please add £2.00 package and posting to all UK orders.

## BIRD SPECIES PROTECTED UNDER THE WILDLIFE AND COUNTRYSIDE ACT 1981

The species listed below are protected under the Wildlife and Countryside Act 1981 as amended by the Environmental Protection Act 1990. If you wish to consider visiting the nests of any of these species, write to J K Baker, the Licensing Officer, at the BTO for a licence application form. No nest may be visited without prior approval.

The majority of licenses issued during the breeding season for Special List Schedule 1 species are renewals for the same workers who held the appropriate approval during the previous season. Newcomers to the Nest Record Scheme, or recorders who have never held such a licence before, can apply for the relevant approval through the BTO. However, it is necessary to provide two references from 'respected' ornithologists eg County Recorder, BTO Regional Representative, Bird Club Chairman, etc, or a letter of support from a study group - relevant to the species application being sought. Please apply to J K Baker at the BTO, Thetford.

**GENERAL LIST OF SCHEDULE 1 SPECIES** (NB: These six species are Special List species in Scotland)

| | | |
|---|---|---|
| Crossbill | Owl, Barn | Quail |
| Kingfisher | Plover, Little Ringed | Redstart, Black |

**SPECIAL LIST OF SCHEDULE 1 SPECIES**

| | | |
|---|---|---|
| Avocet | Goose, Greylag | Ruff |
| Bee-eater | Goshawk | Sandpiper, Green |
| Bittern | Grebe, Black-necked | Sandpiper, Purple |
| Bittern, Little | Grebe, Slavonian | Sandpiper, Wood |
| Bluethroat | Greenshank | Scaup |
| Brambling | Gull, Little | Scoter, Common |
| Bunting, Cirl | Gull, Mediterranean | Scoter, Velvet |
| Bunting, Lapland | Harrier (all species) | Serin |
| Bunting, Snow | Heron, Purple | Shorelark |
| Buzzard, Honey | Hobby | Shrike, Red-backed |
| Chough | Hoopoe | Spoonbill |
| Corncrake | Kingfisher (Scotland) | Stilt, Black-winged |
| Crake, Spotted | Kite, Red | Stint, Temminck's |
| Crossbill (Scotland) | Merlin | Swan, Bewick |
| Curlew, Stone | Oriole, Golden | Swan, Whooper |
| Diver, Black-throated | Osprey | Tern, Black |
| Diver, Great Northern | Owl, Barn (Scotland) | Tern, Little |
| Diver, Red-throated | Owl, Snowy | Tern, Roseate |
| Dotterel | Peregrine | Tit, Bearded |
| Duck, Long-tailed | Petrel, Leach's | Tit, Crested |
| Eagle, Golden | Phalarope, Red-necked | Treecreeper, Short-toed |
| Eagle, White-tailed | Pintail | Warbler, Cetti's |
| Falcon, Gyr | Plover, Kentish | Warbler, Dartford |
| Warbler, Marsh | Plover, Little Ringed | Warbler, Savi's |
| Fieldfare | (Scotland) | Whimbrel |
| Firecrest | Quail (Scotland) | Woodlark |
| Garganey | Redstart, Black (Scotland) | Wryneck |
| Goldeneye | Redwing | |
| Godwit, Black-tailed | Rosefinch, Scarlet | |

NB *A rarer breeding species than these may be added to the Special List without warning, so if you find one, contact the BTO's Licensing Officer for clearance.*

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