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Nest Record News

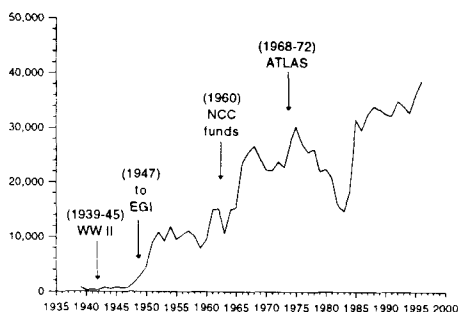
A newsletter for supporters of the NEST RECORD SCHEME, forming part of the BTO's Integrated Population Monitoring programme carried out under contract to the Joint Nature Conservation Committee on behalf of English Nature, Scottish Natural Heritage, the Countryside Council for Wales, and the Department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

Cards total exceeds all expectations in 1996!

We were delighted and somewhat amazed to discover upon counting up the 1996 Nest Record Card intake in mid March, that your overall contributions had smashed last year's highest ever total! 38,710 cards had been received covering 180 species. Once all late arriving cards have been added, the total will exceed the 40,000 mark for the first time! This mammoth total is all the more surprising considering the very cold, late spring of 1996 which concerned BTO staff thought might have deterred birds and nest recorders alike. The Trust extends a big 'Thank You' to everyone who got out and about, at times during arduous conditions. Your records will show just how damaging the poor spring weather was for various of our nesting birds.

How was this unprecedented 1996 total achieved? In general, many species totals were slightly up on 1995, but the Nest Records Unit received the highest ever number of cards for several species in 1996. These included Shoveler (11), Eider (650), Hobby (43), Kittiwake (1,288), Puffin (139), Rock Dove (91), Feral Pigeon (182), Stock Dove (514), Woodpigeon (1,005), Barn Owl (360), Reed Warbler (670), Garden Warbler (111), Blackcap (153), Chiffchaff (148), Bearded Tit (20), Blue Tit (4,144), Rook (1,001), Carrion Crow (373), Starling (581) and Chaffinch (862). Specialist studies of a particular species have contributed towards many of these excellent totals.

NEST RECORD TOTALS



Despite such increases, the annual intake of Nest Record Cards for some birds has declined markedly in recent years. These include: Grey Partridge (generally less than 10 cards per year received since 1980), Whinchat (has declined to less than 40 cards in the last 6 years), Stonechat (26 cards is the lowest total since 1963), Coal Tit (less than 100 cards received in 1996), and Spotted Flycatcher (165 cards is the lowest total since 1983). We would be very grateful if you keep a special eye open for nests of these species in 1997, along with those mentioned on page 16 of this newsletter.

1996 Breeding Season

Introduction to the breeding season

Heronries hit by hailstones, Avocet eggs predated by Coot, nestboxes holding mixed broods of tits and flycatchers, buoyant Woodlark and Whitethroat populations, Quail nesting in set-aside, Hobbies in suburbia, and late nesting Swifts deserting well-grown young - all aspects of the intriguing, if 'below par' 1996 nesting season, as commented upon by BTO members and nest recorders.

Contributors countrywide variously described aspects of the 1996 season as: 'one of the worst for nestbox-using tits and flycatchers on record' (Devon); 'Woodlarks and chats persevered to replace early losses' (New Forest); 'a very poor breeding season for woodland birds overall' (Notts); 'non-stop cold rain on 19th May hit nesting Buzzard, waders and tits' (Gwynedd); 'seabirds and upland waders very late egg-laying, early Dippers washed out' (Lothian); 'snow lay long into March affecting Tawny Owls and most songbirds' (Grampian) and 'Linnets and buntings laid replacement clutches with fair success' (Sussex).

Late and early nesting season surprises

Following the long hot summer of 1995, Indian summer weather in October generated a scattering of late nesting attempts in the UK by grebes, Mallard, doves, Barn Owl, certain finches and Tree Sparrow. The UK's warmest year on record was brought to a striking conclusion in December 1995 as air of polar origin produced some penetrating night frosts and substantial accumulations of snow, effectively eliminating further breeding attempts in a productive year overall.

The subsequent protracted cold, dismal 1995/96 winter, dominated by some lengthy spells of bitterly cold northeasterly winds, caused substantial losses among certain residents. Many seed-eating species were helped by a super-abundance of wild fruits, ripened by the previous summer warmth. The colder and snowier winter than normal checked the early nesting attempts of many species. Nevertheless, the remarkable resilience of certain birds was illustrated in January and February by cases of egg-laying during milder interludes. Barn Owl, Feral Pigeon, Collared

Dove, Blackbird, Mistle Thrush and Crossbill were reported with clutches or young. Most such unusual cases were associated either with a local super-abundance of food or by supplementary warmth generated by the urban micro-climate.

In marked contrast to most recent springs, March was a cool month - the coldest widely since 1987 - setting the tenor for a spring of below average temperatures and a late, in some cases very late, breeding season for many of the UK's birds. Most species which normally egg-lay early, from Golden Eagle, Peregrine and Raven in upland regions to Lapwing, Song Thrush and Long-tailed Tit in lowland study areas, were generally slow to commence nest construction and lay clutches.

The situation was further compounded in early April as overnight temperatures dipped to -8°C in frost hollows. Resilient tree-top nesting Grey Heron, Rook, Carrion Crow and Mistle Thrush benefitted from stable anticyclonic weather conditions and a scarcity of potentially damaging spring gales. In April, a spell of warm southerly winds at Easter-tide assisted the arrival of certain spring migrants and prompted a surge in nesting activity by Robin, Wren, thrushes, among others. Migrant Sedge Warbler, Whitethroat and Sand Martin returned to traditional haunts in encouragingly high numbers. Resident Lapwing, Dipper, Robin, Starling, along with other species, enjoyed many early successes. In April a few leaf warblers, Swallow, even Pied Flycatcher and Redstart commenced clutches by the last week. Many more delayed nesting operations, or lost nest contents to hyper-active predators in the spring of 1996.

May frosts hit tits and flycatchers

It was a grim nesting season for many resident tits and certain migrants. Nestbox scheme operators report, variously, their least productive year overall since 1991, often 1986, in some cases since records were started several decades ago. The culprit was essentially the weather. The chilly, unspring-like March, followed by frosts in early April and mid May was further compounded by an unseasonably cold spell with some rain on a stiff northerly airflow in late May. The coldest

May widely since 1923, with daily temperatures 2°C below normal, retarded tree leaf bud burst and allied insect food supplies by 2-5 weeks in different areas. Nestbox-using resident tits, Nuthatch, Pied Flycatcher and Redstart all suffered, though to varying extents.

With defoliating caterpillars in woefully short supply, many single-brooded species struggled. Initially, nesting tits, Nuthatch, spotted woodpeckers and Chaffinch, among others, fared badly. Resident tits, later migrant flycatchers and Redstarts staggered egg-laying, often deserting initial clutches, while moribund small young and lightweight surviving chicks were features: all indicative of food shortage and a cold late spring. The unseasonably cold spell with rain at times from 18-25th May was a particularly damaging spell in many localities, parents failing to cope with demanding young at a critical period.



Drawing by Maxine Grover.
Species such as the Long-tailed Tit were generally slow to finish nests and complete clutches during the cold, late 1996 spring.

In general, Great Tit and Long-tailed Tit endured the heavier reported losses, but few species seemed to survive intact, losses among open-nesting resident thrushes, Robin, Wren, migrant leaf and scrub warblers also being heavy at this point. Nonetheless, later arriving Pied and Spotted Flycatchers, were less affected. Nestbox inspections sometimes revealed late Great Tit and Pied Flycatcher broods in late July and early August, while mixed clutches of eggs, as resident tits, Nuthatch, even Treecreeper vied for box occupation with flycatchers and Redstart, combined to confuse careful nest recorders. We await with great interest to see the potentially negative impact of the poor 1996 breeding season on box occupation rates this year.

Mixed fortunes for UK's rare breeding birds

It was very much a season of 'ups and downs' for the UK's less common nesting birds, though not without many positively encouraging stories. The twin relict population pockets of Stone Curlews breeding in East Anglia and the southern English downlands increased in size for the first time in a decade as protective measures paid dividends. At least 146 young were raised by 169 pairs, a marginally lower success rate than in 1995, attributed to a combination of the cold spring weather, inactive invertebrate foods, and hyperactive predators. The remnant breeding population of Cirl Bunting centred in the maritime South Hams region of South Devon flourished. Roughly one-half of the 370 nesting pairs successfully reared young, many pairs double-brooding, as cooperative farming methods to help improve year-round food supplies are yielding positive benefits. Bittern showed a small but encouraging increase from 20 to 22 booming males. Corncrake numbers on Orkney and the Hebrides increased for the third year running. Numbers of this, one of Scotland's most highly threatened species, reached 584 calling males, a small increase on 1995, a picture also detected in Ireland, helping to raise conservation hopes.

Rare seabirds suffered a mixed year. Roseate Tern generally held their own overall, performing especially well on Coquet Island, Northumberland.

Little Terns fared poorly at several key sites, notably the Norfolk stronghold at Great Yarmouth where 198 pairs failed to rear a single youngster. High tides and predators (with foxes implicated widely) played havoc at a number of colonies. In Scotland, Common Scoter revelled in a better season at a few nesting strongholds, the reverse applying to the vulnerable loose colonies of Slavonian Grebes. Finally, the increasing numbers of wintering Mediterranean Gulls is at last being translated widely into extra nesting pairs. Breeding was confirmed in Co Wexford, Ireland for the first time.

Raptor recoveries remain on course

Rare birds of prey enjoyed modest breeding successes in 1996, but population recoveries remained very much on course. Osprey returned in greater strength than ever since first reappearing in Scotland in the early 1950s and nesting in 1954.



Drawing by D A Thelwell.

An increase in aerial insect food in the warmer spell from early June to late August provided favourable feeding and nesting conditions for Nightjars, many pairs raising two broods.

Overall, 104 pairs raised 155 young. The relict Red Kite population in Wales also topped 100 pairs, though like the previous species, the cold damp spring weather limited nesting success compared with 1995. Nonetheless, the onward march of the Marsh Harrier was maintained, some 160 nests yielding more than 350 young, while the occupation of fresh sites in western localities was a bonus feature. One-half of the nesting attempts by eight Montagu's Harrier pairings failed, but eleven free-flying young from those successful nests was a welcome bonus. England's only breeding pair of Golden Eagle, in Cumbria, successfully fledged a single eaglet in early August, the first since 1992, and after much speculation on infertility. Hobbies were increasingly observed hunting over built-up areas, nesting pairs in suburban parkland reflecting an ongoing positive expansion in range.

The reintroduction and translocation programmes involving three 'flagship' raptors saw further bold steps taken in 1996. The small fragile population of Sea Eagles in northwest Scotland witnessed a welcome boost. New pairings bred for the first time, involving second generation birds, and nine eaglets were ringed at seven active nests. The Red Kite reintroduction project proceeded apace, exceeding the best hopes of many. The populations of some 40 pairs in England and 16 pairs in Scotland reared 85 and 38 young respectively, while non-breeding birds were noted across much of the UK. Eight Ospreys were released during the summer at Rutland Water Reserve, part of a translocation project to English sites, an attempt to aid and hasten the expansion of the Scottish population which tends to breed in fairly loose 'colonies'.

Sadly, the generally upbeat raptor picture painted for 1996 was clouded by a worrying number of negative reports. A wide spectrum of diurnal birds of prey, most often Buzzard and Peregrine, but regularly involving Goshawk and Hen Harrier, even Sea Eagle, Red Kite and Marsh Harrier, suffered losses through illegal poisoning, shooting and nest robberies. It poses the question - just how far have we educated and improved attitudes towards raptors in recent decades? Nest recorders are asked to be vigilant in 1997.

Summer heat helps owls, chats and larks

Increasing heat from the first week of June, itself the hottest since 1950, was the prelude to a third successive hotter and drier summer than normal in most regions of the UK. Certain struggling nesting resident birds, notably wildfowl, waders and passerines, saw a partial upturn in fortunes, and markedly in some northern parts as winter conditions slipped quickly into glorious summer warmth. From early June through to mid August temperatures topped 30°C across much of the country at times. Initially in early June, winds from the southern sector assisted the return of late migrants to favoured breeding grounds, including Hobby, Swift, Turtle Dove and Spotted Flycatcher. Similarly, certain species late to commence nesting operations at study sites, including Barn Owl, Nightjar, Swallow, martins and Reed Warbler, began egg-laying in earnest. An initial dearth of aerial insect life food supplies was transformed, many birdwatchers enjoying the spectacle of a huge influx of butterflies, moths and certain dragonflies, notably eye-catching painted ladies, silver Y and hummingbird hawkmoths.

As high pressure continued to dominate the weather maps through a sunny and very dry June, and at times hot July and August, the elements were often more conducive to nesting. Conditions helped many thrushes, wagtails, warblers and certain finches in an attempt to redress heavy losses endured in May that had effectively ripped the heart from the breeding season for some. Repeat clutches and broods raised by many hirundines, thrushes, finches, scrub and leaf warblers tended to be small in size and success rates modest. Nonetheless, certain multi-brooded species, including Great Crested Grebe, Moorhen, Stone Curlew, Nightjar, Woodlark, Stonechat, Linnets, Yellowhammer, among others, successfully reared successive sets of young.

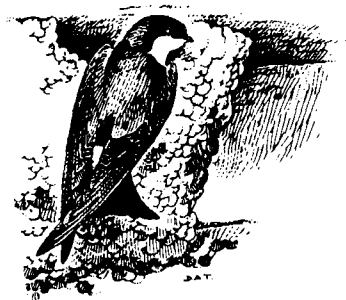
By the end of July, extremes of heat, combined with a fifth successive month of below average rainfall, resulting in parched landscapes, began to pose increasing problems for certain birds. Cases of over-heated and dehydrated Swallow, Skylark and House Sparrow broods were noted. Flimsy nest construction by thrushes, martins and warblers were attributed to lost nest contents,

while falling water levels led to heavy predation of exposed late grebe, duck, Coot and Reed Warbler nests.

Tardy breeding season slips away

Ironically, for a drier summer than average, rainfall had a negative impact at times on the nesting fortunes of certain birds. Periodic thunderstorms, accompanied on occasions by sheet lightning and large hailstones, caused flash flooding from the south coast north to Grampian. From late May through to late August, such cases of very heavy precipitation caused local losses among tree-nesting Grey Heron and Rook, ground-nesting Hen Harrier and Avocet, more widely to thrushes, chats, pipits and warblers. Nevertheless, increased cyclonic activity in August brought welcome relieving rains to many tinder dry habitats under study and vulnerable to fire damage.

Spells of Indian summer weather in September and mid October helped late nesting attempts by certain multi-brooded species. Stock Dove, Barn Owl, Swallow, House Martin, certain buntings and Tree Sparrow were among those species to profit. However, late breeding activity tended to be at a lower level and less productive for many residents and migrants alike compared with 1995, though the BTO has yet to quantify the story for what in the history books will certainly figure as one of our least enjoyable and rewarding of seasons for birds and nest recorders alike. We hope that nature is kinder in 1997.



Drawing by D A Thelwell.

Spells of Indian summer weather in September and mid October helped late nesting attempts by multi-brooded birds such as House Martin.

1996 Card Intake - Sample Highlights

Every card counts: each batch of cards is treasured, is effectively the motto of the BTO's Nest Record Scheme. Considering the generally dismal nature of the spring in 1996, when conditions for nest searching in wet herbage were unpleasant, and slippery ladders made nestbox inspections a real challenge, nest recorders rose magnificently to the task and relayed some marvellous contributions.

Nonetheless, the season could not mask the fact that some cards received will be put to greater use over the years to come in helping shape the future of our bird-life. These fall into three broad categories. Firstly, multi-visit nest histories, especially those following the contents of the nest through to 'outcome' are the most highly prized. Of comparable value are those cards which cover similar sites, and successive generations of birds long-term. Finally, sizeable samples of cards are very useful, especially when covering key monitoring species that fall under the Trust's review programme of the season each year.

Size is in no way a fundamental consideration for nest recorders. A dozen detailed Nest Record Cards completed for your garden birds may well have a greater use to the BTO than a hundred single visit nest records gathered whilst casually birding during the year. Cards following successive attempts by a single pair throughout their full breeding season are perhaps the most highly treasured of any type.

Nevertheless, some observers, or groups, are able to expand this aspect of their birdwatching and spend extra time and effort nest finding and recording - to good effect. In 1996, 445 individuals and 90 groups contributed overall to the record-breaking card total. Those birdwatchers that operated through the 19 local bird clubs and schools, 35 ringing groups and bird observatories, or the 36 National, County Trust, or RSPB/WWT Nature Reserves and Forest Enterprise woodlands kindly benefitted both themselves and the Trust. Group working allowed an exchange of ideas, use of differing observer strengths, reduced potential duplication of nest visiting, and released valuable extra research time at BTO HQ.

Many such groups figure in the list below which covers all contributions that topped the elusive 100 card mark. The overall total of cards per batch are preceded by the number of nests visited more than once (eg 127/134 means that 127 of the 134 cards sent covered nests visited more than once, a commendably high proportion). Single-visit cards have limited usefulness, primarily helping to identify the types of habitats and nest sites: relatively few reveal other important aspects of breeding biology except where a nest is found at egg-laying, hatching, the point of fledging or where the young can be accurately aged. Those observers and groups listed below may illustrate the cream of contributions, but it is the very many more small detailed nest record histories that provide the important backbone of the BTO's Nest Record Scheme. To all, the Trust relays a large 'Thank You'.

W D Allen (Shrops) 122/122 inc. 14 House Martin, 13 Dunnock; **T M Allinson** (Co Durham) 127/134 inc. 28 Garden Warbler, 48 Blackcap; **D S C Arthur** (Tayside) 159/177 inc. 33 Swallow, 13 Ring Ouzel; **K S Arthur** (Sussex) 123/124 inc. 64 Blue Tit, 37 Great Tit; **R E Batty** (Norfolk) 128/165 inc. 21 Blue Tit, 49 Great Tit; **Bentley Wood Advisory Group** (per **A Webb**, Wilts) 97/104 inc. 71 Blue Tit, 30 Great Tit; **Dr K B Briggs** (Hants) 480/481 inc. 160 Oystercatcher, 14 Yellow Wagtail; **Bristol Naturalists' Society** (per **P J Chadwick**, Avon) 201/344 inc. 56 Linnet, 48 Yellowhammer; **J E A Brook, R C Cooke & K F Chedgoy** (Warks) 1338/1459 inc. 166 Woodpigeon, 14 Whitethroat, 27 Magpie; **Calf of Man Bird Observatory** (per **T Bagworth**, Isle of Man) 136/213 inc. 125 Shag, 16 Razorbill; **J E S Cooper & R F Sanderson** (Sussex) 170/221 inc. 10 Stock Dove, 9 Nuthatch; **R E Danson** (Lancs) 784/785 inc. 62 Stock Dove, 17 Little Owl, 119 Tree Sparrow; **S J Denny** (Suffolk) 136/137 inc. 83 Sandwich Tern, 25 Common Tern; **M A Dobb** (Notts) 145/145 inc. 18 Dunnock, 22 Chaffinch; **J Driver** (Gwynedd) 332/334 inc. 23 Buzzard, 141 Carrion Crow; **C & R du Feu** (Notts) 146/146 inc. 4 Marsh Tit, 65 Blue Tit; **Durham Ringing Group** (per **P Bone**, Tyne & Wear) 115/161 inc. 34 Magpie, 13 Tree Sparrow; **Dursely Bird Watching & Preservation Society** (per **B Wherrett**, Glos) 133/133 inc. 53 Blue Tit, 41 Great Tit; **C Emary** (Northants) 132/132 inc. 74 Blue Tit, 52 Great Tit; **Forest Enterprise North Scotland Region** (per **M Canham**) 328/339 inc. 10 Coal Tit, 132 Great Tit; **Forest Enterprise South Scotland Region** (per **G Shaw**) 218/264 inc. 28 Tawny Owl, 17 Meadow Pipit; **P French** (Highland) 501/502 inc. 69 Oystercatcher, 262 Lapwing; **D J Garner** (Cम्bs) 135/141 inc. 5 Longeared Owl, 48 Reed Warbler; **R Goater** (Tayside) 199/199 Elder; **Gordano Valley Ringing Group** (per **T W G Lewis & L Roberts**, Avon) 130/130 inc. 26 Lapwing, 45 Blue Tit; **R W Grainger, N & P Fenwick, J Richardson & M Lonsdale** (Co Durham & Kent)

177/543 inc. 68 Blackbird, 44 Song Thrush, 11 Bullfinch; **Grampian Ringing Group** (per **A Duncan & I Francis**) 128/150 inc. 47 Oystercatcher, 30 Swallow; **D Hazard** (S Yorks) 161/163 inc. 10 Dunnock, 12 Chaffinch; **I, P & D Hildred** (Lincs) 147/148 inc. 12 Robin, 11 Willow Warbler; **P & D Hill** (Str Man) 75/106 inc. 12 Canada Goose, 7 Carrion Crow; **J, M & A Hodson** (W Yorks) 269/310 inc. 23 Long-tailed Tit, 10 Yellowhammer; **P R Holness** (Suffolk) 350/386 inc. 30 Stock Dove, 33 Pied Wagtail; **J C & C A Holt** (Sussex) 162/167 inc. 31 Swallow, 21 Song Thrush; **Hughenden Ringing Group** (per **D Cox & B Hawes**, Bucks) 178/179 inc. 44 Blackbird, 24 Song Thrush; **D C Jardine** (Highland) 153/185 inc. 33 Shag, 82 Stock Dove; **R A Jenkins** (Dyfed) 129/130 inc. 24 Pied Flycatcher, 19 House Sparrow; **MS Jones** (Shrops) 80/138 inc. 4 Lesser Black-backed Gull, 14 Reed Warbler; **JB Kemp** (Camps) 277/277 inc. 173 Lapwing, 7 Yellow Wagtail; **J Kent** (Notts) 226/420 inc. 45 Cormorant, 139 Puffin; **R Lanaway** (Sussex) 130/132 inc. 29 Swallow, 11 Song Thrush; **J M S Lewis & S J Roberts** (Gwent) 178/196 inc. 30 Dipper, 4 Hawfinch; **J Lloyd** (Dyfed) 212/213 inc. 14 Robin, 38 Pied Flycatcher; **R Louch & D Tompson** (Oxon) 316/324 inc. 37 Dunnock, 36 Chiffchaff; **R G Loxton** (Kent) 668/668 inc. 39 Starling, 12 Bullfinch; **F Mawby** (Cumbria) 115/123 inc. 12 Lapwing, 22 Blue Tit; **M O Meadows** (Essex) 502/504 inc. 28 Collared Dove, 6 Turtle Dove, 47 Carrion Crow; **Merseyside Ringing Group** (per **D Norman**, Cheshire, Merseyside & Clwyd) 2035/2485 inc. 307 Woodpigeon, 237 Swallow, 46 Tree Sparrow; **A Morris** (Oxon) 678/745 inc. 223 Chaffinch, 447 Linnet; **J P Moulton** (Anglesey) 99/202 inc. 25 Swallow, 102 Pied Flycatcher; **D A Myers** (Str Man) 199/213 inc. 34 Oystercatcher, 18 Magpie; **G Myers** (Cleveland) 225/230 inc. 33 Stock Dove, 17 Long-tailed Tit; **Nagshead Reserve** (per **I Proctor**, Glos) 317/317 inc. 80 Pied Flycatcher, 181 Blue Tit; **National Trust Farne Islands** (per **J Walton**, Northum) 2422/2422 inc. 110 Fulmar, 280 Eider, 445 Arctic Tern; **North Ronaldsay Bird Observatory** (per **S Stansfield & J Bishop**, Orkney) 658/792 inc. 91 Rock Dove, 125 Starling; **Northumbria Ringing Group** (per **M Holmes**) 420/431 inc. 59 Dipper, 34 Tree Sparrow; **North West Norfolk Ringing Group** (per **T Girling**) 119/222 inc. 79 Fulmar, 64 Ringed Plover; **A B Old** (Cumbria) 182/182 inc. 52 Pied Flycatcher, 98 Blue Tit; **Orkney Ringing Group** (per **E R Meek**) 115/123 inc. 54 Red-throated Diver, 17 Merlin; **C Osthoff** (Co Wicklow) 102/104 inc. 17 Swallow, 12 Blackbird; **P Page** (Devon) 173/174 inc. 72 Pied Flycatcher, 7 Nuthatch; **R H Peart** (Dorset) 179/181 inc. 11 Robin, 15 Spotted Flycatcher; **W Proctor & D Moore** (Warks)

1643 inc. 145 House Martin, 652 Rook, 164 House Sparrow; **S Richardson** (Co Durham) 101/102 inc. 34 Blackbird, 11 Chaffinch; **P H Ridout** (Hants) 116/116 inc. 7 Chiffchaff, 21 Corn Bunting; **H Robb** (Central) 124/126 inc. 20 Redstart, 58 Pied Flycatcher; **J L Roberts** (Clwyd) 235/240 inc. 10 Grey Wagtail, 9 Raven; **P J Robinson** (Isles of Scilly) 274/986 inc. 603 Shag, 68 Song Thrush; **T Robinson** (Cumbria) 157/173 inc. 19 Tawny Owl, 24 Swallow; **P Roe & T Kuechel** (W Yorks) 245/290 inc. 55 Grey Heron, 21 Lapwing; **M D Russell** (Beds) 118/127 inc. 24 Coot, 14 Rook; **Rye Meads Ringing Group** (per **T Spall**, Herts) 121/143 inc. 46 Common Tern, 18 Sedge Warbler; **Salisbury Plain Conservation Group** (per **R Hayden**, Wilts) 145/193 inc. 34 Tawny Owl, 18 Jackdaw; **Scratby Ringing Group** (per **D Parsons**, Norfolk) 102/102 inc. 16 Swallow, 16 Great Tit; **N J Skinner** (Suffolk) 97/105 inc. 10 Herring Gull, 10 Common Tern; **Somerset Wildlife Trust** (per **A Coward & J Parker**) 101/101 inc. 66 Blue Tit, 30 Great Tit; **Sorby Breck Ringing Group** (per **H Vilkaitis**, O Biddulph, G Briggs & al, S Yorks) 361/396 inc. 178 Swallow, 57 Blue Tit; **South Derbyshire Ringing Group** (per **M J Williams**) 136/138 inc. 26 Swallow, 48 Great Tit; **South West Notts Ringing Group & Gibraltar Point Bird Observatory** (per **M Grantham**, Notts & Lincs) 79/105 inc. 55 Pied Flycatcher, 12 Great Tit; **R Squires & G Thomas** (Powys) 187/187 inc. 15 Redstart, 69 Pied Flycatcher; **R Stevens** (Notts) 238 inc. 26 Moorhen, 27 House Martin; **Tain Royal Academy Bird Club** (per **R & R L Swann**, Highland) 433/444 inc. 84 Great Black-backed Gull, 16 Tawny Owl; **R Taylor** (Sussex) 575 inc. 275 Blackbird, 264 Song Thrush; **M Thomas** (Glam) 166/166 inc. 21 Blackbird, 11 Magpie; **S J Tyler** (Gwent) 125/144 inc. 34 Grey Wagtail, 47 Dipper; **G A Vaughan** (Devon) 140/140 inc. 35 Great Tit, 13 Nuthatch; **J Walshe** (Suffolk) 109/119 inc. 14 Blackbird, 7 Chiffchaff; **D Warden** (Avon) 681/727 inc. 23 Great Crested Grebe, 228 Reed Warbler; **J Warwick, P Bowman, S Worwood & P Wright** (N Yorks) 135/215 inc. 4 Tufted Duck, 14 Curlew; **E H Webb** (Suffolk) 119/120 inc. 41 Blue Tit, 44 Great Tit; **N J Westwood** (Camps) 319/325 inc. 7 Great Crested Grebe, 251 Reed Warbler; **Wildfowl & Wetlands Trust, Washington** (per **A Donnison**, Tyne & Wear) 138/159 inc. 27 Mallard, 55 Moorhen; **S Wilmer** (Lancs) 138/138 inc. 54 Swallow, 13 Willow Warbler; **R Wood** (Essex) 126/126 inc. 2 Turtle Dove, 90 Rook.

Milestones Passed in 1996

Waterbirds feature strongly in the outstanding list of milestones reached within the 1996 Nest Record Card intake. Little Grebe and Great Crested Grebe achieved 2,000 and 3,000 cards respectively, the former landmark by A Leach, Lancashire for a nest on a local fishery, and the latter by IJ Herbert, Co. Fermanagh for a nest subsequently predated. Mute Swan reached the 5,000 card mark with R H Peart's history for a pair nesting beside a supermarket car park in Dorset; while Gadwall achieved the century mark via S Kennedy, Cheshire for a nest containing 10 eggs, at least eight of which hatched. Common Tern reached 5,000 cards with B Rutherford, of Essex detailing a nest containing two well-feathered young when last seen. With its best ever annual total, Blackcap attained the 3,000 milestone

when T M Allinson, Co Durham completed a card for a pair nesting typically in a bramble bush. The Ely Valley Rangers, Powys sent in the 10,000th Spotted Flycatcher card and ringed the three nestlings. Similarly Rook attained the 10,000 mark when W Proctor & D Moore, Warwickshire completed a history for a colony nest in the middle of an unimproved grass field. We received the 15,000th Tree Sparrow card from T W G Lewis, Avon detailing the fortunes of a second brood of four young, reared in a nestbox sited on a fence post - a typical nest site for this dramatically declining species. Finally, another seed-eating species, the Chaffinch, attained the 20,000 mark with a card from M Eggleton, Hertfordshire for a nest 2.5 metres up in a hedgerow hawthorn.

Totals For Nest Record Scheme From Pre-1995 To 1996

SPECIES	Pre-95	1995	1996	TOTAL
Red-throated Diver	2,008	95	57	2,160
Black-throated Diver	186	4	4	194
Little Grebe	1,883	102	80	2,065
Pied-billed Grebe	1	.	.	1
Great Crested Grebe	2,890	118	132	3,140
Red-necked Grebe	1	.	.	1
Slavonian Grebe	179	2	.	181
Black-necked Grebe	13	2	.	15
Fulmar	4,394	109	351	4,854
Manx Shearwater	145	82	.	227
Storm Petrel	40	.	10	50
Leach's Petrel	7	.	.	7
Gannet	28	3	2	33
Cormorant	1,461	91	55	1,607
Shag	5,819	622	1,253	7,694
Bittern	20	.	2	22
Little Bittern	1	.	.	1
Grey Heron	4,317	393	260	4,970
Night Heron	3	.	.	3
Mute Swan	4,669	175	162	5,006
Whooper Swan	7	.	1	8
Bar-headed Goose	.	1	.	1
Greylag Goose	552	16	21	589
Snow Goose	.	2	.	2
Canada Goose	2,479	261	204	2,944
Barnacle Goose	2	8	3	13
Egyptian Goose	26	12	8	46
Shelduck	261	13	5	279
Mandarin	253	14	15	282
Wigeon	157	4	1	162
Gadwall	85	14	9	108
Teal	212	5	2	219
Mallard	7,421	198	215	7,834
Pintail	23	.	.	23
Garganey	9	.	.	9
Shoveler	135	8	11	154
Pochard	121	4	8	133
Tufted Duck	1,063	26	32	1,121
Scaup	1	.	.	1
Eider	2,528	355	650	3,533
Common Scoter	40	.	.	40
Goldeneye	126	32	29	187
Red-breasted Merganser	244	3	3	250
Goosander	228	19	7	254
Ruddy Duck	76	11	9	96
Honey Buzzard	19	4	1	24
Red Kite	19	3	1	23
Marsh Harrier	34	7	7	48
Hen Harrier	1,306	40	60	1,406
Pallid Harrier	.	1	.	1
Montagu's Harrier	48	3	1	52
Goshawk	342	77	45	464
Sparrowhawk	4,472	217	115	4,804
Buzzard	4,191	170	199	4,560
Golden Eagle	434	5	14	453
Osprey	41	3	9	53
Kestrel	5,869	238	224	6,331
Merlin	2,393	157	142	2,692
Hobby	494	32	43	569

SPECIES	Pre-95	1995	1996	TOTAL
Peregrine	2,015	92	82	2,189
Red Grouse	643	22	10	675
Ptarmigan	136	2	.	138
Black Grouse	58	2	1	61
Capercaillie	78	.	2	80
Red-legged Partridge	441	4	3	448
Chukar	.	1	.	1
Grey Partridge	790	8	12	810
Quail	12	2	.	14
Pheasant	1,947	48	37	2,032
Golden Pheasant	6	.	.	6
Lady Amherst's Pheasant	1	.	.	1
Water Rail	97	1	1	99
Corncrake	29	1	.	30
Moorhen	18,928	584	448	19,960
Coot	12,818	749	533	14,100
Oystercatcher	12,026	592	450	13,068
Black-winged Stilt	2	.	.	2
Avocet	517	.	24	541
Stone Curlew	430	.	.	430
Little Ringed Plover	1,645	45	69	1,759
Ringed Plover	7,416	239	195	7,850
Kentish Plover	19	.	.	19
Dotterel	250	.	1	251
Golden Plover	782	15	14	811
Lapwing	19,450	1,082	885	21,417
Temminck's Stint	1	.	.	1
Purple Sandpiper	3	.	.	3
Dunlin	503	3	1	507
Ruff	4	.	.	4
Snipe	1,420	59	44	1,523
Woodcock	574	14	6	594
Black-tailed Godwit	13	.	7	20
Whimbrel	60	.	.	60
Curlew	2,550	62	66	2,678
Redshank	2,053	109	100	2,262
Greenshank	156	1	1	158
Wood Sandpiper	2	.	.	2
Common Sandpiper	1,296	44	30	1,370
Red-necked Phalarope	97	12	30	139
Arctic Skua	313	5	1	319
Great Skua	371	6	20	397
Little Gull	3	.	.	3
Black-headed Gull	8,031	464	313	8,808
Mediterranean Gull	3	3	.	6
Common Gull	3,501	325	294	4,120
Lesser Black-backed Gull	1,189	31	18	1,238
Herring Gull	5,074	332	134	5,540
Great Black-backed Gull	1,849	225	91	2,165
Kittiwake	6,944	1,197	1,288	9,429
Lesser Crested Tern	4	.	1	5
Sandwich Tern	1,687	43	83	1,813
Roseate Tern	656	40	27	723
Common Tern	4,553	386	170	5,109
Arctic Tern	4,683	677	871	6,231
Little Tern	4,467	113	246	4,826
Guillemot	1,092	2	8	1,102
Razorbill	735	33	64	832
Black Guillemot	1,161	62	77	1,300
Puffin	261	.	139	400
Rock Dove	313	15	91	419
Feral Pigeon	1,556	54	182	1,792

SPECIES	Pre-95	1995	1996	TOTAL
Stock Dove	5,902	344	514	6,760
Woodpigeon	21,437	856	1,005	23,298
Collared Dove	3,508	198	186	3,892
Turtle Dove	1,842	23	28	1,893
Ring-necked Parakeet	7	1	12	20
Cuckoo	1,949	28	19	1,996
Barn Owl	3,025	299	360	3,684
Snowy Owl	2	-	-	2
Little Owl	1,518	59	65	1,642
Tawny Owl	6,959	366	392	7,717
Long-eared Owl	630	20	28	678
Short-eared Owl	332	6	10	348
Nightjar	1,270	61	80	1,411
Swift	1,130	166	61	1,357
Kingfisher	566	12	12	590
Hoopoe	1	-	-	1
Wryneck	23	-	-	23
Green Woodpecker	301	12	13	326
Great Spotted Woodpecker	1,011	53	37	1,101
Lesser Spotted Woodpecker	158	4	2	164
Woodlark	800	80	80	960
Skylark	6,494	133	100	6,727
Sand Martin	1,037	76	25	1,138
Swallow	43,614	1,667	1,815	47,096
House Martin	7,125	537	397	8,059
Tree Pipit	1,518	21	21	1,560
Meadow Pipit	8,426	207	162	8,795
Rock Pipit	675	30	21	726
Yellow Wagtail	928	17	23	968
Grey Wagtail	4,917	244	148	5,309
Pied Wagtail	8,158	298	230	8,686
Dipper	8,288	290	252	8,830
Wren	13,259	404	313	13,976
Duncock	27,976	381	402	28,759
Robin	17,931	420	472	18,823
Nightingale	428	3	3	434
Bluethroat	1	-	-	1
Black Redstart	138	2	-	140
Redstart	5,335	217	155	5,707
Whinchat	1,836	32	30	1,898
Stonechat	2,448	184	26	2,658
Wheatear	3,131	102	86	3,319
Ring Ouzel	1,395	47	30	1,472
Blackbird	119,291	1,534	1,617	122,442
Fieldfare	7	-	-	7
Song Thrush	69,164	727	711	70,602
Redwing	111	-	-	111
Mistle Thrush	7,038	176	216	7,430
Cetti's Warbler	24	-	1	25
Grasshopper Warbler	352	7	1	360
Savi's Warbler	2	-	-	2
Sedge Warbler	4,163	156	129	4,448
Marsh Warbler	166	1	-	167
Reed Warbler	9,984	513	670	11,167
Dartford Warbler	415	17	6	438
Lesser Whitethroat	784	19	12	815
Whitethroat	5,303	178	145	5,626
Garden Warbler	1,636	63	111	1,810
Blackcap	2,823	97	153	3,073
Wood Warbler	2,149	96	51	2,296
Chiffchaff	2,251	97	148	2,496

SPECIES	Pre-95	1995	1996	TOTAL
Willow Warbler	11,265	237	262	11,764
Goldcrest	730	18	15	763
Firecrest	9	-	-	9
Spotted Flycatcher	9,707	223	165	10,095
Pied Flycatcher	29,449	1,821	1,652	32,922
Bearded Tit	59	-	20	79
Long-tailed Tit	4,436	220	195	4,851
Marsh Tit	1,203	39	35	1,277
Willow Tit	406	14	8	428
Crested Tit	288	13	38	339
Coal Tit	4,566	128	93	4,787
Blue Tit	66,119	4,108	4,144	74,371
Great Tit	41,376	2,551	2,541	46,468
Nuthatch	2,673	118	126	2,917
Treecreeper	2,107	59	63	2,229
Short-toed Treecreeper	1	-	-	1
Golden Oriole	41	-	-	41
Red-backed Shrike	256	-	-	256
Jay	1,368	33	32	1,433
Magpie	6,430	225	324	6,979
Chough	584	14	18	616
Jackdaw	5,522	299	257	6,078
Rook	9,212	188	1,001	10,401
Carriion Crow	6,091	210	373	6,674
Hooded Crow	1,049	10	7	1,066
Raven	2,719	153	92	2,964
Starling	13,322	336	581	14,239
House Sparrow	11,088	142	358	11,588
Tree Sparrow	14,581	382	456	15,419
Chaffinch	19,147	496	862	20,505
Brambling	2	-	-	2
Serín	1	-	-	1
Greenfinch	12,845	220	194	13,259
Goldfinch	2,857	52	69	2,978
Siskin	70	5	-	75
Linnet	24,799	420	1,016	26,235
Twite	845	3	2	850
Redpoll	1,288	2	10	1,300
Common Crossbill	147	2	1	150
Parrot Crossbill	4	-	-	4
Scarlet Rosefinch	1	-	-	1
Bullfinch	5,065	64	94	5,223
Hawfinch	159	6	9	174
Snow Bunting	59	-	-	59
Yellowhammer	6,314	144	232	6,690
Cirl Bunting	251	-	1	252
Reed Bunting	7,395	95	91	7,581
Corn Bunting	688	60	55	803
GRAND TOTAL	973,170	36,264	38,710	1,048,144

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-1995 and 1995 have changed since those printed in *Nest Record News* No. 12 due to the addition of cards received at the BTO after March 1996.

Covering the Complete Season

The message may be much the same each year, the coverage graph broadly similar, but the Nest Record Scheme makes no apology for asking that contributors please make every effort to **See the Complete Season Through!** It is vital that the Trust receives nest histories that cover **all** stages of the breeding cycle for **all** species encountered.

The nesting attempts by six broad groups of birds are more likely to go undetected by observers and deserve a particularly careful eye: (1) Some single-brooded species may lose their early clutch, and quickly repeat, sometimes laying in the same nest (eg **Sparrowhawk, Kestrel, Lapwing, Little Owl, Coal Tit, Great Tit**); (2) others will regularly lay replacement clutches, and also rear second broods, notably when weather conditions and food supplies are favourable (eg **Great Crested Grebe, Little Ringed Plover, Redstart, Whinchat, Willow Warbler, Chaffinch**); (3) many more birds are multi-brooded and may raise two, sometimes three, even more broods given suitable conditions over the course of a protracted season (eg **Coot, Kingfisher, Swallow, Robin, Stonechat, Greenfinch**); (4) certain birds are adapted to commence egg-laying very early in the year, during January and February on occasions (eg **Grey Heron, Tawny Owl, Dipper, Song Thrush, Raven, Crossbill**); (5) fewer sometimes lay late clutches, from September to November, and easily go undetected (eg **Little Grebe, Moorhen, Stock Dove, Collared Dove, Linnet, Corn Bunting**); (6) finally, 'opportunists' may lay clutches at virtually any time of the year when food supplies are unusually plentiful, or during spells of exceptional warmth (eg **Mallard, resident doves, Barn Owl, Blackbird, Starling, House Sparrow**).

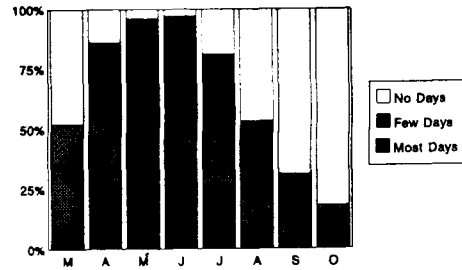
The overall message is essentially one of **'Eyes open at all times'**.

As the season develops, temperatures rise and the vegetation thickens, song invariably fades somewhat and family holidays may intervene, hence recording effort and efficiency may dwindle as nests become progressively more difficult to locate. The BTO is able to check the representative nature, or otherwise, of the card samples collected randomly each year by casual nest finders against those accumulated by 'species-specialists'. If you locate **all** the successive nesting attempts by a **single pair**, or a discrete population of birds, over the course of your fieldwork in 1997 **do please list the relevant species on your summary sheet**. The role of the 'specialist' is one of growing importance.

Currently, a good regional spread of 'specialists' are tackling a broad spectrum of species such as Lapwing, Stock

Dove, Barn Owl, Blackbird, Blue Tit, Pied Flycatcher and Swallow. An encouraging number are also placing much of their attention on Merlin, Tawny Owl, Dipper, Reed Warbler and Carrion Crow. Sadly, very little interest is currently shown for Water Rail, Little Ringed Plover, Turtle Dove, Rock Pipit, Willow Tit, Jay, among many others, which richly deserve an in-depth study. Do please consider taking on the role of a 'specialist' if time allows.

Observer Effort Graph



Proportions of observers spending different amounts of time searching for nests in each month.

The coverage diagram (above) depicting monthly 'recording effort' noted by 460 observers on their summary sheets for 1996 presents an encouraging picture. Despite the legacy of a colder and snowier winter 1995/96 than average, just over half of observers spent at least a few days recording during the cold and dull March, charting early nesting attempts by waterfowl, Tawny Owl, doves, thrushes, among others. The nest recording effort increased markedly during a warmer and drier April, as in previous years, as most residents commenced nesting. However, unlike previous seasons, the recording effort in a wicked cold May was more than matched by that in June, spilling over into a busy July as increasing warmth encouraged many nestbox-using tits, flycatchers, Redstarts to extend a protracted breeding season. To the great credit of the nest recording team the majority continued to find nests and record their fortunes on a few days or more during most of August, covering attempts by late nesting multi-brooded doves, hirundines, finches and buntings. Nest recording was maintained at a lower level in September and October as spells of Indian summer weather helped entice a spate of late breeding efforts, all helping the BTO to paint a full picture of an intriguing 1996 season.

1995 Annual Monitoring Report

One of the key products of your hard work each year is the Annual Monitoring Report of the BTO's Nest Record Scheme which describes the features of the year in question and highlights any long-term trends of decline in breeding performance. 'Alerts' are issued to the UK government's conservation bodies, foremost to the Joint Nature Conservation Committee (JNCC), for species with the severest declines. Information from a quarter of a million Nest Record Cards covering 79 species were analysed for the 1995 report (*BTO News* 207: 5-7).

For 1995, the types of 'Alert' were split into three rather than two different kinds as they are now based on those species which are suffering population declines severe enough to be on either the JNCC's and Country Conservation Agencies' *Conservation Value List* (CV List) or the non-governmental organisations' list of *Birds of Conservation Concern* (BOCC) (sub-divided into 'Red' and 'Amber' lists). 'High Alert' species are those on the CV List or BOCC Red List, 'Medium Alert' species are those on the BOCC Amber List, and 'Low Alert' species are those on neither CV or BOCC lists but which are showing worrying trends of decline in breeding performance. Both lists are based on population trends measured over 25 years, so the Nest Record Scheme modified the 1995 report to cover a 25-year period too.

Once the 1995 data had been analysed, we issued alerts to the JNCC for the following species:

High Alert

Hen Harrier	a significant decline in average clutch size over the past 25 years.
Bullfinch	average brood sizes in the 1990s amongst the lowest recorded.
Reed Bunting	increasing nest failures.

Medium Alert

Red-throated Diver	increasing nest losses.
Lapwing	increasing overall nest content losses, despite clutch sizes appearing to be on the increase.
Kingfisher	recent decline in brood sizes.
Stonechat	increasing overall nest losses although average brood sizes appear to be increasing.

Low Alert

Moorhen	average clutch sizes have decreased by half an egg over the 25-year period and nest failure rates have been 50% higher than expected in the 1990s.
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Raven	average brood sizes have continued to decline.
Greenfinch	nest losses at the egg-stage are nearly double those suffered in the 1970s and 1980s.

In addition to trends for individual species, the report mentions general trends in breeding performance for birds in the UK. For example, 17 species show significant trends towards earlier egg-laying (eg Long-eared Owl, Redshank, Dunnock, Chiffchaff and Bullfinch) but only one species (Stock Dove) has a later distribution of laying dates; 12 species have increased average clutch sizes (eg Grey Wagtail, Tree Pipit and Tree Sparrow) compared with decreases for three species (Hen Harrier, Moorhen and Rook); 23 species have increased average brood sizes (eg Kestrel, Dipper, Robin, Willow Warbler and Skylark) compared with decreases for eight species (eg Raven, Kingfisher, Redpoll, Lesser Whitethroat and Treecreeper); and nesting success has improved for 24 species (eg Buzzard, Grey Wagtail, Marsh Tit, Wheatear and Stock Dove) but declined for three species (Red-throated Diver, Greenfinch and Reed Bunting).

The effects of weather on breeding birds in 1995

The general pattern of the 1995 breeding season included early spring warmth, late spring frosts, and then the searing heat and drought of the summer. These factors affected the UK's nesting birds in a variety of ways, producing a rather mixed year.

Migrants such as Nightjar, Swallow, Redstart, Wheatear, Blackcap, Sedge and Wood Warblers bred relatively early overall, probably encouraged by the warm spring and nesting operations were cut short by the drought in some cases; but seed-eating birds such as Collared Dove, Bullfinch, Linnets, Reed Bunting and Corn Bunting, and certain resident insectivores, including Song Thrush, Stonechat and Wren had late distributions of laying dates.

The numbers of species producing relatively small average clutches and broods were about the same as those producing large ones. Species that seemed to take advantage of the warm spring or hot summer by producing significantly large broods included Hobby, Spotted Flycatcher, Stonechat, Treecreeper, Blackcap, Raven and Bullfinch.

High and low nest failure rates were also evenly spread among species, with only one group being particularly badly affected. Migrant insectivores such as Whitethroat, Sedge and Wood Warblers suffered from relatively high nest losses during the egg stage, possibly affected by the unseasonably cold weather in late May.

New Projects

The following projects using Nest Record Card data have been initiated since *Nest Record News* No. 12:

- a. Nicholas Aebischer - Corn Bunting & Song Thrush
- b. Len Campbell & Innes Sim - Buzzard in Wales and border counties
- c. Roger Clarke - Montagu's Harrier
- d. Dan Forman - Moorhen
- e. Louise Harris - Song Thrush, Blackbird & Spotted Flycatcher in Cornwall & Devon
- f. Charlie Hoit - Swallow in Sussex
- g. Andrew Hoodless - Lapwing, Redshank & Snipe in Hampshire, Wiltshire & Dorset
- h. Dick Loxton - Blackbirds on Bardsey Island, Gwynedd
- i. Michael Taylor - Merlins in the Peak District

Have A Go Yourself

There are 53 studies currently underway that are using Nest Record Cards, 23 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.

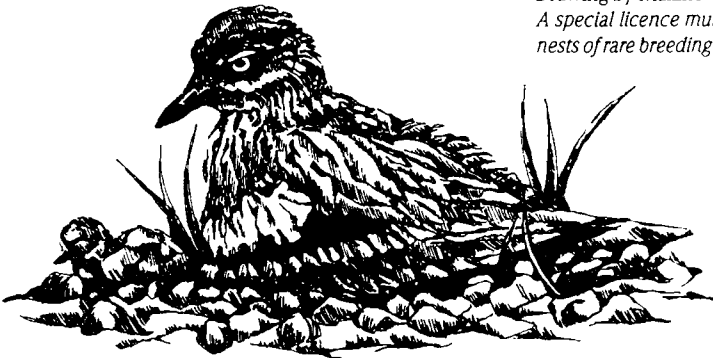
Nest Recording Rare Birds

Completing Nest Record Cards for scarce and rare birds is an important task but, of necessity, a strictly controlled one. In the recent past, information extracted from historical files of cards at BTO HQ has been used to help frame conservation strategies for many species, ranging from Peregrine and Merlin to Barn Owl and Gull Bunting. However, our quest to improve our knowledge of the breeding biology of rare birds in Britain to help their long-term welfare must in **no way** be countered by excessive and potentially

damaging attention in the short term. It is **essential** that one has a Schedule 1 licence when visiting nests of birds protected under the Wildlife and Countryside Act 1981. Observers not covered by a licence are breaking the law and will be prosecuted and fined accordingly for disturbing such species during the nesting season. For details of the species involved and the procedure to secure clearance from the BTO's Licensing Officer, see the back page of this newsletter.

Drawing by Maxine Grover.

A special licence must be obtained before visiting the nests of rare breeding species such as the Stone Curlew.



Help Complete Error-free cards

It was with some trepidation that the BTO introduced the modern format 'white' Nest Record Cards 7 years ago. This was a vital move that now allows the Trust to provide a rapid feedback of information on trends in the breeding performance of the UK's birds, of value to help guide the policies of interested government environmental agencies, conservation bodies, academic ornithologists and interested birdwatchers, with the short and long-term interests of our birds in mind. The BTO has been delighted by the enthusiastic and appreciative manner in which the loyal team of nest recorders took the new recording card in their stride.

A few queries continue to crop up each year, and those **commonest ten problems** foxing nest recorders are listed below. Any help in eliminating them from your 1997 batch of Nest Record Cards will help to save valuable time at Thetford HQ, and to ensure a more complete and accurate record of your fieldwork for analysts to interpret and use to good effect over many years ahead.

1. **Species Name.** Please use the full English name (eg Song Thrush not 'Thrush', Common Sandpiper not 'Sandpiper'). Alternatively the abbreviated five-letter code name used by the National Ringing Scheme will suffice.
2. **County/Region Code.** Ensure that all cards contain the four letter County or Region Code (eg Devon GBDV, Fife Region GBFR, Donegal ERDO). See *Nest Record Scheme Handbook* pages 16-17. Continue to use the county codes given in the *Handbook* even if your county name has changed, as is the case in Wales, Scotland, and parts of England.
3. **Observer Code.** Please use your own personal code, or that of the group that coordinates your fieldwork, on all cards. If unknown, enquire at the Nest Records Unit, Thetford HQ, or leave blank at the last resort.
4. **Grid References.** When four-figure grid references are used to help safeguard site confidentiality (rather than the normal six-figure reference) make sure that the 10km grid square is correctly spaced by using **dashes** eg. SK41-23 -. See *Handbook* page 17.
5. **Activity Codes.** Feel free to add handwritten detail of interesting aspects of behaviour on each visit. Be sure, though, that any such points are also covered by the relevant two-letter activity code **if** one exists eg **AN** for 'adult on/at the nest'. See *Handbook* pages 22-25, and the useful blue Coding Card.
6. **Nest Site Information.** Extra detail on the nest site is welcome and should be added in the Comments Box (see *Handbook* page 21) on the reverse side of the Nest Record Card. Pictorial sketches or diagrams are treasured.
7. **Boldly Marked Boxes.** The Nest Records Unit prides itself on having the most careful and neatest set of recorders of any BTO scheme. Please do not let us down in 1997! Mark all cards clearly, and all boxes **boldly, in black biro** to ensure accurate interpretation by the optical mark reader machine.
8. **Collation of Successive Nesting Attempts.** Please use paper clips, ideally staples to keep all cards covering subsequent nesting attempts by the same pair of birds together. Please staple them together **only** in the red box on the reverse side of the card marked 'Staple Here Only'. See *Handbook* page 17.
9. **Schedule 1 Approval.** If you have been licenced to visit the nests in 1997 covered by the Wildlife and Countryside Act 1981 please give your registration number in the relevant space on the back of your Summary Sheet. If you would like to obtain a Schedule 1 species licence for the 1998 breeding season, see the back page of this newsletter for details on how to apply.
10. **An Accurate Summary Sheet.** Having ensured that your cards are as complete as possible, add the species totals to your Summary Sheet, request replacement materials required for 1998, and double-check. Many thanks.

More Records Please

The annual intake of Nest Record Cards 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 make extra efforts to record the nests of the following species.

Curlew
Redshank
Nightjar
Skylark

Whinchat
Stonechat
Wheatear
Wood Warbler

Raven
Bullfinch
Reed Bunting
Corn Bunting

A Prompt and Safe Return of Cards

Your hard won findings deserve careful handling. Please send all completed Nest Record Cards in a single batch as soon as possible after your fieldwork draws to a close - and by **1st February 1998 at the very latest**, so that your results can be included in the yearly totals for *Nest Record News* and the Annual Report on the 1997 nesting season. Alternatively, cards can be handed directly to staff if you are in the vicinity of The Nunnery, or if you attend BTO conferences, notably those at Swanwick in Derbyshire: the Members' Conference in December 1997 and Ringers' Conference in January 1998. At these gatherings staff will be

available to discuss findings, problems and relay replacement recording materials if required.

Do ensure that your cards are bound safe and sound. Small batches of less than 20 cards are suitably carried by a strong envelope. Larger batches deserve to be placed in a padded envelope. All card batches should first be bound using rubber bands or string. When wrapping cards in brown paper please ensure that this is not going to be easily ripped by first placing them in a plastic polythene bag or cardboard box for extra protection. All batches of cards should be accompanied by a completed Summary Sheet and the totals double-checked. Many thanks.

Lottery Windfall

BTO staff were delighted to hear in 1996 that their proposal to the Heritage Lottery Fund to provide financial support for the archiving of all the BTO's data, had been successful with £140,000 allocated. Since the BTO's first computer was installed in 1978, we have stored much of the survey information in electronic form. However, a backlog of data is still awaiting computerisation and as the original paper copies are the only ones we have, these are particularly vulnerable to vandalism, fire, mice etc. In the Nest Record Scheme, more than one third of a million cards have been input and are now on computer file. However, this still leaves two thirds of a million cards for which there is no replacement should the original copy be lost - a worrying thought.

The Lottery money has allowed us to begin

storing the original data as optical images on CD ROM and the Nest Record Scheme was the first BTO scheme to benefit. You will be pleased to hear that work began on making copies of each Nest Record Card in January 1997. Already 350,000 have been copied and this work should be completed this summer.

The work will safeguard almost 60 years of irreplaceable fieldwork and hasten analyses. The whole project will take four years altogether, during which time the BTO has to raise the other half of the money required. Fund raising is going well so far, but we are still £30,000 short of our target. If you are able to support this project we would be very pleased for a donation, which you should send to The Appeal Secretary here at BTO Headquarters. Please make cheques payable to BTO. Many thanks.

Nagshead Reserve Notches Fifty Years

Our congratulations go to the RSPB's Nagshead reserve in Gloucestershire for notching up fifty years of nest recording in 1997. It was here that the late 'top' nest finder and recorder Bruce Campbell undertook some of his formative work on Pied Flycatchers, helping to demonstrate their affinity with, and exploitations of nestboxes in the UK. Bruce went on to write the classic book *Finding Nests* (1953, London) which inspired many birdwatchers to observe and record nests in post-war years, also acting as co-author for the indispensable *A Field Guide to Birds' Nests* (1972, Constable, London) with James Ferguson-Lees, now both sadly out of print.

Today the reserve's nestbox scheme is faithfully recorded by Ivan Proctor, the RSPB's head warden of Gloucestershire's reserves. Ivan submitted an excellent set of 317 cards for 1996 and his accompanying letter so neatly encapsulated the

nature of the 1996 season. Talking of the 50 year milestone beckoning, and the important studies undertaken by Bruce Campbell he wrote:

"I doubt whether even Bruce (Campbell) would have been able to recall a year like this - average first egg dates: Blue Tit May 13th, Great Tit May 20th, Pied Flycatcher May 24th! Cold, lack of food and predation all made for a memorably bad season but the birds soldiered on to produce 268 fledged young Pied Flies, 162 Great Tits, and 515 Blue Tits from a record 186 pairs. Hopefully next season will be kinder to them all!"

Retrospective analysis of the BTO's historical data will answer Ivan's question in due course, but initial impressions suggest that 1986 was an equally poor season in many parts, though for some schemes for an even longer period.

David Glue

Get More From Your Cards: Try a Report

We all take pride in filling in our Nest Record Cards and the more industrious even see their names in lists, if they manage to reach 'three figures'. Most of us never hit that magic number, but we can still boost the conservation benefit of our cards, over and above that which accrues directly through the BTO.

In my ringing work I always make a point of writing short reports for each of many ringing sites. The landowners appreciate some evidence of work being done on a scientific basis and, let's face it, the analyses done later by the BTO are probably not perceived by owners, to have origins in their particular patch of land. I have carried this reporting through into nestbox schemes, even quite small ones, and would encourage everyone to 'get into print'.

The benefits of writing a report are not limited to pleasing landowners; some unexpected advantages can appear. One of my reports was used by a local golf club, on whose land I operated, to help win them an environmental award. This

success raises their awareness of environmental matters and, in the long run, is good for birds. More usually the discipline of organising a year's data gives you a better insight into your birds. Without collating all the Swallow cards from one particular farm I would not have been able to estimate the number of pairs, nor how they were moving about between successive broods.

A report is a distillation of field notes, put into the context of previous years' observations. It is not often one wishes to dig out old notebooks; so much easier to see the salient points in one report. Last year's tit boxes were again shown to be a week behind normal: but why were they not even later, when the trees and vegetation called for two more weeks beyond that?

I may not have the answer, but at least, through my reporting work, I can measure the question.

Stuart Downhill, Berkhamsted, Hertfordshire

The Nestbox Challenge

At the beginning of 1996, the BTO and *Birdwatching* magazine launched the Nestbox Challenge to find new and exciting designs for nestboxes, new methods of attachment, new materials or some trick for attracting birds to use them. Many entries were received and the two top prizes were awarded to BTO members and nest recorders Kevin Briggs and Geoff Horne.

Kevin's winning design was for a raised nest site for Oystercatchers which keeps the eggs and very young chicks off the ground and away from predators and the hooves of grazing animals. Second prize, for Geoff Horne, a dedicated Peregrine enthusiast, was for a carefully designed clip-on eyrie for buildings, something which is likely to be increasingly used as this magnificent raptor spreads from its upland and coastal haunts.

The New 1997 Nestbox Challenge

The BTO and *Birdwatching* magazine have teamed up again this year and invite you to come up with new ideas which may be about any aspect of nestboxes. Perhaps you have an entirely new design or simply a clever improvement. All entries are welcomed - even if they turn out not to be new - and there are three splendid prizes!

First prize: a complete 'BoxWatch' camera system for 'bugging' your own nestbox using closed circuit TV (RRP £299) donated by BoxWatch Ltd.

Second prize: three Schwegler 'woodcrete' nestboxes donated by Jacobi Jayne & Company.

Third prize: a copy of the BTO guide *Nestboxes* and free BTO membership for a year.

Each winner will also receive one year's free subscription to *Birdwatching*, and the prizes will be presented on the *Birdwatching* stand at the 1997 British Bird Fair at Rutland Water in August. The judges will be Humphrey Crick, Dave Cromack of *Birdwatching*, Chris du Feu, and Chris Mead. Entries should be sent to: **Chris Mead, BTO, The Nunnery, Thetford, Norfolk IP24 2PU**. Ideas submitted may be used in future editions of *Nestboxes* and may be reported in *Birdwatching*, *BTO News* and 'Nest Box 1998'. The closing date for entries is 30 June 1997.

BTO Nestboxes Guide No. 23

This BTO guide is widely acclaimed as the definitive guide for making, siting and maintaining 'boxes' of all shapes, sizes and types. The artificially created nesting places covered range from rafts, tunnels, ledges and chimneys, to conventional Blue Tit and Robin type nestboxes. Alternative nesting places for over 80 species of British bird are included, from Green Woodpecker to Goosander, Swallow to Stock Dove, and Wren to Common Tern. Copies of the latest edition can be obtained from the Sales Department, BTO Headquarters, price £4.95 plus £1.00 p & p.

Chris du Feu is always pleased to hear of any new ideas and findings you may have on nestbox design for future issues of the guide. If you don't wish to take part in the 'Nestbox Challenge' mentioned above but have some new ideas and findings on nestbox design, please send them to: **Chris du Feu, 66 High Street, Beckingham, Notts DN10 4PF.**

Can You See Around Corners?

I have found a tool which will be very useful when trying to examine the interior of a cavity in a tree, such as the nest of a woodpecker, Little Owl, Starling or Jackdaw, or where bats might roost. It consists of a battery operated light and an adjustable mirror on the end of a flexible stalk, and is called an 'Inspection and Pick-up Tool with Mirror and Light', a Sealy Professional Tool model AK650, and I bought it in a motor accessory shop for £10.50. Sealy Power Products are based in Easley Road, Bury St Edmunds, Suffolk IP32 7BY, and although called a pick-up tool, it doesn't: it is not magnetic nor does it have a 'grab'. It will enter a 3cm hole, and my field trials have demonstrated that it is a great improvement on the dentist's mirror and a torch. The Draper range of tools also includes a tool with a mirror on a flexible stalk, but it does not have a light and the mirror has a diameter of about 6cm (2.5in) and will not enter a small orifice.

Major David Counsell, Tunbridge Wells, Kent

Project Barn Owl Update

This summer, the BTO in conjunction with the Hawk and Owl Trust will be evaluating the potential for an annual monitoring programme that could provide us with more information about how and why Barn Owl populations change from year to year. The proposed monitoring programme would be an extension of the Nest Record Scheme's methodology, allowing recorders to gather additional information that will greatly increase our understanding of the breeding stages.

Perhaps the most important piece of information derived from a Barn Owl Nest Record Card is the date on which the first egg hatches. Knowledge of this date gives us the age of the chicks and allows us to carry out an age-specific analysis of survival. Hatching date can be found exactly by making a large number of repeat visits to the nest, but this is undesirable because of the risk of increased disturbance. However, it is possible to predict hatching date by taking measurements of eggs or chicks and these form the basis to the extended nest recording that makes up this monitoring project.

The hatching date can be determined even before the egg has hatched by using an egg density curve. The density of an egg declines as the hatching day approaches. By measuring the eggs to find their weight, length and breadth it is possible to calculate the egg density by using a simple formula. The resulting value can be matched against a standard curve and the hatching date predicted. This technique is very useful, because it means that you only need to make a single visit once the clutch is complete to predict when the eggs will hatch. Therefore, you can time your visits more effectively.

Taking such measurements is not easy and requires the skills of trained ringers.

Through an annual monitoring programme we hope to put nest recorders in contact with local ringers (and vice versa) to gather this kind of information. There are clear benefits to all involved and we should be able to greatly increase the value of the data we have on Barn Owls.

The Barn Owl is on Schedule 1 of the Wildlife and Countryside Act 1981 and nest visits can only be made under a Schedule 1 Disturbance Licence.

Project Barn Owl is a joint project between the BTO and the HOT. It is jointly sponsored by Bayer AG, LIPHA SA, Sorex Ltd and Zeneca Agrochemicals and we are very grateful for their support.

The Nest Records Unit

Humphrey Crick (Head of Nest Records Unit) is currently analysing the methodology of the Nest Record Scheme, undertaking detailed analyses of Nest Record Cards (as part of BTO Integrated Population Monitoring studies) 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 helps with data analysis, answering data requests and edits *Nest Record News*.

David Glue (Nest Records Research Officer) is also a keen student of the weather and follows the nesting fortunes of Britain's birds through the seasons, reporting his findings in *BTO News* and elsewhere. He has a particular interest in owls, maintains the Raptor Research Register and Garden Bird Feeding Survey, and helps with the Garden BirdWatch project.

Peter Beaven (Nest Records Research Officer) helps in maintaining the collection of cards, corresponds with observers and assists with Project Barn Owl.

Mike Toms (Project Barn Owl National Coordinator) organizes the joint BTO/Hawk and Owl Trust national survey of Barn Owls, now in its final year. Part of his work involves the encouragement of more detailed recording of Barn Owl nests to provide a more systematic monitoring programme for this species.

Gavin Siriwardena (Populations Research) is currently analysing Nest Record Card, ringing and Common Birds Census data for a range of farmland bird species, principally seed-eaters. This project (in collaboration with Oxford University and funded by MAFF) aims to discover how the declines in our common farmland birds are linked to changes in breeding success and in survival.

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 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.

List of Schedule 1 species

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

NB *A rarer breeding species than these may be added to the Schedule 1 species list without warning, so if you find one, contact the BTO's Licensing Officer for clearance.*

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