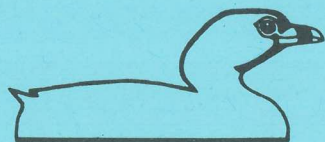


# BRISTOL ORNITHOLOGY



16

# BRISTOL ORNITHOLOGY

THE JOURNAL OF THE BRISTOL ORNITHOLOGICAL CLUB

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## PREFACE

*Bristol Ornithology*, the Bristol Ornithological Club's annual journal, holds a high reputation for its combination of scholarship with readability. No. 16 maintains that standard splendidly. Brian Rabbitts, in his meticulously researched review of the year, presents a picture of 1982 which no systematic list can rival, and Ken Hall's study of the birds of a popular Mendip recreation area will add to the knowledge and enjoyment of anyone visiting the reserves, whether for the first or for the thousandth time.

Survey reports by David Payne and Robin Prytherch, and notes ranging from Ken Simmons's detailed look at dust-bathing Wrens to Bernard King's injured Yellow Wagtails, all serve to demonstrate the wide interests and enthusiasm of Club members. On behalf of the Club, I would like to thank the editorial committee for their dedication, and the photographers and artists whose work helps to make this issue of *Bristol Ornithology* such an attractive journal.

Mike Lord

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## A REVIEW OF 1982

by Brian Rabbitts

The area covered by the review remains unchanged and consists of the County of Avon and the northern half of Somerset, south to the Bridgwater area and east to the Wiltshire border (see Fig. 1). It has been asked if this review serves any useful purpose, as after all the *Avon Bird Report* is produced by a committee including members of the Club, and the Somerset Ornithological Society also has an annual systematic list. Leaving aside any discussion on the merits of these two reports, this review merely serves to illustrate trends and more interesting observations while of course not being constrained by County boundaries. Large areas receive little or no coverage and of 118 contributors to our monthly report *Bird News* only 31 did so for six or more months. Far too many 'bird-watchers' spend their time chasing other people's birds and seem to disappear during the duller periods of the year.

Reservoirs, often referred to collectively, signify those at Barrow Gurney, Blagdon, Cheddar, Chew Valley Lake (CVL) and Durlough. The levels refer to the peat moors and heaths in the part of Somerset referred to in this review; the channel means from the Bridgwater Bay area to Severn Beach (this place name has been used to cover observations from nearby Chittening) and the Royal Portbury Dock includes St. George's and Portbury Wharves. When computing totals, especially of the scarcer passage waders, minimum numbers have generally been used. These have been arrived at by adding up the highest monthly figures in each locality except where a high count at the end of one month and the beginning of the next appears to refer to the same birds. Some 215 species occurred during the year (excluding obvious escapes) and records of rare birds (unless indicated otherwise) have been accepted by the British Birds Rarities Committee.

### The first winter period

Although the year started mild with a series of low pressure areas crossing the country, on the 8th a depression brought heavy snowfalls. High pressure then caused record low temperatures ( $-20^{\circ}\text{C}$  in many places overnight) until the 15th when depressions from the Atlantic (winds from the south and west) brought a rapid thaw. This mild weather continued for the first two weeks of February. A high pressure area then moved over Britain with easterly winds but although there were overnight frosts, with extensive cloud these were not too severe. Milder weather returned after the 24th and a succession of frontal systems from the Atlantic gave heavy rainfall and some strong west winds. An anticyclone then developed from 22 March and it became dry and warmer.

A Black-throated Diver was at CVL from 16-18 January and a Great Northern Diver was found long dead at the Brue Estuary in February. More Little Grebe than usual were on the River Avon with a maximum of seven at Keynsham (15 January) and it would be interesting to survey the population on rivers and streams as many are thought to winter along the south coast with some probably moving even farther afield to the Continent (*Brit. Birds* 75 (1982): 204-218). The population of Great Crested Grebe on the reservoirs was low (maximum of 32 at Cheddar) and with the severe weather in January small numbers were present on the coast and rivers. One or two Red-necked Grebe were at Barrow Gurney, Cheddar or CVL in January, one remaining at the last location until 20 April when it had attained summer plumage, and a Slavonian Grebe was at Cheddar on 3 February. Numbers of Cormorant at CVL did not exceed ten during this period. Two Bitterns (from Dec. 1981) stayed into January (three were seen together on 14 March with singles to the 21st) while an unusual number of reports in the first month concerned birds at Chilton Trinity, 1-7th, near Puriton, 8th (from 31 December 1981) and Durlough, 11th. Most of the variable number of Bitterns in Britain in winter are of Continental origin (*Brit. Birds* 74 (1981):1-10). The largest herd of Mute Swans (72) was on the levels on the second day of the year and Bewick's Swans (225) at Durlough on the 15th spent the entire day on the ice with smaller numbers, from the south Somerset levels, roosting until 14 February. Skeins of White-fronted Geese passed over many places during January with perhaps as many as 900 in the Parrett Estuary (reported by a wildfowler). Other geese included up to 36 Greylags (presumably feral) and two Brent, at Portishead and Stolford on 4/5 January, while one was at the Axe Estuary on 4 April.



Counts of commoner wildfowl in January included 3000 Wigeon in the Parrett Estuary and 1400 on Tealham/Tadham Moors (a staggering 22000 gathered just outside the area on Southlake Moor), just over 1000 Teal at Blagdon or CVL (518 at Barrow Gurney, and one shot at Catcott had been ringed at Texel, Holland on 14 December 1977), 1000 Pochard on Durleigh (20-40, coastal, River Avon and levels) and 130 Tufted Duck on the River Avon was exceptional (the highest reservoir count was 136). Other duck included 30 Gadwall (Emborough Pond on 5 February and only a maximum of 25 for the reservoirs), 117 Pintail (Durleigh, 13 March) and 131 Shoveler (CVL, 6 January). Goldeneye peaked at 52 (Cheddar, 23 January; see also Spring migration) and Goosander at 64 (CVL on the 1st). More frequent than usual was the regular interchange between CVL and the River Avon (a maximum of 18 with the last on 19 April) with five-nine, at Emborough Pond, Marston Bigot,

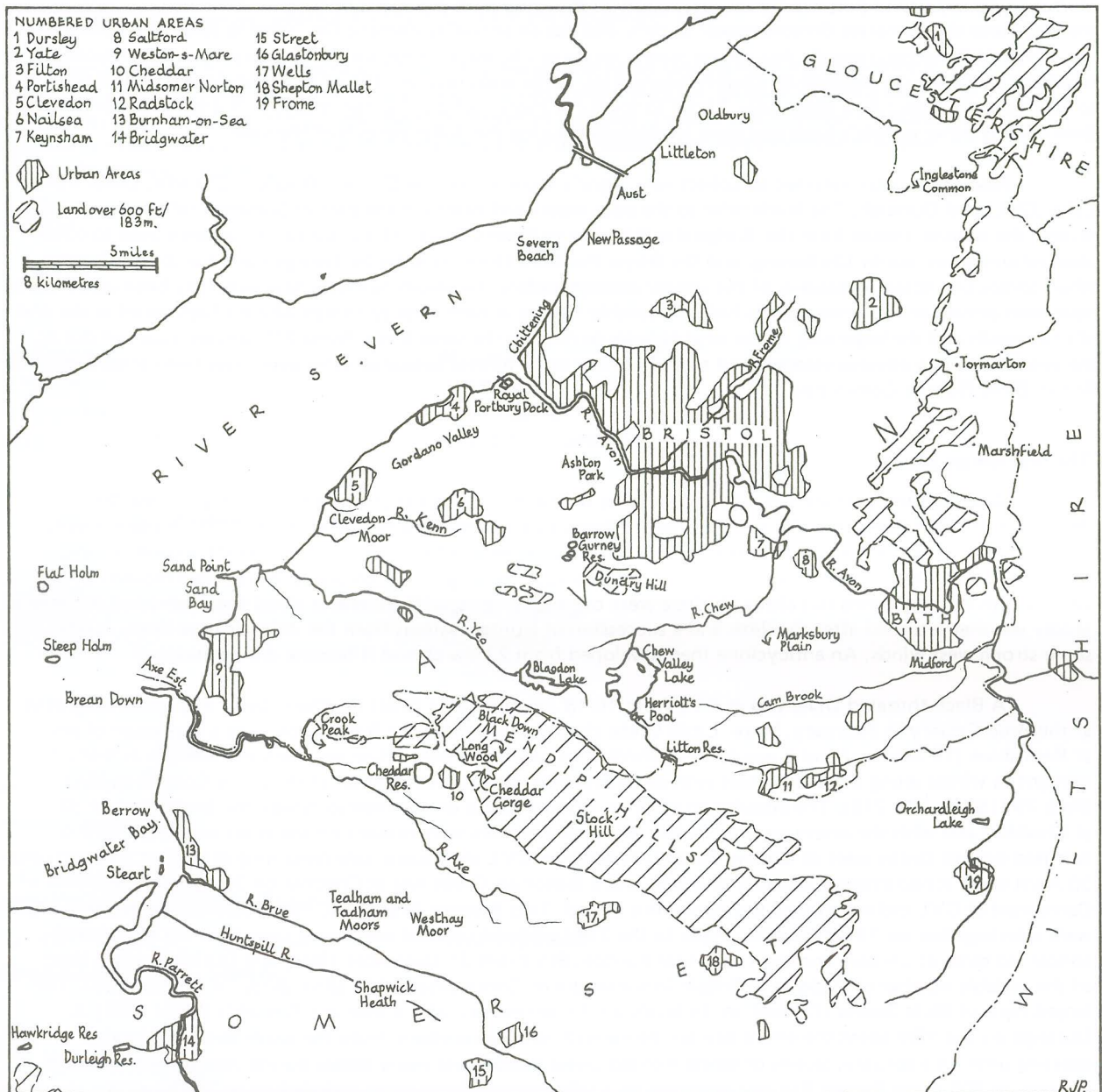


Fig. 1. Map of the area covered by the review of the year, showing main sites of ornithological interest.

Orchardleigh and Tealham Moor (1 January - 20 March). Although there were 505 Ruddy Duck at CVL on 4 January most were forced to disperse (100 at Cheddar on the 17th) but this was only for a brief period as 408 had returned by 3 February (see *Brit. Birds* 75 (1982): 1-11 on their movements during the hard winter of 1978/79). Scarcer species were Red-crested Pochard at Cheddar on 17 January and the River Avon, Bristol on the following day, both being perhaps of suspect origin; a hybrid believed to be of this species and Pochard at Blagdon; several *aythya* hybrids including a Pochard and Ferruginous Duck ('Paget's Pochard') at Hawkridge; Scaup at Barrow Gurney and Durleigh to 28 January; a Long-tailed Duck at Cheddar (from 16 October 1981) staying until 6 February; two Common Scoter in the Channel (27 February - 1 March); two Smew at CVL 23 - 27 February (one was on Tealham Moor on 23 January) while two Red-breasted Mergansers at Emborough Pond on 27 January were most unusual (the individual at CVL, from 31 October 1981 was last seen on 20 February).

Hen Harriers (perhaps six birds including two males) were at seven places during January but only at the Parrett Estuary in February; several sightings of Merlin were made here (six other places) and also Peregrine (five others). Up to five Water Rails occurred at Berrow. Coot at Cheddar numbered 2500 on 15 January and other counts included a maximum of 35 at the Brue Estuary. Of the waders Oystercatcher reached 157 at Berrow during March (up to four at Cheddar), Ringed Plover 40 - 50 at the Axe and Brue Estuaries during January (two inland records, 13 - 28 February), Golden Plover 1200 at Tealham/Tadham Moors on 2 January (up to 90 involved in weather movements and most had departed from the area by February) and Grey Plover 264 in the Parrett Estuary during March. Exceptionally large numbers of Lapwing occurred here (thousands seen moving south) and at Berrow (20000 along the shore and 2000 south) from 7 - 9 January; Dunlin, perhaps as many as 16500, were in the Parrett Estuary during the same month (650 on Tealham/Tadham Moors on the 2nd but few otherwise inland, although reasonable numbers continued on the south Somerset levels during the remainder of this period). Other counts included 70 - 180 Snipe on the Levels and coast January - March; 576 Curlew in the Parrett Estuary February - March (12 on Tealham Moor on 4 January) and 528 Redshank (February). Over-wintering and other scarcer waders were seven Purple Sandpipers (one close to the M5 at the East Brent Picnic Area on 24 January was most unusual); only four Ruff; 17 Jack Snipe (nine at Berrow with the last on 12 April); 22 Woodcock (eight near Wells during January); 30 Black-tailed Godwits in the Parrett Estuary on the 28th; a maximum of 62 Bar-tailed Godwits at the same location (4 February); five Spotted Redshank; 29 Green Sandpipers with 14 in January and nine in March and Common Sandpipers at Barrow Gurney, CVL and the River Avon.

Interesting gulls at CVL were two or three Mediterranean from 6 January - 26 March (one at Compton Martin on 21 February was probably one of these while one was near Wells on 1 January), Little on 14 February (another was at Tealham/Tadham Moors on 2 January), two or three Ring-billed, 2/3 January and 14 - 25 March (although not recorded in this country until 1973 this North American bird is now being regularly identified) and a yellow-legged Herring from 6 - 10 February probably of the Mediterranean race *L. a. michahellis*. Although it can be difficult to differentiate between the various races and, because of considerable variation, often impossible, it has now been established that *michahellis* (and possibly *cachinnans*) is regularly reaching southern Britain (see *Brit. Birds* 74 (1981): 349 - 353 and 76 (1983): 191 - 194). A Common Gull found long dead at Keynsham during January had been ringed as a three year old on 4 May 1973 at Matsalu Reserve, Estonia, USSR. Two Lesser Black-backed Gulls off Berrow on 10 January were thought to have been of the Scandinavian race *L. f. fuscus*; despite large numbers at CVL during the springs of 1965/66 this race continues to be infrequently reported. A Kittiwake was over the M5 near Portbury on the 29th while a Guillemot at Portishead on the 26th may have been the same bird rescued at Severn Beach five days later (previously ringed and released by the RSPCA).

The largest flock of Stock Doves (454) was at Old Sodbury on 14 February. Short-eared Owls were at three coastal sites (until 12 February with a maximum of six in the Parrett Estuary) with singles at CVL (2 January), Royal Portbury Dock (perhaps two, 27 March - 8 April) and Shapwick Heath (12 April). There was a southward movement of many species at Berrow and the Brue Estuary on 8 January including 800 Skylarks, 40 Blackbirds (124 two days later and singles in the channel being pursued by Herring Gulls), 1500 Fieldfares per hour (many occurred in gardens with the last on 8 May) and some 2500 Redwing (low numbers for the remainder of this period to 11 April). A Shore Lark was at Stolford on 5 January, one or two Water Pipits *A. s. spinoletta* at the reservoirs (to 10 April) and a Waxwing at Westonzoyland from 13 - 15 January. On the 10th no less than 47 Blackcaps were reported in Avon; weekly totals remained high during February but fell



sharply at the beginning of March (*Overwintering Warblers 1981/2 winter* unpublished report) while in contrast few Chiffchaffs appear to have survived. A Firecrest at Keynsham on 9 January was the only one, two Ravens at Brean Down on 25 February did not stay (last bred successfully here in 1972) and by far the highest number of Tree Sparrows (80) occurred at Oldbury-upon-Severn on 28 January. Brambling during this month included 110 at Old Sodbury and in nine gardens (recorded to 13 April, Leigh Woods and a Nailsea garden), while there were 50 - 100 Siskins at seven locations (last on 15 April). Seven-ten Twite occurred at Portishead, a regular winter haunt since 1977, from 18 January - 13 March (although wintering mainly along the east coast, since at least 1948 has occurred at one site in Midland England, *Brit. Birds* 76 (1983):90). Redpoll were generally scarce. A Snow Bunting at Black Down on 18 March was unusual, although one wonders how many pass through on Mendip (three were at Steart on 12 January); one or two Gull Buntings were near Cheddar from 11 - 23 January and one or two Corn Buntings occurred at the Brue Estuary from 4 - 24 February.

### Spring migration

April was mainly dry and settled and although there were some warm days during the first week, high pressure became established to the west with cooler winds from the north. On 10 May a southerly airstream brought warmer weather; from the 18th however it became unsettled until the end of the month when the warm southerlies had returned. An anticyclone to the east kept it warm and dry for the first week of June until the high pressure moved north, enabling slow-moving fronts to cross from the west with some heavy thunder-storms.

A diver, not specifically identified, was near Brean Down on 1 May. The first Fulmar appeared on 25 February and they were regularly reported in the Channel (mainly off Brean Down) until 28 May; one found dead at Berrow on 14 March had been ringed as a nestling on the Isle of Canna, Scotland, on 17 August 1974. Parties of Manx Shearwaters (10 - 13) occurred during May off Brean Down and Sand Point. Duck included three Garganey at CVL 26/27 March (single birds at Durleigh, Westhay Heath and Woolavington, 4 April - 18 May), Tufted Duck peaked at 385 on 25 April, a Scaup was at Durleigh from 27 March - 1 April, and three Common Scoter occurred inland during April (7 - 15th, with one being on the River Avon at Saltford). There was a record count (118) of Goldeneye at CVL on the 10th and Red-breasted Mergansers were seen at Shapwick from 24 - 27 May and off Portishead on the 29th. Apart from Hen Harriers at Shapwick on 12 April and off Portishead, flying up-channel, on 13 May no other unusual birds-of-prey were reported.

A Corncrake was seen and heard near Brent Knoll on 10 May; they are no longer reported annually and were last proved to have bred in Somerset during 1964. The maximum count of Oystercatchers was 186 at Steart in April (inland records included four at Cheddar on 4 March and two over Knowle, Bristol on 17 May) and of Ringed Plover, 100 at Berrow (8th) and near Oldbury-upon-Severn (21st). After 150 Golden Plover occurred at Marksbury from 7 - 13 March few passed through during April, Knot were scarce (the last on 19 May was in summer plumage) while Sanderling numbers (a maximum of 42) at Berrow were low (up to three at the reservoirs 12 - 31 May). Dunlin reached 1000 at Berrow on the 8th (32 inland, 29 March - 31 May), Bar-tailed Godwits 51 at Clevedon on 27 April and Whimbrel (first on the 11th) 507-884 at the roost in the Parrett Estuary 25th - 5 May (lower counts than those made in the previous two springs). Common Sandpipers (152) passed through (11 April - 3 June) with 34 at Cheddar on 24 April and Turnstone numbered 78 in the Brue Estuary on the 11th (five at Cheddar on 11 May). Scarcer waders were seven Little Ringed Plover, 5 April - 16 May; a Ruff at CVL on 17 April and Cheddar, 12 May; 15 Black-tailed Godwits in the Parrett Estuary, 29 April - 7 May; three Spotted Redshank here during April; 16 Greenshank (a good passage), 22 April - 31 May including four at Cheddar on the 12th, and seven Green Sandpipers in April.

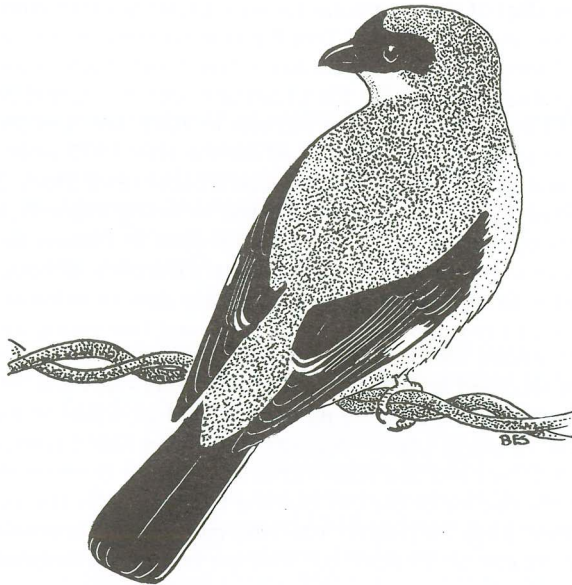
Skuas in the Channel between Sand Point and the Parrett Estuary were a Pomarine (3 May), three Arctic (28 April - 1 May) and four Great (1 - 23rd). Of some 45 Little Gulls (16 March - 27 May) the majority passed through during April. Counts of other gulls included groups of first-summer Black-headed at Cheddar (120, in the second half of this month), CVL (120, 8 May) and Portishead (69 flew north-east on the 12th) while a regular roost flight of some 250 Lesser Black-backed took place at the first locality during April. A 'Kumlien's Gull' was identified at CVL on the 16th (record still pending). Originating from Arctic north-east Canada this gull is variously considered to be a subspecies of Iceland Gull *L.g. kumlieni*, a hybrid population of Iceland x 'Thayer's Gull' *L. thayeri*, or a separate species *L. kumlieni* (see *Brit. Birds* 74 (1981): 363 - 394). Out of 246 Kittiwakes 201 were off Brean Down (61, 3 - 17 March and 100, 1 May) and 22 inland (18 at



CVL on 13 April). Common/Arctic Terns (90) passed through from 4 April to 1 June (46, May 11/12) and of those specifically identified 45 were Common and 15 Arctic (13 at CVL on 14 April). Other terns were only one Sandwich (3 May), four Little (3 - 21st) and 27 Black (21 April - 15 May with all but three being on the 11th). Guillemots were found dead in April and May at Berrow.

There was a small movement (23) of Collared Dove at Brean Down from 5 - 19 April and Swift (first on the 24th) near Wells on 3 May when several hundred flew north (two days later an estimate of 5000 was made at CVL). Summer visitors to arrive in March included Sand Martin on 13th (250 - 300 at the reservoirs, 6 April - 3 May with a passage of 71 at Portishead on the 12th); Swallow on 24th (1000 at Durleigh, 3 May and 1159 during a four and a half hour watch at Portishead on the 12th); House Martin on 30th; Tree Pipit on the same day (the highest coastal count was 15 at Brean Down on 5 April); Wheatear on 21st (three near Stockwood, Bristol on 28 April were probably *O. o. leucorroha* but they can be quite difficult to identify); Blackcap (most however appeared to be wintering birds); Chiffchaff (widespread from the 19th) and Willow Warbler on 28th (65 at Brean Down on 5 April). There was a steady passage of White Wagtails *M. a. alba* (95) from 5 April - 12 May with the largest counts (14 - 18) at Cheddar, CVL and West Huntspill (24 April - 12 May). A count of 29 Goldcrests at Sand Point on 4 April obviously included many migrants, six Jays flew over high up on the 25th and ten Reed Buntings at Cheddar (20 - 31 March) were perhaps returning birds. Scarcer species (or races) were a Hoopoe at Uphill on 11 April; Blue-headed Wagtails *M. f. flava* at Steart on 2 May and at the Royal Portbury Dock (in song) on the 22nd; four Black Redstarts, 27 March - 18 April; eight Ring Ouzels at Brean Down and six at Sand Point on the 4th (another was near Stockwood two days later); Wood Warblers at Brean and Weston-super-Mare on 11 May (several others about this time were in possible breeding habitats); a Firecrest at Vineyards Brake on 26 March and seven Pied Flycatchers, 12 April - 10 May. A Lesser Grey Shrike (south and east Europe and south-west Asia) was somewhat off-course at the Royal Portbury Dock on 15 May. Although still very much a rarity two recent occurrences (1977 and 80) have been in Somerset.

Lesser Grey Shrike



#### Selected breeding species

Little Grebe at CVL reared 14 young (11 broods) and Great Crested Grebe 56 (31 broods); four on the Huntspill River on 20 May were perhaps non-breeders. Of some heronries Tadhams Moor held 54 occupied (or probably occupied) nests and Purchase Copse 21. Mute Swans were successful at 12 sites on the Levels, at Blagdon (11 young in five broods) and at CVL (27 in six broods) although at least seven cygnets and three adults later fell prey to Foxes. It was not a good season for many species here (there was an abrupt drop in the water level during May) but surface-feeding duck fared reasonably well. Canada Geese had 37 young in eight broods (single broods at Blagdon and Chilton Trinity), Shelduck 16, in two broods (only three or four eventually fledged), Gadwall 132 (15 broods), Mallard 305 (40 broods), Shoveler five (two broods), Tufted Duck 22 (six broods; another



brood of five was at Hawkridge Reservoir) and Coot, at least 96 (41 broods). Although three pairs of Garganey plus an additional male were present during the spring, the pair that remained into early June appear to have been disturbed by fishermen while both Pochard and Ruddy Duck failed to bring off young. Several Teal were on the Levels (May - July). Birds-of-prey in Avon included Sparrowhawk, Buzzard and Kestrel (results of the Club Survey are on pages 42 - 43). Goshawks (a pair appeared briefly just outside the area) perhaps remain undiscovered. The present population breeding in Britain is thought to have originated from released birds or falconers' escapes (*Brit. Birds* 75 (1982): 243-260). In a good year about 150 breeding pairs of Hobby are estimated in England (*Brit. Birds* 73 (1980): 275-295) and although reported from the end of April at many places, only at one site were observations made with any regularity. Peregrines (no record of breeding since the 1950's) lingered on well into May. Red-legged Partridge were noted at some 26 places throughout the year, Grey Partridge at 31, a Quail was calling near Faulkland on 31 May while Water Rails were at Berrow, CVL, Huntworth and Westhay Heath between 3 April and 1 July. Waders included an Oystercatcher with one chick at Steart, 14 displaying Snipe over Tealham/Tadham Moors, four Curlew near Witham Friary and on Queen's Sedge Moor (possibly as many as eight here) and two pairs of Redshank were successful on Tealham Moor. During the summer 130 young Lesser Black-backed and Herring Gulls were colour ringed in Bristol. A programme of gull control at Bridgwater and Burnham-on-Sea during 1981 - 83 has resulted in the systematic destruction of nests and eggs of Herring Gulls at Burnham: 87 (118), 77 (76) and 26 (64) respectively for these three seasons (*Weston Mercury*, 9 September 1983).

Stock Doves were present at 15 sites in the Wells area during April. Barn Owls (only 20 sites throughout the year) included several road casualties on the M5 Motorway; one of these near Clevedon on 30 March had been ringed as a nestling at Yarcombe on 20 July 1981 as part of a nestbox project in east Devon (see *Devon Birds* 36 (1983): 37-40). Nightjars retain a tenuous existence on the Levels despite loss of habitat due to peat extraction; a recent study (*Brit. Birds* 74 (1981): 161-169) suggested that the Nightjar could be susceptible to climatic deterioration. Kingfishers were seen at 29 sites during the year; although there was a large drop recorded during 1981-82 (*Bird Study* 30 (1983): 121-126) they are particularly vulnerable to hard winters and the population was high in 1974 (the start of this particular survey). Lesser Spotted Woodpeckers were noted at only 16 places in 1982. Passerine summer visitors included Tree Pipits at six sites on the Levels and at least 14 pairs of Yellow Wagtail on Tealham/Tadham Moors (12 families in late June). Nightingales were much in evidence during May; Redstarts have all but disappeared from the Levels although the upland population is probably faring better (the Common Birds Census showed a significant increase in 1982; see *Bird Study* 30 (1983): 127 - 133); Grasshopper Warblers showed no change: there was a marked decline after 1972 when located at 40 localities in the old county of Somerset and this is well shown in a recent paper (*Bird Study* 30 (1983): 143 - 148). There were 22 Whitethroats at Brean Down on 9 May, doubtless including migrants, and Wood Warblers occurred at seven possible breeding sites during this month. A ringing project of Dippers south of Bath discovered them at 12 places in April and later 15 young successfully fledged. Cetti's Warblers, although continuing to extend their range (first proved to breed in Britain during 1972), have been slow to colonise Somerset; in the Bridgwater area two pairs were ringed, one pair re-trapped (ringed in 1981) and two young were seen. A singing Firecrest discovered in mid-April was still present on 11 June and hybridisation with a Goldcrest was suspected; two possible instances of this happening are recorded in *Brit. Birds* 69 (1976): 447 - 451 and 76 (1983): 233-234. Willow Tits were at five sites (April - June) including a family party at Stock Hill, a pair of Ravens nested in north Avon and Tree Sparrows were seen at 12 places (April - August) with 7 - 14 near Laverton, Witham Friary and Winterbourne. Redpoll bred at Black Down and two Hawfinches with two or three young were seen at one locality on 16 May. The main reason for the decline of the Cirl Bunting is perhaps climatic and 30 - 40 pairs were estimated in Somerset 1968-72 (*Brit. Birds* 75 (1982): 105-108) compared to approximately 17 during 1982. Six Corn Buntings occurred at Yoxter on 27 April but they are far more widespread in the Marshfield and Tormarton area (53 singing during July).

#### Other mid summer observations

Sea-birds in the Channel (Sand Point on 19 June and Brean Down on the 27th) included Fulmar (14 and four), Manx Shearwater (363 and 180) and Gannet (23 and 13). Two Grey Herons off Brean Down on 3 July took 13 minutes to fly the three miles to Steep Holm. Canada Geese numbered 113 at CVL on the 17th while 40 flew south-west at Berrow on the 21st. A Ruddy Shelduck appeared at CVL the previous day and remained into December; the evidence in a recent paper suggests that no record in Britain during the past 50 years can with certainty relate to individuals of wild origin (*Brit. Birds* 75 (1982): 446-455). Wildfowl in June included



1261 Shelduck and 550 Mallard at Steart while at CVL on the 12th were two Wigeon, 35 (31 male) Shoveler, 79 (mostly moulting male) Pochard and 150 Tufted Ducks. *Aythya* hybrids continued to be reported, a Scaup was at Barrow Gurney on 24 July (bill tip adequately described) and a Ruddy Duck at Cheddar on the 20th. A Crane flew up-channel off Sand Point on 27 June (record still pending). The seasonal divisions used in this review are of course quite arbitrary and doubtless many of the following wading birds were early/late migrants rather than birds spending the entire summer in the area. Records during June (Berrow or Steart unless indicated otherwise) included 100 Oystercatcher, two Avocets (on the 9th feeding with Black-headed Gulls), ten Grey Plover, 288 Curlew, two Redshank (at CVL from the 12th, probably referring to local breeding birds), one Greenshank (21st), seven Green Sandpipers (on the Levels, 19 - 27th) and 20 Turnstones. Post-breeding flocks of Lapwing included 1000 at Queen's Sedge Moor on 24 July. An Arctic Skua was off Brean Down on 29 June and nine Kittiwakes off Sand Point on the 19th. Terns at CVL in the same month were a Common on the 20th and two Black on the 17th with one on the 26th. Concentrations of Swifts here included 3000 on the 12th and 3 July (2000 at Durleigh the following day). A Crossbill stopped briefly at Winscombe on 17 June.

RJP

Swifts

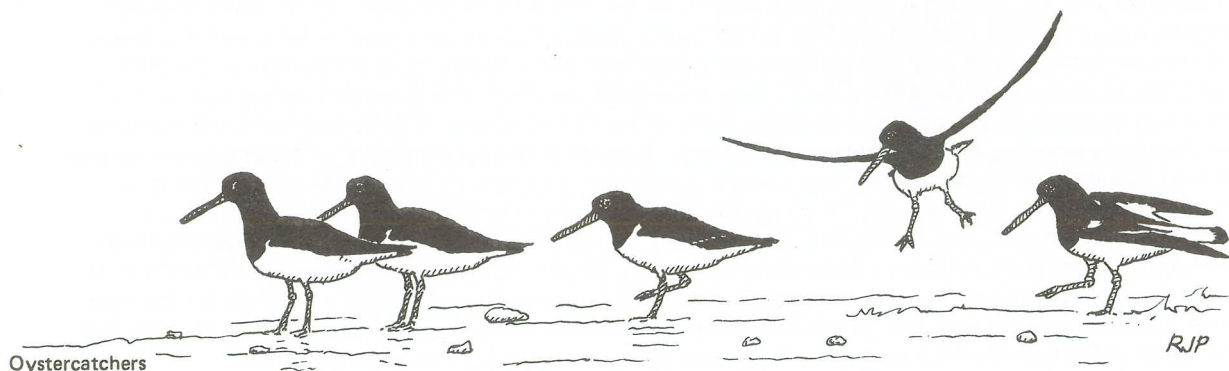


### Autumn migration

July commenced with cool north-west winds but high pressure over the Continent brought warm humid air with some thunderstorms. Winds were mainly north-east with an anticyclone in the third week but became more northerly as the high pressure moved west. This system remained well into August and it was generally warm. More unsettled weather followed with a westerly airstream until 10 September when it became warm and sunny (winds mainly from the south). This high, however, had declined by the 20th and there followed some strong south or south-west winds with periods of rain. October was dominated by almost continuous Atlantic depressions with frequent fronts that made it a very wet month. There were some fine days from the 22nd as the weather became more anticyclonic.

There was a count of 76 Little Grebe at CVL on 31 August, 460 Great Crested Grebe five days earlier with 480 on 19 September (43 at Barrow Gurney during this month) and two Black-necked Grebe from 31 July - 7 August (another 4 - 14 September and one at Blagdon 29 July, 13 August). Sea-birds in the Channel included one or two Fulmars (2 - 21st), single Manx Shearwaters (31st and 1 September), a Storm Petrel (18th), two-four Gannets (3 July - 18 September; another was found in a field at Hornblotton on the 30th) and a Shag (20 August). A Spoonbill in the Parrett Estuary, from 18 - 22 October had perhaps moved to the Axe Estuary, where one was seen from 7 - 13 November. Shelduck numbered around 1340 at Steart during July and August; there was a notable passage of juveniles through Cheddar or CVL between the 9th and 29th (32 on the 21st). Some other surface-feeding duck at CVL included 285 Gadwall (21st), 850 Teal (11 September), 1900 Mallard (also on the 11th; 1600 from the end of July) and 12 Garganey (15 August; passage from 21 July - 25 September with up to five at Blagdon). Diving duck included two Red-crested Pochard at Cheddar (14th - 4 October; at times accompanied by a hybrid of this species and Mallard), 410-585 Tufted Duck at Blagdon and CVL (22 July - 26 August), five Common Scoter in the Channel (7 - 14th; there was another on 26 September) and one or two Red-breasted Mergansers in the Parrett Estuary (18 - 22 October) while one at the Royal Portbury Dock had a lengthy stay (18 July - 21 September). Rare raptors were Red Kite at Steart on 31 October, Montagu's Harrier near Marshfield on 3 August, and Ospreys at Blagdon on 26 July, CVL from 24th (two the next day) to 3 August and again at CVL on 22 September. Another was seen flying to the south-west over Keynsham on 25 August while the last Hobby was at Cheddar on 3/4 October.





Oystercatchers

Of the commoner waders Oystercatcher numbered 377 at Steart on 7 August (up to five at the reservoirs), Ringed Plover 420 at Berrow on the 24th (153 inland, 17 July - 22 October with all but 16 being at CVL including 55 on 27 August), Sanderling 110 at Berrow 24 July - 7 August (three singles inland) while Dunlin had a good passage through the reservoirs (216, 6 July - 25 October). In the Parrett Estuary Black-tailed Godwit numbers remained low (186 on 25 July; up to four at CVL and Durleigh), Bar-tailed Godwit compared well with counts made in recent autumns (93 on 29 September; seven at CVL on the 12th), Curlew peaked at about 1000 (4 - 7 October) and Redshank at 750 (19 September). A small number of other species, usually associated with coastal habitat, occurred inland including several Grey Plover, 15 - 17 Knot (CVL, 30 August and 2 October) and one or two Turnstone. Other passage waders included 24 Little Ringed Plover from 3 July - 5 October; only 20 Little Stints from 7 September - 23 October; 102 Curlew Sandpipers 29 August - 17 October (81 in September with 21 - 30 at Berrow and CVL); 71 Ruff 18 July - 26 October (12 at CVL on 13 September); 161 Whimbrel 10 July - 7 October (108 in August); 77 Spotted Redshank 22 July - 31 October (just under half during September); 83 Greenshank 9 July - 18 October (14 at CVL on 11 September); 114 Green Sandpipers 3 July - 31 October (10 - 15 at CVL, Royal Portbury Dock and Westhay Moor); 14 Wood Sandpipers 18 July - 27 September (all but four during August) and 215 Common Sandpipers 29 June - 26 October (81 in July and 109 in August including 31 at CVL on the 7th). Rare waders at CVL were a Pectoral Sandpiper from 14 - 18 September (two until the 29th and one was in the Parrett Estuary on the following day), a Marsh Sandpiper on 3/4 October (later at Blagdon to the 12th; a first record for Avon of a bird that originates from south-east Europe and west and east Asia) and a Spotted Sandpiper on 10 - 13th (see *Brit. Birds* 70 (1977): 346 - 348 on identification of this species). A Red-necked Phalarope was at Steart on 22 August (rarely observed on migration) while Grey Phalaropes turned up at the Brue Estuary from 27 - 29 September, at CVL on the last day (probably two) and Cheddar on 19 - 28 October.

Of 16 Arctic Skuas (2 August - 18 October) half occurred inland including three adults at Barrow Gurney on 11 September being observed later that day at CVL. A Long-tailed Skua was identified here on 10 August and a Great Skua on 16/17 October (another was off Brean Down on 20 August). Some more unusual gulls at the reservoirs (mainly CVL) were five Mediterranean (apart from one on 26 July, all from 29 August - 26 September), ten Little (another on the coast, 17 July - 18 October), an adult Sabine's to roost from 12 - 20 September (very unusual as away from the breeding grounds it is almost totally pelagic with occasional records being usually associated with westerly gales, see *Brit. Birds* 74 (1981): 125-133) and yellow-legged Herring *L.a. michahellis* on 22 July and 9 September. Juvenile Kittiwakes turned up at Cheddar or CVL, 19 - 22 August and 7 - 24 September. There was a good passage of both Common Terns (184) from 3 July until two late birds during November last seen on the 28th (60 at CVL on 29 August) and Arctic (40) 15th - 23rd October (31 - record numbers - at CVL 28 September - 1 October). Black Terns (106) from 23 July to 6 October (68, 5 - 21 September) were scarce in August. Other terns concerned 15 Sandwich (11 July - 22 October), 12 Little (all but two being in the Parrett Estuary, 2 August - 17 October) and three White-winged Black at CVL (summer plumage, 20 July; winter, 18 September; and a juvenile, 20/21st).

Scarce passerine birds included a Tawny Pipit at CVL on 2 October, two White Wagtails *M. a. alba* on 9 September (not really unusual but more difficult to identify during the autumn), a Greenland Wheatear



Plate 1. Two common but not plentiful species in the Bristol area. Right, Buzzard *Buteo buteo* is a resident and is at present being surveyed over a five year period (see pages 42 - 44) (photo: Robin Williams). Below, Wood Sandpiper *Tringa glareola* is mainly an autumn migrant. 1982 saw a return to a more usual pattern of occurrence after four years when it was scarce. This photograph shows the elegance and poise of this attractive wader particularly well (photo: Brian Thomas).

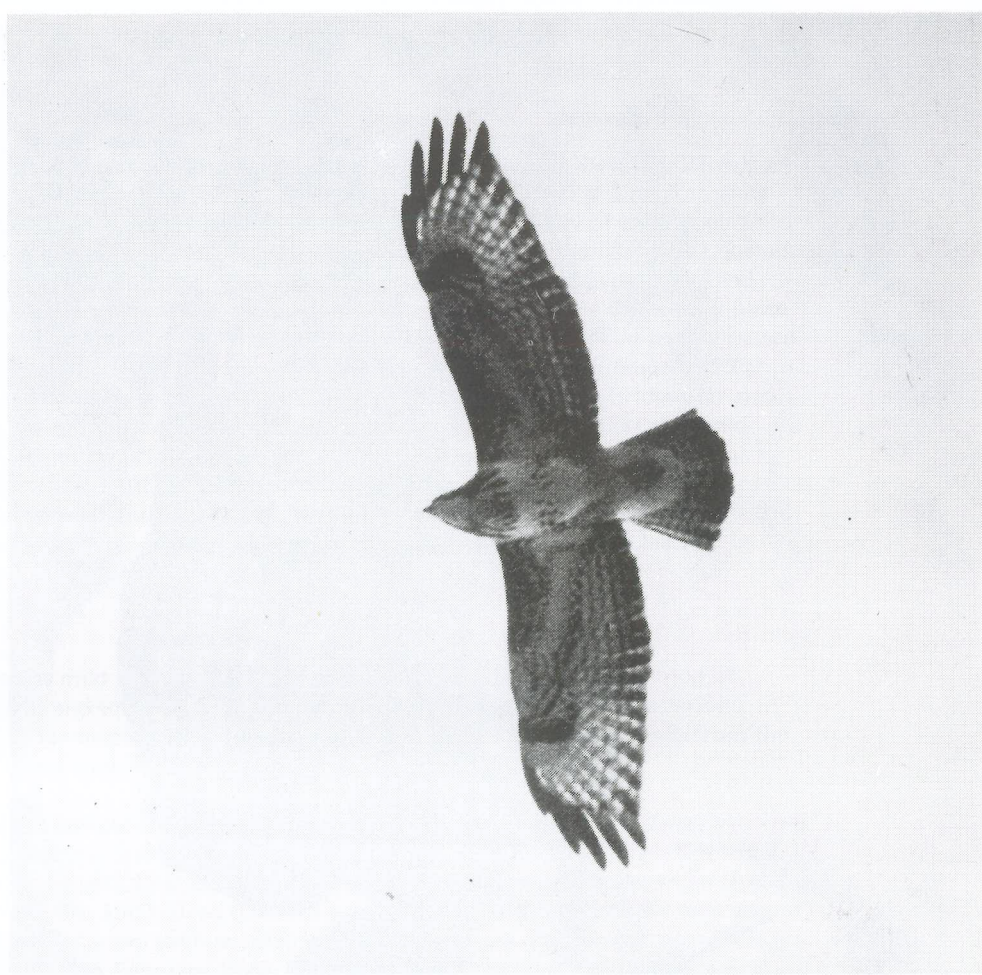






Plate 2. Lapwings *Vanellus vanellus* in Avon were the subject of a special Club survey from 1980 - 81 (see pages 35 - 37). Nearly 280 pairs were discovered during this period (photo: Robin Williams).



*O.p. leucorrhoea* three days later (hard to separate on both passages), Aquatic Warblers at Steart 26/27 August (both trapped), three Pied Flycatchers, a Great Grey Shrike at Yoxter on 23 October and at Draycott some days later. A Crossbill flew south at Berrow on the 24th while Corn Buntings (presumably of local origin) were also here and at Clevedon and Saltford (3rd - 2 November). Some estimates of hirundines at CVL included 1000 Sand Martins (24 July; exceptional for this date), 1000 Swallows (roosted until mid-September) and 5000 House Martins (15 August and 24 September). The usual small coastal passage of Tree Pipits took place during August and September (most on any one day being eight), a trickle of Grey Wagtails (up to ten) passed south, Redstarts (18 July - 12 September) occurred at 11 places and Wheatear were well represented (23 at Stolford on 26 September). 430 Sedge Warblers and 358 Reed Warblers were trapped in the Bridgwater area. A Nuthatch was unusual at CVL on 7 August although presumably originating from not too far away and a Raven was seen in July, August and October. Visible migration during this month, mainly over Berrow, Clevedon or Keynsham on the 24th, included 196 Woodpigeon, 126 Skylarks, 15 Tree Sparrows, 1337 Chaffinch, 17 Brambling and 862 Greenfinch. Siskin and Redpoll (apart from 45 at Westhay Moor on the 3rd) were fairly scarce. Late migrants during November were Swallow (3rd), House Martin (24th; at least 17 in this month) and Wheatear (11 - 13th). A Whinchat on 3 December was very late.

### The second winter period

The first part of November was mild (south winds) but became cooler on the 13th. A period of wet westerlies followed (until the 27th) and there were several hard frosts to the beginning of December. Unsettled conditions quickly returned for much of the remainder of this month (some strong winds from the west quarter and wet days); temperatures were near average although becoming mild at the end.

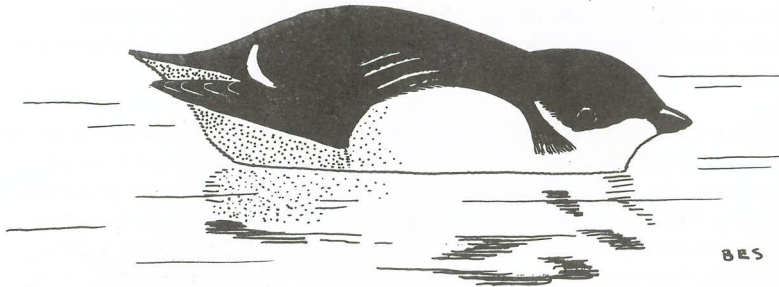
A Great Northern Diver was at Barrow Gurney during 10 - 24 November; unidentified divers occurred in the Parrett Estuary on the 11th (probably Great Northern) and off Berrow six days later. Great Crested Grebe numbered 383 at CVL in the first week, 41 at Barrow Gurney on 29 December and a Slavonian Grebe here (from the 4th) remained to 17 January 1983. Dead sea-birds were a Fulmar and two Gannets (one was seen alive, off Burnham on 9 November). Cormorant numbers at CVL remained low (12 - 13) while a Bittern on 9 December was sighted infrequently into February 1983. 85 - 105 Mute Swans were on the Levels or at Cheddar (possibly the same herd); colour-ringed birds reported had been trapped at Abbotsbury or Weymouth, Dorset mostly as moulting adults in the summer and while a proportion remain for the winter, others return north during the autumn (M.A. Ogilvie *in litt.*). The first Bewick's Swans arrived on 24 October and roosted on Durleigh from the last week of November (100 by mid-December). White-fronted Geese appeared during this month with 32 in the Parrett Estuary and ten at CVL. Other geese included a Pink-foot at Cheddar on 25 September, ten Greylag (presumably feral) in the Parrett Estuary on 7 November and three Brent on the 19th (also singles 5 - 7 October, 4 December and at CVL, 25 - 27th). Shelduck reached 2000 in the Parrett Estuary at the beginning of October (a long-staying individual was inland at Barrow Gurney) and Wigeon 972 in November (435 at CVL on 11 December). A Mandarin (in category C, the same as Ruddy Duck) on 11 September was the fifth record for CVL but two turned up during November. Other surface feeding duck here (on 11 December) included 59 Gadwall, 1035 Teal and 820 Mallard. Of diving duck Pochard peaked at 800 at Cheddar, Goldeneye at 44 (December; first at CVL on 14 August), Goosander at 33 (an early record on 6 September and one or two were in the Parrett Estuary 16 October, 19 November) and Ruddy Duck at 504 (also during December at CVL; 430 on the 11th had increased to 491 the next day). Scarcer species were Scaup at Barrow Gurney and Cheddar (three on 25 December); three Eider in the Parrett Estuary 4/5th (one earlier on 11 November), five Long-tailed Duck (from 7 November included birds at Severn Beach and Portishead; this last remained to the exceptional date of 19 June 1983); eight Common Scoter in the Channel (November; another was at CVL on 29 December); Smew (the previous day) and six Red-breasted Mergansers (7 November - 8 December, coast, Levels and reservoirs).

Birds-of-prey included only three Hen Harriers (29/30 October, 2 December), at least two Sparrowhawks in attendance on the Starling roost at Temple Meads, Bristol during November, Merlins (from 12 September) at nine places and Peregrines at ten, both occurring regularly in the Parrett Estuary. Up to six Water Rails were at Berrow and CVL while Coot had reached 2100 at Cheddar by 25 September (2450 during December). Of the waders Ringed Plover numbered 50 - 62 at three sites (three singles at the reservoirs, 12 - 15 November), Golden Plover 745 on Tealham/Tadharn Moors (December), Lapwing 4300 (an albino was at Keynsham), Knot 650-690



at the Axe and Parrett Estuaries (4 - 11th), Dunlin 9000 in the last locality (November; up to 170 inland), Curlew 533 (December), Redshank 630 (November) while Turnstone, 120 at Severn Beach, were reduced from October levels. Scarcer wintering waders were nine Avocets in the Parrett Estuary and one at the Axe Estuary on 4 December (we have to go back as far as 1973 for a comparable number); four Sanderling; up to six Purple Sandpipers at Severn Beach (one at the Brue Estuary on 30 October was unusual); no wintering Ruff; 24 Jack Snipe (from the 16th and up to eight at Berrow); 13 Woodcock (nine near Marksby reported by a person on a shoot; probably the only way to obtain a more accurate assessment); only two Black-tailed Godwits; one Bar-tailed Godwit (usually around 20 in this period); 16 Spotted Redshank; nine Green Sandpipers in November, four in December and a Common Sandpiper at CVL (from the 4th). A Grey Phalarope (juvenile) was at Cheddar on 19 November followed by an adult, from 24 - 29th.

Although very rare at this time of the year the occasional Great Skua sometimes turns up: there was one in the Parrett Estuary on 20 December. Scarcer gulls were some ten Mediterranean (four, probably five at CVL), nine Little (eight, 6 - 21 November) and two first-winter Glaucous (off Brean Down on 10 December and in the Parrett Estuary on the 20th). Of 72 Kittiwakes (two inland) from 22 October - 22 December 37 occurred on 19 November and 25 on 20 December (strong west winds on both days). A Guillemot was at Severn Beach on the



Little Auk

21st and a Little Auk at Cheddar on 20 November (one of several storm-blown in the west). 200 - 400 Stock Doves were reported from CVL, Old Sodbury and Severn Beach. A Long-eared Owl was on Kenn Moor for much of December; a useful identification feature is the trailing edge of the wing: in Short-eared all remiges but the outer primaries are tipped very pale buff or whitish, forming a clear pale band on the trailing edge of the upperwing (see *Brit. Birds* 75 (1982): 227-229). The first Short-eared was on 20 September, and many came in during October; of 23 during this period (five in the Parrett Estuary) two were cared for throughout the winter (less fortunate was another that later died, reported in the *Weston Mercury*, 19 November 1982). Rock Pipits (*A. s. petrosus*) were inland during October (up to three) and there were one or two *spinoletta* (Water Pipit) to the end of the year (at least one on the coast). Black Redstarts (from 31 October) numbered nine or ten (November and December) while both Fieldfare and Redwing, apart from 612 south over Keynsham on 24 October, were scarce. The relatively mild weather however favoured wintering warblers with three Cetti's, 29 Blackcaps (November - December) and 27 Chiffchaffs (eight trapped at CVL on 29 December while one at Berrow showed characteristics of *P. c. abietinus* although many show considerable plumage variation). Three Firecrests in the last week of October were followed by seven in December. Bearded Tits appeared at Berrow (up to five) from 30 October - 1 December (also later in 1983) and Willow Tits in six places (October - December). A Great Grey Shrike at Filton on 26 November followed the late-autumn records. Some 1000 Jackdaws roosted at CVL during December and Ravens were seen at Barrow Gurney, Charterhouse and Stock Hill. A Starling found dead at Pawlett had been ringed on 17 July at Rybachiy, Kaliningrad, USSR. 30 - 50 Tree Sparrows occurred at Gaunt's Earthcott, Old Sodbury and Saltford. Brambling were scarce, as were Siskin (15 - 20, Saltford and Weston Woods) and Redpoll (apart from 30 - 40 at Abbots Leigh, 29 November - 2 December). The first Twite were at Berrow (two on 28 November) with 11 at Portishead on 21 December while one or two Crossbills at the Somerset/Wiltshire boundary appear to have been under-recorded in the area. A Lapland Bunting was at West Huntspill (29 November - 2 December) and Snow Buntings (up to five) were seen at Brean Down, Royal Portbury Dock and Stolford (16 October - 16 November).



# THE BIRDS OF LONG WOOD AND VELVET BOTTOM

by Ken Hall

Plates 3 & 4

## Introduction

In early 1979, the Somerset Trust for Nature Conservation (STNC) asked for volunteers to survey their reserves in order to ascertain the breeding bird populations and the effects of various conservation management actions. I agreed to cover their reserves at Long Wood and Velvet Bottom and this paper presents some of the results of survey work carried out from April 1979 to August 1982.

Long Wood and Velvet Bottom are two of a series of STNC reserves on the Mendip Hills, and both lie in valleys towards the upper end of the Cheddar Gorge system, about 4 km north-east of Cheddar village. The underlying rocks are of carboniferous limestone which, together with the characteristic thin soil, dominates the scenery and vegetation of the area. Like much of Mendip, the surrounding land is plateau in form, and here lies at about 250m. To the north of Long Wood, beyond the Tynings Farm/Charterhouse road, the land rises across arable fields to the open moorland of Black Down (highest point 325m) where underlying old red sandstone gives rise to an area of damp peaty acid soil dominated by heather *Calluna vulgaris* and a few scattered bushes. This is the source of the stream which runs down a short wooded gully to enter the northern end of Long Wood through poplar *Populus* sp and conifer plantations before disappearing into a swallet not long after reaching the more permeable limestone. East and west of Long Wood and again to the south of Velvet Bottom the flat farmland is mainly semi-permanent sheep or cattle pasture, or arable land farmed on a rotational basis. Bushes and trees are thinly scattered, with a few small conifer plantations and plenty of dry-stone walls.

Apart from the stream already mentioned, the only standing water in the area is at Blackmoor in the continuation of the Velvet Bottom valley east of the Charterhouse/Cheddar road. It is here that remains of the 18th century lead workings which had a major effect on the landscape are most evident, stone flues, broken 'gruffy' ground and a few marshy pools with nearby alders *Alnus glutinosa* and willows *Salix* sp forming a habitat distinct from that nearby. Blackmoor is run as an educational nature reserve from the centre near Charterhouse church. A further nature reserve administered by the University of Bristol lies to the south-east, where there is more gruffy ground with exposed limestone, heather and rough grass.

One of this district's attractive features is the way in which the habitat changes markedly over small distances, each reserve having its own distinct character. Although both lie in adjoining limestone valleys, Velvet Bottom and Long Wood are quite different from each other. Velvet Bottom is an open dry valley about 2 km long, mainly covered in rough grassland with small areas of woodland and scrub. The STNC reserve is technically only the valley floor between the lowest dry-stone walls, enclosing an area of 17 ha, but for the purposes of this survey I defined the limits to be the stone walls along the top of the slopes (see Fig. 1 for precise boundary used), making about 48 ha in all. The tabulated figures refer to this area, although birds seen nearby are commented on where appropriate. The western end of the valley has steep sides with much hawthorn *Crataegus monogyna* scrub and a few taller trees. Over the next section, to the main central bend, the valley floor rises in a series of grassy levels bounded by rubble dams. These areas have a very high lead content, being the remains of filtration beds constructed in the 19th century to protect Cheddar from lead-polluted water emanating from lead workings further up the valley. Although no trees will grow here, the southern slopes have scattered clumps of hawthorns with much bracken *Pteridium aquilinum*, and are used for sheep grazing. The northern slopes also have scattered hawthorns, but are grazed by cattle and so contain larger areas of open limestone grassland.

At the central bend, the valley floor is pitted with hollows and mounds covered in coarse grass. Rabbits *Oryctolagus cunicus* are numerous throughout the valley, but the largest numbers are in these rough areas in the eastern half. Although the southern slopes continue as open grassland with a few bushes, almost to the eastern boundary of the reserve, the northern slopes are here covered with bracken and brambles *Rubus* sp, being partially cleared in places by the STNC and replanted with young oaks *Quercus robur*. A small copse opposite a patch of lead slag is all that remains of a former wood here. The only building in the valley is the Adventure



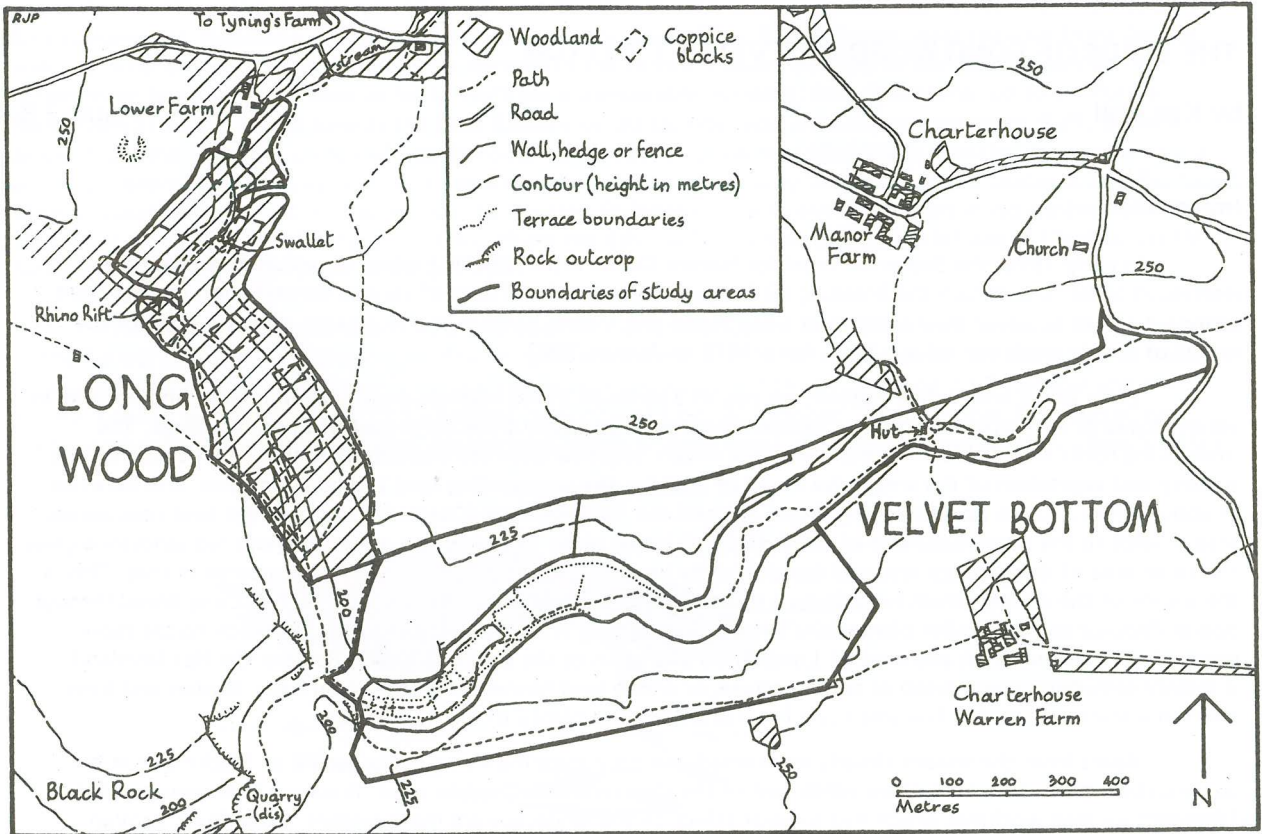


Fig. 1. Map of Long Wood and Velvet Bottom showing study area boundaries. The general position of Long Wood on Mendip is indicated on the map on page 4.

Centre ('hut') beyond which lies another steep bank with bracken, brambles and scrub, also being partially replanted. The road beyond forms the eastern boundary of the study area. A side valley to the north contains a small copse, and leads to Charterhouse Manor Farm, a reputed site of the monastic settlement which gives the area its name. Conservation management, apart from the replanting of south-facing slopes already mentioned, mainly involves control of bracken and hawthorn to the benefit of the flora, a varied butterfly population (26 species recorded) and – would-be explorers be warned – a large number of Adders *Vipera berus*. Over the study period few major habitat changes took place.

Long Wood lies in a more steeply sided valley running roughly north-south. The wood is almost entirely on the slopes and covers an area of about 25ha, enclosed from the surrounding farmland by fences and dry-stone walls. Most of the wood was clear-felled in 1948/49, only a few scattered trees being left. In the early 50s it was replanted mainly with beech *Fagus sylvatica* together with some European larch *Larix decidua* and Corsican pine *Pinus nigra*. Hazel *Corylus avellana* is predominant in many places and other numerous trees of the shrub layer include wayfaring tree *Viburnum lantana*, blackthorn *Prunus spinosa* and elder *Sambucus nigra*. Starting in 1974, the STNC have opened up a series of coppice blocks around the wood with the intention of maintaining them on a ten-year cycle, while leaving scattered 'standards' of oak, beech and ash *Fraxinus excelsior* to continue growing. At present mature trees are rather few, there being a stand of sycamores *Acer pseudoplatanus* at the south-east corner, scattered oaks and pines *Pinus* sp through the centre, and rather more oaks and ashes at the north end. The coppice blocks are surrounded with brushwood barriers in an attempt to exclude the roe deer *Capreolus capreolus* which are present in small numbers (up to 3 seen at a time). The ground flora is rich and varied as one would expect in a limestone area. Primroses *Primula vulgaris*, cowslips



*Primula veris*, violets *Viola* sp, dog's mercury *Mercurialis perennis* and wood anemones *Anemone nemorosa* everywhere in April are followed by bluebells *Endymion non-scriptus* and wood garlic *Allium ursinum* in profusion in May. Early purple orchids *Orchis mascula* and spotted orchids *Dactylorhiza fuchsii*, herb paris *Paris quadrifolia*, moschatel *Adoxa moschatellina* and toothwort *Lathraea squamaria* all occur at this time. Later in the summer the leaf canopy becomes dense, but foxgloves *Digitalis purpurea*, meadowsweet *Filipendula ulmaria*, rose-bay willow-herb *Epilobium angustifolium* and stinging nettle *Urtica dioica* are prominent in more open areas. The reserve boundary proper encloses an area of 17 ha within the wood and once again, all tabulated figures refer to the numbers of birds recorded within this basic survey area, although birds seen in the wood generally and nearby are commented on where appropriate. The actual reserve was felt to be quite big enough to be covered in the time available and was more clearly defined on the ground than was the wood as a whole. The western 'tongue' lay outside the reserve and held rather more mature oaks with rich nettle and bramble undergrowth. Towards its far end the wood peters out in a thicket of hawthorns and blackthorns. Also outside the reserve is Lower Farm with an open slope dotted with hawthorns, blackthorns and yews *Taxus baccata* to its west, and a small conifer plantation to its east. The fact that this area is private and therefore not easily surveyed in detail was an additional reason for omitting it from the basic recording area.

Long Wood and Velvet Bottom are linked by an open valley with scrub-covered slopes, Black Rock Drove, which continues into Black Rock nature reserve, eventually joining the B3135 down into Cheddar Gorge. Around Black Rock there are several plantations of pines and larch plus plenty of hawthorn and blackthorn on the steep slopes. An old quarry forms the nearest outcrop of bare limestone, although plenty of this habitat occurs in Cheddar Gorge itself. The whole area is heavily used for recreation, and although the main hordes are confined to the lower end of the gorge, weekends throughout the year see a fairly continuous trickle of people using the footpaths and nature trails of all the reserves. Disturbance and wilful damage appears to be relatively light, however, and other than in the afternoons during the main summer months it is often possible to have an undisturbed walk.

### Aims and methods of the survey

The basic aim of the survey was to ascertain the number and variety of breeding birds within the reserves and to gain some idea of their habitat preferences and the effects of conservation management. In 1979 my first visit was made on 29 April and it soon became clear that because of this relatively late start and also because of the size of the area, more than one season's work would be necessary to gain a realistic picture. In the end my observations continued to 1 August 1982, and extended throughout the year as it seemed useful to gauge the importance of the reserves for non-breeding as well as breeding birds, particularly as there are relatively few published accounts of winter censuses in woodland. The number of visits is given in Table 1. In addition, surrounding areas, roughly within a circle of diameter 5 km, were covered on a less regular basis in order to put the sightings more into context. In 1983, while this paper was being written I made a few visits to the area and have incorporated one or two observations where they add to the overall picture.

**Table 1.** Number of visits per month to Long Wood and Velvet Bottom. A 'visit' is defined as an occasion lasting at least half an hour (sometimes up to four hours) when at least half the study area was covered. Time spent in surrounding areas or in passing visits is not included.

	J	F	M	A	M	J	J	A	S	O	N	D	
VB				1	3	4	1	1	1	-	1	1	} 1979
LW				1	3	4	1	1	1	-	1	-	
VB	2	1	3	2	2	3	1	2	-	2	-	1	} 1980
LW	2	1	2	3	4	4	1	1	-	1	-	1	
VB	-	2	-	-	1	1	2	2	-	1	2	-	} 1981
LW	1	1	1	2	1	1	2	1	-	1	2	1	
VB	2	2	1	3	2	2	4	1					} 1982
LW	2	3	2	5	5	4	3	1					



For the breeding bird survey, the well known Common Birds Census mapping method was used (Williamson and Homes 1964), the position of singing males being noted between late March and early July each year and plotted on large-scale maps. This method is designed to compare one year's breeding population with another's, and although it does not claim to show the actual numbers of pairs present a reasonable picture of the population can be built up. The overall results for the years 1979, 1980 and 1982 are given in Table 2. The numbers of pairs refer to those recorded within the 'reserve' boundaries as defined in the Introduction. For selected species, the total population within the immediate surroundings is noted in the systematic list. In spreading the survey over several years the primary aim was not to plot the fluctuations from year to year but to leave enough time to gain an overall view of the bird population of the area. The timescale had to take into account such things as the limited time available for visits to be made (each year for instance I was away for two or three weeks in May or June) and also the effects of the weather which on Mendip is often worse than in the surrounding lowlands with rain, mist and strong winds inhibiting bird activity. As a rough indication of climatic factors, the winter of 1978/79 was relatively severe, thus the population in 1979 could be expected to be low, although probably underestimated because of my unfamiliarity with the area at that time. To balance this, the summer of 1979 contained enough good weather to make most visits productive. The 1979/80 winter was fairly mild, but many of the summer 1980 visits were made in cool, wet or windy weather. In 1980 I concentrated on Long Wood, whereas in 1979 I had put most effort into Velvet Bottom. The 1980/81 winter was a little colder, but still not severe. The so-called summer of 1981 contained so many wet and overcast days that I abandoned a strict survey and concentrated on coverage of the surrounding areas, hence the omission of that year's counts from Table 2. The following winter contained some extremely severe weather, with heavy snowfalls blanketing the area in December and again in January. Several species were badly affected, the breeding bird total given probably being a reasonable reflection of those present as the 1982 spring and summer was mild with many calm sunny days making censusing a pleasure.

The densities of birds recorded within Long Wood reserve varied from 435 pairs/sq km to 629 pairs/sq km, the latter figure probably being the most reliable 'average'. The dominant species was the Robin\*, followed by Woodpigeon, Chaffinch, Wren, Blackbird, and Blackcap, these six accounting for over half the breeding population. Twenty-one species bred within the reserve in at least two years of the three, and probably 27 could be said to be regular somewhere within the wood. Williamson (1964) in a survey of 44 acres (18 ha) of mixed woodland in Berkshire found 26 species breeding at a density of 988 pairs/sq km, but his woodland sample contained rather more open areas with scrub. Other surveys of lowland woodland in the New Forest have shown 22 species in natural oak woodland at a density of 787 pairs/sq km, and 26 species in even-aged oak plantation at a density of 671 pairs/sq km (Irvine 1977), while Hope Jones (1972) gives densities for hillside oakwoods in Wales at various stages of development, finding 20 species at 469 pairs/sq km in heavily grazed woods, and 31 species at 908 pairs/sq km in mature woodland with scrub. More locally, Sims (1978) has found 29 species at a density of 514 pairs/sq km in mixed woodland with poor under-storey at Ashton Court. Long Wood appears to contain a relatively high proportion of the birds that require canopy and well-developed shrub layers at the expense of those that need mature trees with a plentiful supply of nesting holes (tits, for instance, providing only 14% of the total, all species combined). The current management practice of rotational cutting of coppice blocks while leaving scattered 'standards' to develop into mature trees should encourage more scrub and wood-edge species to breed and may possibly increase the wintering potential of the wood. The poorest area as far as birds were concerned was the south-east corner of the wood, dominated by sycamores, and STNC plans for their selective felling should also help increase the variety and number of breeding birds.

Velvet Bottom, although important for relatively local species such as the Redstart and Tree Pipit, is very impoverished as far as the total bird population is concerned, supporting only 13 regular breeding species at densities varying from 79 to 108 pairs/sq km. Morgan (1975) found only 13 species at 87 pairs/sq km on chalk grassland in Wiltshire while Glue (1973) found 21 species at a density of 122 pairs/sq km in dry heath and bracken in the New Forest, indicating the density in Velvet Bottom to be among the lowest in southern England. The dominant species were Chaffinch, Yellowhammer, Willow Warbler and Whitethroat, all species associated with the hawthorn and/or bramble scrub. Although the main interest in the reserve lies in the flora and the butterflies, both of which require a relatively open aspect, the growth of a few patches of taller trees should help increase the diversity and density of the bird population.

\* Scientific names of birds are given in the systematic list



**Table 2.** Breeding birds within Long Wood reserve and in Velvet Bottom in 1979, 1980 and 1982. Species are included if it was reasonably likely that the nest site lay within the study area boundaries defined in the Introduction. Wide-ranging species such as Mistle Thrush and Kestrel are excluded if the nest site was known to be outside these boundaries.

Species	Number of territories recorded							
	Long Wood				Velvet Bottom			
	1979	1980	1982	Relative abundance*	1979	1980	1982	Relative abundance*
Pheasant	2	5	4	4%	—	—	—	—
Stock Dove	1?	—	—	—	—	—	—	—
Woodpigeon †	12	12	12	11%	3	3	3	6½%
Tawny Owl	1	1	1	1%	—	—	—	—
Green Woodpecker	1	1	—	½%	—	—	—	—
Great Spotted Woodpecker	—	1	—	½%	—	—	—	—
Tree Pipit	—	—	—	—	2	2	—	2%
Wren	7	12	4	7½%	1	3	—	3½%
Duncock	—	1	—	½%	3	5	2	8%
Robin	10	15	14	13½%	1	3	1	4½%
Redstart	2	2	2	2%	3	3	5	9%
Blackbird	4	7	8	7%	2	2	1	3½%
Song Thrush	2	2	6	3½%	—	1?	—	—
Grasshopper Warbler	—	—	—	—	1?	—	—	—
Whitethroat	—	—	—	—	4	6	5	12%
Garden Warbler	—	1	2	1½%	—	—	—	—
Blackcap	7	7	7	6½%	—	—	1?	—
Chiffchaff	3	4	2	3%	—	—	—	—
Willow Warbler	5	5	6	5%	6	5	6	12%
Goldcrest	—	—	2	1%	—	—	—	—
Marsh Tit	2	3	3	3%	—	—	—	—
Willow Tit	—	1	—	½%	—	—	—	—
Coal Tit	1	1	—	½%	—	—	—	—
Blue Tit	3	6	7	6%	—	2	1	3½%
Great Tit	2	4	5	4%	—	1	—	1%
Nuthatch	3	2	2	2%	—	—	—	—
Treecreeper	—	—	1	½%	—	—	—	—
Jay	1?	2	1	1½%	—	—	—	—
Magpie	—	—	2	1%	1	3	3	6½%
Jackdaw	1	2	2	2%	—	—	—	—
Carrion Crow	1	1	3	2%	—	—	—	—
Chaffinch	5	9	10	9%	7	7	6	14½%
Linnet	—	—	—	—	1	—	—	—
Yellowhammer	—	—	—	—	6	7	5	13½%
Corn Bunting	—	—	—	—	1?	—	—	—
Total (pairs) ‡	74	107	106		40	52	38	
Density (pairs/sq km) ‡	435	629	624		83	108	79	
Number of species ‡	20	25	23		13	14	11	

\* 1980 & 1982 figures only

† average figure based on 1982 estimate

‡ excluding doubtfuls



Turning to the non-breeding season, there is no accepted method equivalent to the CBC technique of presenting the bird population although useful results can be gained from a series of timed counts over a defined area under relatively standard weather conditions. Although I noted the position and numbers of every species on each occasion, the fact that the exact area covered and the time spent varied from visit to visit made this kind of analysis impossible. However, for some species the pattern of occurrence was sufficiently stable for some conclusions to be drawn and these are noted in the systematic list. As far as migration is concerned, results are even more tentative as I made too few visits each autumn, particularly in September, to build up a good picture. However, it is probably true to say that this area of the Mendip Hills is not exactly a spectacular migration watch-point!

By way of a summary, visits to both Long Wood and Velvet Bottom from late March to early July would find plenty of birds to be active and visible, always assuming the weather to be clement. During July Long Wood rapidly became quiet, but from mid July to the end of September the edges of the wood and the scrub in and around Velvet Bottom held good numbers of small birds, the peak of abundance coming in August. In October and November, visits to Velvet Bottom could still often produce birds moving around the area and the edges of Long Wood held attractions for certain species. During December to February many visits would only produce a few sightings as the wintering birds still present in small numbers were often hidden and silent in the abundant cover.

#### The systematic list

The list contains accounts of all species recorded within the general limits of Long Wood and Velvet Bottom and follows the sequence and scientific nomenclature of Professor K H Voous (1977, *List of Recent Holarctic Bird Species*). For convenience, the abbreviations LW, VB and BR have been used for Long Wood, Velvet Bottom and Black Rock respectively.

**MALLARD** *Anas platyrhynchos*. One over LW on 20.3.81 and three over western end of VB on 4.5.81. In addition I flushed a pair from damp ground just north of the VB hut on 12.4.81.

**HEN HARRIER** *Circus cyaneus*. Seen only in the 1979/80 winter. A ringtail flew low over central VB, disappearing in a north-westerly direction on 9.12.79 but did not stop to hunt. Another ringtail on 4.3.80 quartered the western end of VB and rough ground around BR, and was also seen flying low over LW. On 11.5.80 I saw an adult male flying west-north-west, high over the western end of VB, presumably a late migrant. The Mendip plateau does not seem to be as favoured as the coast by wintering birds and in fact these were the only birds I saw anywhere on Mendip during the period, although odd birds are noted occasionally in local reports.

**SPARROWHAWK** *Accipiter nisus*. Single birds of both sexes seen regularly throughout the year over all parts of the area, including hunting birds within LW. No evidence of breeding in the study area, but certainly occurs nearby. A pair chasing each other over the west end of VB on 11.5.80 and a pair circling together over the south end of LW on 28.2.81 were the only obvious examples of display noted.

**BUZZARD** *Buteo buteo*. Not found nesting within study area, but regularly present in VB from mid April to mid July each year when single birds were often seen soaring over the area between the centre of VB and the hut or perched in trees or on the ground nearby. Rabbits are common here and as late spring corresponds to the peak production of their young the high numbers at this time presumably attracted the Buzzards. When disturbed they normally flew off in an easterly or southerly direction. The heathy area south-west of Ubley Warren Farm was another favoured hunting area. Two birds were seen together on 21.6.81 and on 9.5.82 a pair was seen displaying over the centre of VB, later flying off south. The local population seems to contain some pale individuals, very white birds being seen on several dates in 1979 and 1982, and pale sandy birds in 1980 and 1981. It is possible that they were all the same individual, although I think that at least two birds were involved. Outside the April/July period, Buzzards rarely seemed to visit the study area and LW held few attractions at any time. Singles going north-west over VB on 29.8.81 and east over LW on 11.10.81 were possibly migrants. One over BR on 16.1.82 moved off south-west.



**KESTREL** *Falco tinnunculus*. From the end of February to the end of October regularly seen hunting over the whole length of VB and around BR, the slopes of both being favoured by hovering birds. They often also hunted from perches provided by trees, bushes and telegraph wires. Birds from two pairs were involved, although neither nested within the study area itself. One was based around BR while the other was from east of VB, their hunting territories appearing to overlap widely in VB, although they did not use the same areas simultaneously. One bird hunted in the fields west of LW, passing over occasionally, but the only time I saw one within the wood itself was on 5.11.81 when an immature perched briefly near Rhino Rift before flying off. Birds were present through the 1979, 1980 and 1981 breeding seasons, and appeared to be resident although less often seen from November to February. I suspect that they fed more often from perches at this time and perhaps concentrated on food items found in greater abundance in other parts of their territories. Despite more frequent coverage in the 1981/82 winter and through 1982 I saw none from December to the end of March, and single birds only irregularly from then on, indicating that they had been affected adversely by the cold weather.

**HOBBY** *Falco subbuteo*. Not seen during main study period but presumed migrant seen catching insects over VB and BR on 24.9.83.

**RED-LEGGED PARTRIDGE** *Alectoris rufa*. One heard calling from the top of the north slopes of central VB on 4.11.79. This species is present in very small numbers on the surrounding farmland (four seen between Charterhouse and Black Down on 25.8.80 and one on 20.3.81), being periodically augmented by birds released for shooting.

**PHEASANT** *Phasianus colchicus*. Resident and presumably breeding around the edges of LW with males heard crowing from up to five sites in the breeding season. Singles occasionally seen in the fields east of LW or flushed from cover around the wood. Only sighting in VB was a male flushed from the bracken-covered slopes west of the hut in December 1979. Again, some hand-reared birds may be involved.

**GOLDEN PLOVER** *Pluvialis apricaria*. Ten flying south-west high over central VB on 1.1.80 on a day when Lapwings were also seen on the move.

**LAPWING** *Vanellus vanellus*. Seen regularly only from mid June through August when moulting birds gathered in the fields around VB, flocks of up to 100 birds flying over at this time. On 17.7.82 an investigation of the fields to the south showed over 3000 birds to be present in what is a relatively undisturbed area. On only one occasion did birds land briefly on the upper slopes of the study area. Otherwise my only sightings were of 60 going south-west high overhead on 1.1.80 and a similar number going east on 3.1.82.

**WOODCOCK** *Scolopax rusticola*. Single birds flushed from near the centre of LW on 3.1.82 and from bracken on the open southern slopes of VB on the same day. From records in *Bird News* there appeared to have been an influx into the district at this time. Odd birds have been seen very occasionally in LW and BR by other observers but the species' exact winter status is hard to pin down.

**CURLEW** *Numenius arquata*. Two over the east end of VB on 5.5.79 and a single over the same area on 25.4.81, reflecting passage at this time.

**BLACK-HEADED GULL** *Larus ridibundus*. Each year birds appeared in early July and were seen until the end of February, either flying over or feeding in the fields all around LW and VB. Numbers involved were small, rarely more than 25 at a time, this section of the Mendip plateau at least not seeming to attract this species very much.

**COMMON GULL** *Larus canus*. The gull which forms the largest flocks on Mendip. My earliest date was mid October but I saw large numbers, usually only passing over or feeding in the surrounding fields, only from late December to late February. On 7.2.81 over 1700 were present in separate groups north and south of VB, and on 21.2.82 about 1000 landed briefly on the north slopes of VB. Interestingly this flock contained only one Black-headed Gull, and most flocks contained only a few birds of other species.

**LESSER BLACK-BACKED GULL** *Larus fuscus*. Two flying over VB on 1.6.80 and ten in fields south-east of VB on 19.6.80. Then from 16.5.82 to 3.7.82 up to five were seen on seven dates flying over either LW or VB. These mid summer observations probably refer to immature and non-breeding birds associated with local colonies around Bristol and the Severn estuary. Small parties of this and the next species are particularly



attracted to recently cut hayfields where insect numbers are high, the grazing land close to VB and LW being less favoured.

**HERRING GULL** *Larus argentatus*. From early May to early October singles and small groups of up to ten were seen over LW and VB. Like the previous species, rarely seen on the ground in this area, and again not noted in the winter, but doubtless overlooked. There was some suggestion of an evening movement towards Cheddar.

**GREAT BLACK-BACKED GULL** *Larus marinus*. The only bird positively identified was one adult or near-adult over VB on 11.5.80.

**FERAL PIGEON** *Columba livia*. Occasional sightings of flying birds throughout the year, the majority probably referring to racing pigeons.

**STOCK DOVE** *Columba oenas*. Marginal evidence of breeding in LW with song heard on 29.4.79 and 8.5.79 and again on 7.5.82 but otherwise rarely seen in summer, the only sightings being one over LW on 6.4.80, one over VB on 15.6.80 and two over LW on 21.6.81. In the winter up to ten occurred in the fields to the south of VB, and all sightings probably refer to birds known to breed on the Cheddar Gorge cliffs.

**WOODPIGEON** *Columba palumbus*. A difficult bird to census properly and it was only in 1982 that I made any real effort to look for nests. In LW these mainly occurred in places where there was a well developed shrub layer, particularly in the south-east, north and central west of the reserve, nests being about 2-3 m up in bushes. Between 8-15 pairs within the reserve (estimated from a combined nest count and on singing birds) seemed a reasonable estimate in 1982, with others in those parts of the wood outside the reserve. There was no evidence of any major change in breeding status from year to year and an 'average' figure of 12 pairs has been used in Table 2. Birds tended to be present regularly in the wood from March to September, with the largest numbers noted in April and May. Outside this period small numbers would be flushed on odd dates, although birds were regularly seen feeding in the nearby fields and parties of up to 25 would often fly over, this being the largest number seen at any one time in the fields in the winter. As far as VB was concerned, parties of up to ten birds could be flushed at any time of the year, particularly from those areas where hawthorn bushes were most dense, with ones and twos often to be seen flying over from one feeding ground to another. Singing and display flights occurred in the bushy areas west of the hut and on the central southern slopes. In 1982 three nests were found in these areas and this figure has been used as an 'average' in Table 2.

**COLLARED DOVE** *Streptopelia decaocto*. Two seen flying south over VB hut on 9.12.79 and east over the same spot on 10.7.81. The only other record within the study area was a bird flushed from hawthorn bushes on the central southern slopes on 15.11.81, this bird flying off west. Isolated pairs and small groups occur at several farms on Mendip and appear to be very resident. They breed at nearby Manor Farm and may well do so at the equally close Charterhouse Warren Farm, the VB records no doubt referring to local movements by these birds.

**CUCKOO** *Cuculus canorus*. No positive evidence of breeding anywhere within the study area although likely not far away. Single birds seen three times in VB in late April and early May 1979, and a pair was present at the eastern end in late June 1980. These latter birds were probably associated with the heathy area to the south-east where there is a small population of Meadow Pipits, a species commonly parasitised. None were seen in 1981 or 1982. As far as LW is concerned, they might possibly have bred in 1980 as males were heard calling on three dates in May and June with pairs being seen on two occasions in this period, all sightings being in the northern half of the wood. My strong suspicion, however, is that these birds were more likely associated with the woodland-edge or heathy areas lying outside the reserve, particularly as this is where most Dunnocks, another preferred host species, occur. Single males were seen and heard on 8.5.79, 16.6.79, 25.4.82, 7.5.82 and 14.5.82, again all at the edges of the wood with no other firm evidence of breeding.

**TAWNY OWL** *Strix aluco*. One pair bred in the southern half of LW in 1979, 1980 and 1982, and no doubt in 1981 also. No regular nocturnal censuses attempted, but from late April through to June each year birds could often be seen during the daytime, either one of the adults near the nest in a hole in a mature tree, or more often one of the recently fledged young being mobbed by small birds. Not recorded from VB, but on 14.4.80 one was heard calling briefly from the area towards Manor Farm. (Note. In 1983 recently fledged young were found at two other well separated sites in LW, in addition to the usual spot, and it is possible that these had been overlooked earlier.)



SWIFT *Apus apus*. Up to five seen very irregularly over the study area, from late May to mid August. On 3.7.82 two were feeding low over central VB but otherwise birds were usually just passing over. The top of Black Down, however, seems to be a favoured feeding area for Swifts, several dozen often to be seen sweeping low over the heathland around the highest point.

GREEN WOODPECKER *Picus viridis*. General pattern was of a single pair nesting in the southern part of LW, flying out to feed on the open grassy areas around the western end of VB and in BR, but withdrawing from the area in winter. Tall trees close to good grassy feeding grounds seemed to be the main breeding requirements. Single birds seen frequently from April to August 1979, ranging widely in the southern and eastern parts of the wood where presumably bred. Apart from one between VB and BR on 22.9.79 not seen again until 4.3.80 when single reappeared at southern edge of LW. Birds then seen regularly in west VB and south LW until early August. Young heard calling on 11.6.80 in southern LW and apparent family party noted in BR on 3.8.80. Seen in LW and BR on two dates in October 1980 and one flushed from the sheltered grassy valley north of the VB hut on 21.12.80. As not really dependent on trees apart from as nesting sites, no doubt spends the winter on the lower grassy slopes of Mendip; it is certainly not a true resident. Present again in LW from March to August 1981, but obviously affected by the severe winter of 1981/82 as not seen again until 24.7.82 when a single bird appeared at the southern end of LW.

GREAT SPOTTED WOODPECKER *Dendrocopos major*. Single birds could be seen in LW at any time of the year, though not strictly resident as birds seemed to wander over a large area of which the wood was only a part, particularly in the winter. Even during the breeding season I saw birds flying in and out to the south. Showed some preference for the western half of the wood where most of the old oaks occur. Breeding status rather puzzling as no nests or young found. In 1979, calling birds present in late April and early May but not seen subsequently until August. In 1980, calling and drumming heard in early April to mid May and birds still present in late June but not seen again until October. In 1982, drumming and displaying birds seen in mid and late April but then no sightings until mid July. In addition, single birds were seen reasonably frequently during most winter months. Assumed to breed in 1980 and possibly in the other years. It may be that birds hold territory only for a short time while they are breeding then wander quite widely around the general area during the rest of the year. However, it should be noted that I saw none in VB at any time during the period.

SKYLARK *Alauda arvensis*. Bred each year in the fields north and south of VB and east and west of LW, birds (mid January to July) commonly coming to the edges of the study area during their song flights. Occasional parties of up to ten seen flying over VB in October and early November but no large movements noted. Small parties (up to 20) occur on Mendip throughout the winter and from the fact that birds start singing as early as January it is likely that these are local birds.

SAND MARTIN *Riparia riparia*. One migrating east along VB on 5.5.80 with a party of Swallows.

SWALLOW *Hirundo rustica*. Three or four pairs nested at Lower Farm, just outside the LW reserve, appearing in early May (first dates 10.5.80, 7.5.82) with adults and young remaining until late August. Feeding birds were regularly seen over the northern end of the wood and the nearby fields. They also nested at Manor Farm, early broods from here feeding over the upper end of VB from mid June to late August. Notable autumn gatherings were 50 around Lower Farm on 23.8.80, with 20 around the VB hut on the same date. April and most September/October records seem to concern passage birds, usually the odd single over VB (earliest 6.4.80, latest 12.10.80). Ten on 5.5.80 were going east along VB but records were too few to discern any real preferred direction at either season.

HOUSE MARTIN *Delichon urbica*. Feeding parties of up to 30 appeared over the east end of VB and nearby fields from late June to mid August. There is a small colony at nearby Charterhouse, where interestingly the nests are mainly hidden under the roof tiles. Otherwise the only record was of four birds circling high over the lower end of LW on 22.9.79.

TREE PIPIT *Anthus trivialis*. Bred in VB (max 2 pairs), favouring those areas at the eastern and western ends where there are slopes with good ground cover plus a few taller trees to provide song posts. Other pairs frequented the adjoining BR and Blackmoor areas where similar habitat occurs. Not recorded in LW. Typical pattern was for singing birds to occupy territories from late April/early May (first dates 29.4.79, 5.5.80, 11.5.80, 9.5.82) until early July with pairs or presumed family groups (up to 4 birds) present in the



general area of their territories until mid August. From late July birds wandered rather more widely about VB but were probably still from not far away. Single birds were present until the end of August each year but not later (last dates 27.8.79, 23.8.80, 12.8.81). No birds bred in VB in 1982, although the very top end fringed the territory of a pair based to the east of the road, the first sightings being a single on 24 July and a pair at the western end on 1 August.

**MEADOW PIPIT *Anthus pratensis*.** As far as the study area, strictly defined, is concerned, the Meadow Pipit was a rare autumn (August-November) and even rarer spring (March-April) visitor to VB, most records involving single birds flying over or flushed from the slopes, only the odd autumn party containing more than five birds. Never recorded from LW, apart from one or two birds flying over. This picture is rather misleading as the heathy area a few hundred metres to the south-east of VB contains a regular breeding population (perhaps 5 pairs) where parties of up to 40 can be seen in July-September and again in March, small numbers being present all year. The open grassland of VB is obviously much less attractive at all times, although one bird did deign to sing over the centre of VB on 14.4.80. Meadow Pipits also breed commonly on the heathy area on top of Black Down, smaller numbers being present during the winter.

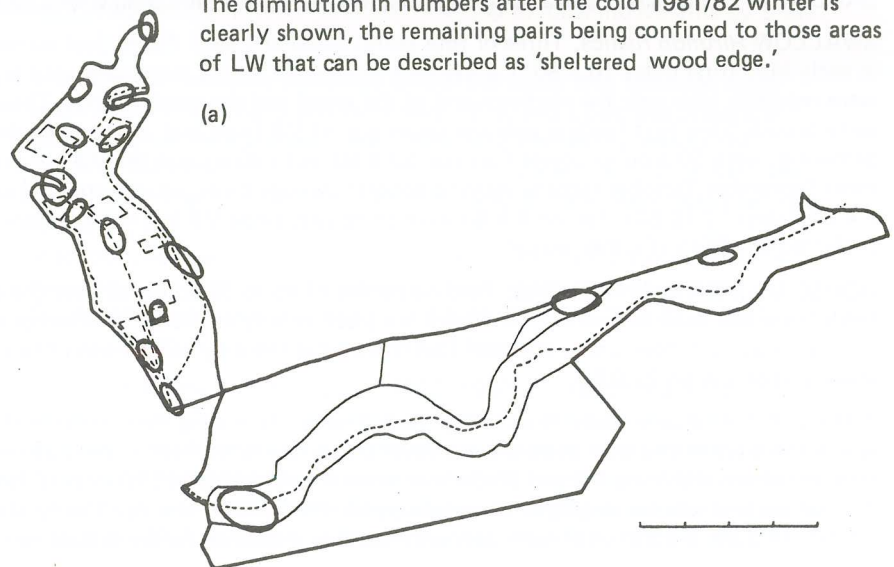
**YELLOW WAGTAIL *Motacilla flava*.** Not seen during the main study period but two migrants seen flying north over central VB on 27.8.83.

**GREY WAGTAIL *Motacilla cinerea*.** Two records from VB, of singles flying over on 12.10.81 and 21.2.82, and one from near LW where one landed briefly on telegraph wires by the stream through the top plantations on 15.11.81. Not known to breed in the immediate vicinity.

**PIED WAGTAIL *Motacilla alba*.** Singles seen flying over VB on 4.11.79, 14.4.80, 28.2.81, and 11.10.81 and over the northern end of LW on 20.3.81. Apparently resident at nearby Manor Farm, which like many of the Mendip farms provides a year-round food supply in an area which can otherwise be fairly inhospitable in winter.

**WREN *Troglodytes troglodytes*.** Bred in both LW and VB, the number of pairs each year reflecting the national CBC trend and the severity of the preceding winter (see Table 2). This pattern gave the opportunity of indicating the types of habitat most favoured by Wrens, as it can be assumed that these are the ones recolonised first (see Fig. 2). In LW, the breeding population was very much 'wood edge', being strongly associated with the outskirts of the wood or the clearings within it. In this respect the presence of brushwood barriers (against browsing deer) around the coppiced areas in the wood provided excellent nesting sites. In the

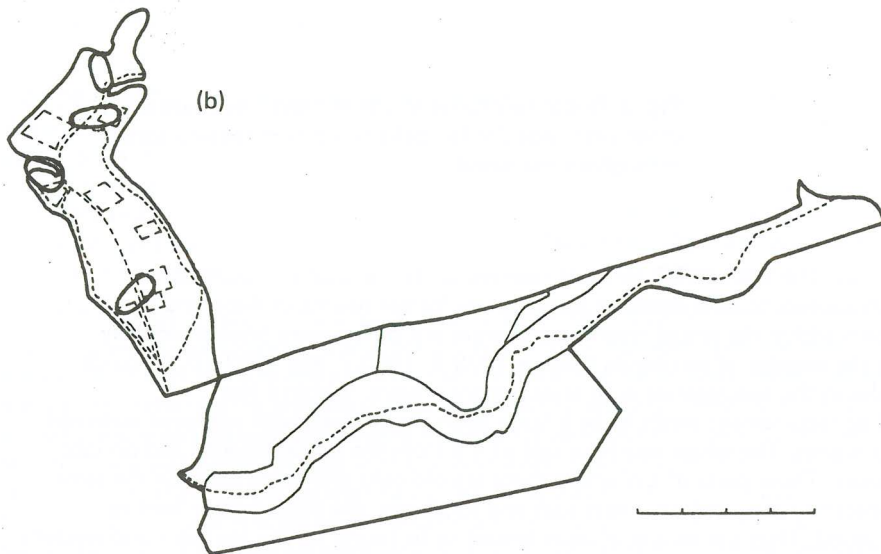
Fig. 2. Wren territories in LW and VB in (a) 1980 and (b) 1982. The diminution in numbers after the cold 1981/82 winter is clearly shown, the remaining pairs being confined to those areas of LW that can be described as 'sheltered wood edge.'





relatively open area of VB a similar habitat preference was shown although in a different way, with birds breeding in two years (1979, 1980) on the bank west of the hut where there were most trees, and in one year (1980) on the banks east of the hut and at the western end of the valley where there were plenty of bushes but fewer trees. In 1982, with the species at a low ebb, the only pair was in the copse north of the hut outside the study area proper. Irrespective of the weather, there was a definite exodus from LW in autumn, there being few records of birds between mid August and mid December, particularly in the southern half of the wood. The north-eastern and north-western extremities (mainly outside the reserve) were more favoured as wintering sites, a couple of birds surviving here through the first although apparently not the second hard spell of 1981/82. Conversely there was an influx into VB although in the absence of ringing data it is impossible to tell if the same birds were involved. Wintering birds arrived at any time between August and December, either staying on to breed or leaving in mid March, and showing a distinct preference for areas with deep bracken to provide cover. The winter population was about six or seven birds each year, although none were seen after the first heavy snowfall of mid November 1981. As far as LW was concerned, numbers seemed to build up again from January. In 1980, sites apparently occupied were one in January, three in mid February, five in early March and eight in early April, it not being until early May that the full twelve were tenanted. The pattern of reoccupation after the severe winter of 1981/82 when none were seen from mid January to mid March was interesting: two sites had singing birds at the end of March, a third had a bird present then but with no singing heard until the end of April, while the fourth site was not occupied until 10 April with song not occurring until 14 May. It is possible that females arrived well before males in the latter two cases.

**DUNNOCK *Prunella modularis*.** I found this a difficult bird to census, as there were a large number of single widely spaced sightings in VB; however, on the assumption, based on a few birds closely watched, that they often travelled well away from their nest sites during the breeding season, I have used minimum figures in Table 2. More pairs may well have been present. Hawthorn bushes plus plenty of ground cover seemed to be the basic requirements for nesting, and thus they were widely spaced throughout the valley. Numbers and sites were about the same in winter as in the previous summer, so presumably birds were resident. In 1981/82, six birds were noted in November but only one in January and with only two pairs breeding in the study area in 1982 were no doubt affected by the cold weather. In LW, not often seen in the reserve itself, winter or summer, although up to five pairs nested on the outskirts, preferring the open bushy areas to the south-west, north-west and north-east. Little variation noted through the year and apparently survived the 1981/82 winter quite well, birds singing from March/April as opposed to May/June in VB.





ROBIN *Erithacus rubecula*. The most numerous breeding passerine in LW each year, Table 2 showing the numbers within the reserve boundaries: several more nested in the wood generally. There was no obvious habitat preference, although territories were mainly well within the wood rather than spread along the edges, and were fairly evenly distributed through the area (see Fig. 3). In the winter the picture was completely different with most birds leaving the wood and those remaining tending to be found along the edges or in those parts outside the reserve (e.g. the north-western extension and top plantation area) where the woodland is less dense. David Lack (1965) indicates that there is a significant difference in migratory behaviour and timing of breeding between woodland Robins and those living in gardens or more open countryside, and these results seem to agree with this. The majority of territorial (singing) birds did not appear until the very end of March, but then rapidly occupied their territories. Song petered out in early July and from then on birds were difficult to find, though exactly when they deserted the wood is hard to tell, owing to the thick cover. Birds were also inconspicuous during the winter and were no doubt overlooked but the estimated number of apparently territorial birds present within the reserve from September to February in each winter was five in 1979/80 and six in each of 1980/81 and 1981/82, quite a considerable drop compared with the previous breeding seasons. Although the wood seemed devoid of Robins immediately after the January 1982 snowfall, birds rapidly reappeared by early February so presumably moved locally rather than being killed. Numbers in the following breeding season seem to support this. In VB the seasonal pattern was reversed, although the numbers involved were much lower. The areas favoured were much as those by the Wren, the maximum of three breeding sites being the banks east and west of the hut and at the western end of the valley, with wintering birds being found here and in the bushy areas either side of the 'levels'. The pattern of movement was rather confusing, but birds appeared in non-breeding sites in mid June and July (unfortunately not seen but possibly dispersing juveniles). Otherwise purely non-breeding sites were occupied from October to December although in the years when three breeding pairs were present (1980 and probably 1981) birds apparently stayed on in sites first occupied the previous autumn. The number of wintering birds increased each year to an estimated ten in November 1981, but none were seen then until March 1982 due to the effects of the cold weather.

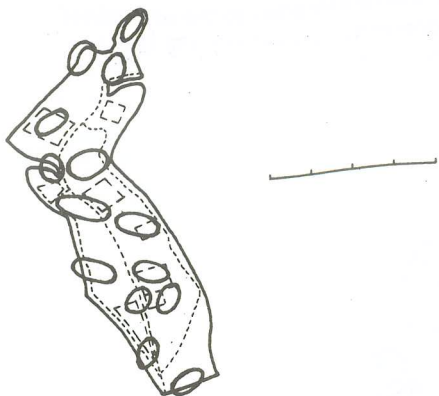


Fig. 3. Robin territories in LW in 1982; distribution in other years was similar, pairs being fairly evenly spread throughout the wood.

REDSTART *Phoenicurus phoenicurus*. The VB/LW/BR series of reserves contain a locally important concentration of this species, which appears to have deserted several of its former haunts in Avon and north Somerset. Table 2 shows the numbers within the actual reserve study areas but others were present close by and if these are taken into account the number of territories become 1979:6, 1980:7, and 1982:10. (A quick check in 1983 found at least 7 males in the two reserves with several more present within a few kilometres.) The birds' main breeding requirement seems to be a fairly open grassy slope with scattered outcrops of rocks, tree stumps and scattered bushes. The whole southern side of VB from the hut westwards and on into BR appears ideal, and held several pairs. Those parts of LW where there are old oaks and stone walls on the same basic terrain were also used but apparently provided only nest sites and songposts, the birds mainly feeding outside and along the edges of the wood. Thus the couple of pairs tended to be found on the southern and western



edges and I suspect that in 1980 one long-singing male remained unmated, perhaps indicating less favoured habitat. Birds arrived from mid to late April (first dates 29.4.79, 14.4.80, 18.4.81, 25.4.82), singing from arrival until late June. However, some birds may sing very infrequently once mated and then were easily overlooked. I did not see birds in LW after mid July but in general they continued to be found near their actual breeding sites until the end of August, the adult males noticeably moulting during this month (last dates 27.8.79, 23.8.80, 29.8.81).

**WHINCHAT** *Saxicola rubetra*. One at the 'bend' of VB on 23.8.80 and three immatures on the nearby southern slopes on 12.8.81 could well have been dispersing locally bred birds, although I know of no pairs in the immediate vicinity. These latter, interestingly, were accompanied by two immature Stonechats. More obvious migrants were one on 4.10.80, again at the centre of VB, and three spring birds on 10.5.80 at the very western extremity of LW, outside the main study area.

**STONECHAT** *Saxicola torquata*. Occurred in VB as a migrant, showing some preference for the more open central area. Apart from the single spring record, a female on 4.3.80, the earliest birds were two immatures seen just east of VB on 25.6.80. These were presumably bred locally (definitely bred just east of VB in 1983), although the nearest known pairs in the period were on the rough moorland on top of Black Down. The origin of the remaining autumn birds is less clear: two immatures with Whinchats on 12.8.81, a pair of adults south-east of VB on 4.10.80, and female/immatures on 12.10.80 and 4.11.79. Despite the bleakness of the position, some Stonechats regularly winter (or attempt to do so) on Black Down, but other birds appear on rough heathery and gorse areas more widely on Mendip away from actual breeding sites, indicating some shifting of the population. It seems that VB itself does not contain enough of the dense low cover provided by gorse and heather that this species appears to prefer in both summer and winter to attract the birds for more than a few days.

**WHEATEAR** *Oenanthe oenanthe*. Spring migrant through VB in early May and no doubt regular here as elsewhere on Mendip, though actual sightings low in number: one on 5.5.79, three on 13.5.79, one on 11.5.80 and one on 9.5.82. One autumn record, a single on 27.8.79, reflecting lower coverage at this season (two seen on Cheddar cliffs same day).

**BLACKBIRD** *Turdus merula*. Traditionally a difficult species for which to make an accurate breeding census and in LW was no exception; in addition the winter picture was equally confused! From mid May to August, and especially in June and July, birds could be heard singing or be seen almost anywhere in the wood, the estimated seven or eight pairs within the reserve boundaries being fairly evenly spread. At all other times of the year, even in April when one would expect territories to be occupied, only low numbers were seen, many visits producing no sightings at all. It is possible, however, that silent birds were overlooked feeding on the ground in thick cover. In the 1980/81 winter for instance I saw birds very rarely, except that on 21 December at least ten birds were present in widely scattered locations. A brief influx seems the most likely explanation but I am not sure. In VB, the maximum of three sites were the bushy areas near the hut, the western end, and each side of the 'levels'. Birds were rather more widespread in winter, although usually near cover, with up to ten birds apparently wintering on average, indicating a slight influx, although again some of the birds may have been passing through.

**FIELDFARE** *Turdus pilaris*. Regular each winter from mid October to late March with parties of around 40 or 50 birds feeding in grassland at the top of the central VB slopes and north-west of LW. However, by no means always present, and often merely seen flying over. They seemed to stay later in the spring on the Mendip plateau than on lower ground, with passage birds possibly involved; for instance seven birds went east over LW on 3.5.80 and 40 were still feeding near the wood on 10.4.82. About 60 birds roosted in dense hawthorns at the far end of LW's western 'tongue' in November and December 1981, and could well have done so on other unchecked occasions.

**SONG THRUSH** *Turdus philomelos*. Primarily a summer visitor to LW with up to six pairs within the reserve, very few being seen from October to mid March. Apparently increased over the study period although Table 2 is slightly misleading in that in 1979 one extra pair and in 1980 two extra pairs nested just outside the reserve boundaries, the species preferring the woodland edge for breeding, although needing some tall trees to provide song posts. One or two birds might be back and singing in mid February, but the majority seemed to take up territories in mid March. There was a peak of song in the second week of April with less in the second half of the month when presumably first-brood young were being fed. Song was more frequent again in early May through to mid June. Birds could be found feeding on the ground among the trees sometimes in groups of up to four to the end of September, but from then on were very occasional. As far as VB is concerned even the pair recorded in Table 2



for 1980 is rather doubtful and may refer to birds from the more regular site in the copse north of the hut. In 1982 singing birds appeared in the western half in July, at the same time as there was an upsurge of song in LW outside known territories. These may have been late-nesting birds taking up new territories although some individuals apparently experience a resurgence of song once breeding is over (Rollin 1945). In winter, from late September to late February, Song Thrushes were more often seen in VB, usually in twos and threes flushed from the deep bracken of the south central slopes. The bracken seems to provide good winter cover for several species in otherwise inhospitable areas of the Mendip Hills.

**REDWING** *Turdus iliacus*. Usually seen flying over any time between early October and mid March, although birds occasionally landed in the VB hawthorns or the trees at the north end of LW. Flocks of up to 50 birds seen several times; less regular than Fieldfare.

**MISTLE THRUSH** *Turdus viscivorus*. Not found nesting within reserve boundaries but nevertheless a characteristic bird of the area as one pair nested somewhere north-east of the VB hut every year, and one somewhere around Lower Farm, LW, in 1980, 1981 and 1982. As the species has a large territory, birds from both pairs occasionally sang within the study area, either around the VB hut or in the northern half of LW. The VB birds were semi-resident, the far-carrying song being heard from February to May and birds being seen in the valley north of the hut from time to time all through the year. In June and July family parties fed in VB itself, the grassy slopes opposite the hut and at the western end of the valley being most favoured. I only saw the Lower Farm birds from January to June each year, usually singing birds at the edge of the wood. However, they mainly fed in the fields to the north and west which I covered infrequently, and may well also have been there during the latter half of the year.

**GRASSHOPPER WARBLER** *Locustella naevia*. Included as a possible breeding bird on the strength of a bird seen on the bracken and bramble-covered slope east of the VB hut on 5.5.79 and singing at the same place on 13.5.79. Not noted in any other year or in the immediate vicinity, although the species breeds on the northern slopes of Black Down.

**LESSER WHITETHROAT** *Sylvia curruca*. A single bird singing in the dense scrub west of Lower Farm, LW, on 11.5.80 was probably a migrant. However, a singing bird in the valley north of the VB hut on 16.5.82 was followed by a pair calling in alarm just behind the hut on 3.7.82; this species often has a very short song period and it is likely that they were breeding nearby. The only sightings within the reserve area (although perhaps related) were singles at the western end of VB on 24.7.82 and 1.8.82, with a second bird at the 'bend' in the centre of VB on the latter date. All were associated with the parties of tits, warblers, etc, that move around the hawthorns in late summer.

**WHITETHROAT** *Sylvia communis*. Breeds wherever there are patches of thick brambles and a little shelter. The VB pairs (between 4 and 6) were all found on the banks along the north side of the reserve (see Fig. 4). Other pairs inhabited the slopes of BR, the area south-west of LW, the brambly areas at the far end of the western 'tongue' and at the northern end of LW. Most birds took up territories nearly simultaneously (5.5.79 - 13.5.79, 5.5.80 - 11.5.80, 7.5.82 - 9.5.82) and stayed in a restricted area at least until they ceased singing in early July. Birds were still seen at their breeding sites at the end of July but August birds could be found anywhere in VB (last dates 23.8.80, 12.8.81).

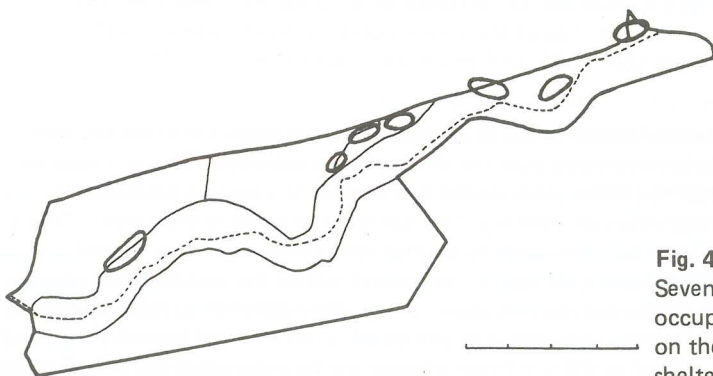


Fig. 4. Sites in VB favoured by breeding Whitethroats. Seven territories are shown, although not all were occupied every year, and the boundaries varied depending on the number of birds present. Bramble-covered areas sheltered by trees or walls were preferred.



**GARDEN WARBLER** *Sylvia borin*. Bred in LW, a maximum of four pairs being present in the wood as a whole (up to 2 within the reserve). No clear choice of habitat, and territories overlapped with those of the next species, but sites occupied all had dense shrub layers with taller trees. In 1982 two pairs occupied the east central area, close together and at least one was here in 1980. The western 'tongue' was used in three years and the south-western edge in two, this last pair straddling the wood's boundary into the adjoining scrub. In general only noted when singing (first dates 10.5.80, 4.5.81, 7.5.82, last dates 19.6.79, 25.6.80, 21.6.81, 27.6.82). Presumed migrants were the only bird seen in VB, a singing bird on the bushy bank west of the hut on 13.5.79, and one on 10.5.80 in LW outside subsequently occupied territories. (One also seen feeding on berries of wayfaring tree at west end of VB on 27.8.83 with up to 7 Blackcaps.)

**BLACKCAP** *Sylvia atricapilla*. Seven pairs nested in LW reserve each year with two or three more in the wood generally. Fairly evenly distributed, tending to avoid the edges and clearings, preferring areas with plenty of tall trees but also some undergrowth. Only two April records: 29.4.79 (singing) and 25.4.82 (silent) and there appeared to be a rather gradual build-up through the first half of May. Continued singing to mid July, but hard to see in the wood from then on. Position in VB rather odd, with singing birds appearing in late June and taking up residence in the areas with trees east and west of the hut until mid July. For instance one 27.6.79 - 8.7.79, one on 5.7.80, one 19.6.82 - 3.7.82, one 20.6.82 - 10.7.82, this last qualifying for inclusion in Table 2. I can only assume that these were failed or non-breeding birds. Dispersing or migrant birds were seen at the southern edge of LW on 23.8.80 and in the centre of VB on 10.7.82 and 1.8.82.

**WOOD WARBLER** *Phylloscopus sibilatrix*. Migrant bird seen singing in LW on 3.5.80. Known to breed elsewhere on Mendip (e.g. Mendip Lodge Wood).

**CHIFFCHAFF** *Phylloscopus collybita*. All the territories in LW were within the reserve boundaries, two to four pairs being noted, and they tended to be around fairly open areas with a few tall trees which provided song posts. The coppiced areas were thus favoured by this species. Territorial birds arrived surprisingly late, periods of song by territorial males being:

29.4.79 - 17.6.79	14.4.80 - 6.6.80	14.5.82 - 19.6.82
29.4.79 - 27.6.79	14.4.80 - 5.7.80	25.5.82 - 3.7.82
8.5.79 - 8.7.79	5.5.80 - 25.6.80	
	10.5.80 - 6.6.80	

A bird singing in LW on 6.4.80 was outside subsequently occupied territories and was possibly a passage bird. Although not seen earlier, from mid July and through August and September birds appeared widely in and around VB, often with mixed parties of tits and other small birds. One October record, a single near the VB hut on 4.10.80.

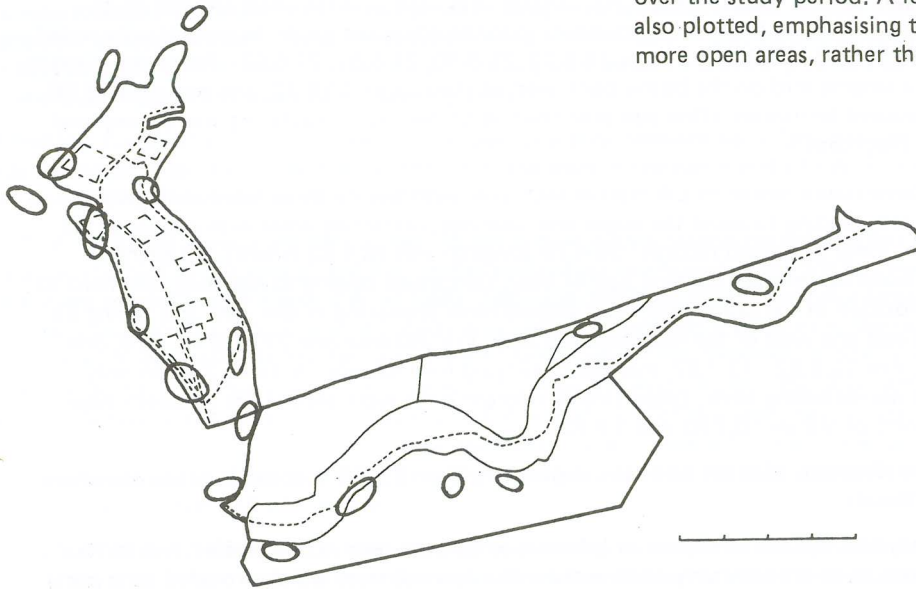
**WILLOW WARBLER** *Phylloscopus trochilus*. Characteristic and widespread breeding bird of both reserves with five or six pairs in each (see Fig. 5). Most birds took up their territories in the second half of April and the first week of May, with odd birds to mid May (earliest dates 6.4.80, 5.4.81, 10.4.82). In VB territories were anywhere with a few bushes to provide song posts and at least some ground cover, i.e. most of the area. In and around LW Willow Warblers were also numerous, although the pairs noted in Table 2 were all along the edges of the reserve, with more pairs outside. For instance in 1982 another seven pairs held territories just outside the reserve boundaries, the western 'tongue' and the plantation being favoured. The birds seemed to prefer an open aspect, coppicing within the wood not apparently being enough to attract them. Song petered out in early July, but birds were commonly seen in both LW and especially VB until the end of August.

**GOLDCREST** *Regulus regulus*. Bred each year in the pine plantation just north of LW, and probably also west of Lower Farm where there are some yew trees. In 1982 (and probably also in 1981) the two pairs within LW proper were associated with old ivy-covered trees which no doubt provided nest sites. Song often very irregular, but occurred from mid March to the end of June. From mid August to mid March found more widely in LW and in the bushier parts of VB, often with parties of tits, tending to favour the hawthorns and bracken for feeding. Never more than eight on any one day, usually fewer, although apparently not badly affected by the severe 1981/82 winter.

**SPOTTED FLYCATCHER** *Muscicapa striata*. Not proved to nest within the reserves but undoubtedly does so nearby, much of the woodland in LW being too dense for this species. On two dates (6th and 11th) in early



Fig. 5. Willow Warbler territories in LW and VB in 1982, showing a fairly typical pattern of territory occupation over the study period. A few adjoining territories are also plotted, emphasising this species' preference for more open areas, rather than continuous woodland.



June 1980 one sang in a coppiced area near the LW swallet but was not noted subsequently. In 1982 a pair was seen at the north end of LW within the reserve on 14.5.82, a single bird being present until 23.5.82 with a single not far away on 20.6.82, and again on 3.7.82. These sightings are consistent with a presumed pair in the garden of Lower Farm, where the habitat looks ideal. Spotted Flycatchers are known to be irregular in occurrence at their actual nest sites between arrival in late May and egg-laying in early June (Ryves 1943, Summers-Smith 1952). Another pair was present in the more open woodland of the western 'tongue' from 14.5.82 until 27.6.82 and probably bred. More characteristic as a post-breeding species, as from mid July to the end of August each year family parties (up to 4 birds) or singles would appear around the hut area of VB or at the edges of LW, and could also be seen with mixed parties of tits, Chaffinches, etc in the surrounding areas, not having been seen previously all summer.

**PIED FLYCATCHER** *Ficedula hypoleuca*. A singing male was present on 10 & 11.5.82 displaying around holes in old oak trees in LW, but failed to attract a mate and was not seen subsequently. Other observers occasionally noted this species in LW and VB in early May in other years.

**LONG-TAILED TIT** *Aegithalos caudatus*. A marginal species in LW and not recorded at all from VB during the study period. Not seen until 28.1.80 (after the coldish winter of 1978/79) when three appeared in the middle of LW. On 10.5.80 one was near Lower Farm and on 25.6.80 there was a family party at the far end of the western 'tongue', indicating breeding probably in the bushier areas north and west of the wood. Apart from three on one date in January 1981, the next sighting was a pair in early April, found building a nest 10m up a beech tree near the swallet in LW, but heavy snow at the end of April put paid to this nesting attempt. They seemed to survive the 1981/82 winter well, with several sightings of up to seven feeding in various parts of LW from mid October to mid April 1982. (Party of 15 with other tits in central VB on 27.8.83, together with a few other sightings, indicates continuing increase.)

**MARSH TIT** *Parus palustris*. Two or three pairs bred annually in LW, always in roughly the same areas each summer (see Fig. 6 for 1982), all within the reserve, although another pair was probably present north-west of Lower Farm in 1980 and 1981. The favoured areas all had a well developed shrub layer where the birds spent much time feeding, plus a good number of semi-mature trees to provide nesting sites: one nest



found was in a hole in a young ash tree. This was one of the more truly resident species as far as the wood was concerned, birds being seen regularly at all times of the year, and almost invariably in or close to their nesting territories, song being heard from late January. Even on 16.1.82 when the wood was still full of snow after a week of intense cold, one pair was on site although most other passerines had disappeared. In VB the very western end fringed the territory of a pair based in BR, with birds occasionally appearing in the study area. Otherwise singles were seen in the eastern half of the valley, feeding in bushy areas, on 9.12.79, 28.1.80, 4.10.80 and 29.8.81, indicating the wandering period of young birds.

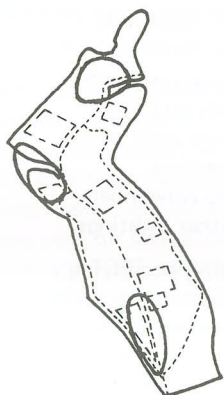


Fig.6. Three typical Marsh Tit territories in LW, the ones in fact occupied in 1982, although each year the pattern was very similar.

**WILLOW TIT *Parus montanus*.** Proved to breed in LW reserve in 1980, when a pair was seen in larches on the central east side on 14.4.80 and 11.5.80, with a family of at least three young there on 6.6.80. This species is very local on Mendip, mainly being associated with extensive pine plantations such as at Stock Hill, so it was a slight surprise to find it in a mainly deciduous wood. However, it is likely that the nest was in one of several rotting stumps in this area. I had no more sightings within the wood until 20.3.81 when a pair took up apparent residence in the western 'tongue', outside the reserve, being seen intermittently most months to the end of the year but with no firm evidence of breeding. Unlike the position in 1980, the birds overlapped Marsh Tit territories, the two species occasionally being seen together in the same bush. There was no clear difference in habitat, although the Willow Tits ventured to the edge of the wood and were seen in deep ground vegetation rather more frequently. A pair continued to be seen irregularly in the same general area in early 1982, and on 20.6.82 I found a family party of recently fledged birds just within the reserve, seeing them again on 27.6.82 and 3.7.82. In addition I saw single birds feeding perhaps more typically in the plantation at the northern edge of the wood, on two dates in June and July 1979 and again in March and April 1982. Whether these were birds from within the wood or from an unknown breeding pair north of the reserve it is difficult to say although I suspect the latter. A group of five birds feeding in a hedgerow  $\frac{1}{2}$  km north-west of Lower Farm on 25.8.80 may or may not have been the ones from LW. At no time during the study period did I hear any definite song, although this is not unusual for this species when at low density (but song heard in June 1983 in western 'tongue' where pair bred successfully.) In VB I saw singles by the south-west boundary on 14.4.80 and feeding around the bushes at the western end on 3.7.82 and 1.8.82. Taken in conjunction with a couple of other possible sightings I suspect that Willow Tits may also breed in BR where there are plenty of conifers and that these birds were wanderers from there.

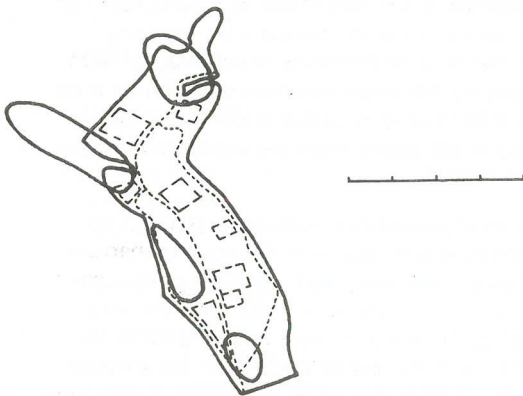
**COAL TIT *Parus ater*.** Difficult to be certain of exact status, with small apparently fluctuating population probably linked with overflow from larger numbers occurring in the pine plantations of BR and Rowberrow. Single pair associated with larches in south-east of LW reserve in 1979, 1980 and 1981. In 1981 another pair occupied the area around Rhino Rift. None were seen from early January to late June 1982 after the very cold winter. Apparent small influx including immatures (up to 5 birds) in late June each year and up to six could be seen almost anywhere in the wood, usually with other tits, until the end of December. Song in LW started in late March. From late August to mid March ones and twos could be found in any of the bushy areas in and around VB, the irregularity of their occurrences indicating wandering birds.



**BLUE TIT** *Parus caeruleus*. Up to seven pairs bred within LW reserve with one or two more pairs occurring elsewhere in the wood. Although territories varied somewhat in position from year to year the birds seemed to prefer areas with semi-mature trees containing nesting holes, with a fairly open shrub layer, often towards the edges of the wood and to a lesser extent near the clearings. Groups of up to ten could be seen in August but thereafter sightings became infrequent, particularly from mid November to late January. However, in November and December occasional parties of up to 15 moved through the shrub and tree layer, indicating that the wood formed part of a larger feeding area at this time. Birds were seen more frequently from late January, most pairs apparently establishing territories between early March and early April. Status in VB varied from year to year, no doubt reflecting this area as marginal habitat. Three main areas, all with plenty of hawthorn bushes, provided the majority of sightings. A pair bred at the very western end in 1980, this area having been used regularly by one or two birds in the previous winter (Sept-March). Apart from one bird in October 1980 there were no more sightings here until 15.5.82, when a pair again took up residence and bred. Another pair bred near the hut or in the copse to the north in 1980 and 1982, wintering birds again having been present on the banks east and west of the hut through 1979/80 and remaining until mid October in 1980. The 1982 birds arrived in mid March, no birds having been seen since the previous October. The bushes in the central area of VB held groups of two or three from August to mid November 1981, and five on 22.9.79, indicating perhaps the main period of dispersal, but provided no other sightings.

**GREAT TIT** *Parus major*. Up to five pairs bred in LW reserve, with others in the wood generally, occupying similar areas to the Blue Tit, but tending to prefer sites with a higher proportion of mature trees. Although not always present, rather more regularly seen throughout the winter, feeding in small numbers (max 4 on any one day), usually on the ground in the leaf litter almost anywhere in the wood. Birds seemed to be back on their territories from mid January, with song regular from mid February. In VB, most commonly seen from mid June through July when noisy family parties appeared, dispersing from breeding sites in LW and other nearby woodland. They fed almost anywhere bushes and ground cover were available, later joining the loose parties of Chaffinches and Willow Warblers that moved around the upper reaches of Cheddar Gorge. In 1980 a pair bred near the hut, but this seemed exceptional. From October onwards, odd birds could appear occasionally at any time through the winter but rarely stayed long, apparently preferring to feed on the ground under trees rather than in the bushes, parts of BR for instance attracting parties of up to ten birds in favoured spots.

**NUTHATCH** *Sitta europaea*. Two or three sites within LW reserve, and one (possibly two) just outside in the western 'tongue' (see Fig. 7). In all cases the common factor is the presence of mature trees for nesting and feeding. Although not necessarily visible on every visit, the birds appeared to be very resident, only venturing a little more widely within the wood when the young were fledged. For instance at least two birds were present on 16.1.82 after a week of intense cold with heavy snow. Not recorded from VB although one bird was heard calling from the copse north of the hut on 3.7.82, indicating some sort of dispersal at this time.



**Fig. 7.** Areas in LW favoured by Nuthatches throughout the year, all sites containing a relatively high proportion of the wood's mature trees. The maximum of four pairs in the wood as a whole always bred within these areas.



**TREECREEPER** *Certhia familiaris*. Not recorded until 10.5.80 when one seen at the top entrance of LW, but a family party north of Lower Farm on 25.6.80 indicated breeding somewhere in the northern end of the wood outside the reserve. On 24.1.81 I found one in the western 'tongue', again outside the reserve, and a pair bred in an old oak in this area in the following summer, nest building being observed on 5.4.81 and the pair being seen several times from March to June. Isolated scattered sightings of singles in October and November 1981 and two in January and February 1982 indicated that birds were remaining in the wood at least some of the winter and in 1982 two pairs, possibly three, bred. One was again outside the reserve but one was near the top entrance with possibly another pair between the other two. A preference for more mature sheltered woodland for breeding is indicated, the coppiced areas with younger trees being used only by wandering winter birds. Only once noted from VB: a single bird in trees by the hut on 21.12.80 later seen flying off towards the copse to the north.

**JAY** *Garrulus glandarius*. Seen fairly frequently in LW from late March to late August at widely scattered locations throughout the wood, the bird's secretive nature making it difficult to pin down exactly how many were present. A minimum of one and a maximum of three pairs bred each year in the wood as a whole, showing some preference for the thicker old coppice avoided by most other species. Status in the winter genuinely different from year to year, possibly reflecting variations in local food supply. Two birds were seen on several occasions in the wood and at the western end of VB from September 1979 to February 1980, with four birds feeding together in the field just south-east of LW on 28.1.80. However, although at least two were present in August 1981, none were seen again through the autumn and winter despite good coverage until a pair appeared on 18.3.82. On 12.10.80 one was seen flying over the west end of VB towards LW, later returning carrying an acorn towards BR, no doubt on a food-hiding mission. Apart from such occasional sightings at the western end, not otherwise recorded from VB.

**MAGPIE** *Pica pica*. A characteristic bird of the open areas in and around VB and LW, and in fact of much of the farmed Mendip plateau generally. Widely scattered in VB and the surrounding farmland throughout the year with status apparently stable irrespective of the weather. Variations in Table 2 indicate the amount of effort put into nest-searching more than anything else. Most nests in VB (where up to 3 pairs) were about 3m up in hawthorn bushes, although one nest was 20m up in one of the trees around Charterhouse Warren Farm. In 1982 distances between nests in one loose group in VB were 270m, 270m, 300m and 340m. Magpies also nested at the very edges of LW, there being at least five pairs in 1982 (2 happened to be within the reserve) again mainly in patches of dense hawthorn and blackthorn. Nest spacings of four along the western edge were 200m, 240m and 340m. These birds perched in the trees near their nests but otherwise fed outside the wood. Outside the breeding season, Magpies were usually seen in groups of one to four, often in pairs, but from late January to early March each year gatherings of up to 16 occurred, the fields east of LW being a favoured area. No obvious display was noted but it gave a chance of estimating the total population of the immediate area: maxima seen on any one day in the three winters were 17, 16 and 13 respectively.

**JACKDAW** *Corvus monedula*. Several hundred pairs breed on the cliffs of Cheddar Gorge and feeding birds moving to and fro account for most sightings in the study area. The numbers seen varied, birds being least evident from mid March to mid June, then frequently feeding on the grassy slopes of VB until late July, while during the rest of the year the fields all around would hold mixed flocks of Rooks and Jackdaws (up to 500) the numbers depending on the crop more than anything else. Stubble fields were favoured whenever available. In addition a small population (1 or 2 pairs) nested each year in holes in a few ivy-covered trees near the top entrance of LW. Arrival dates for these pairs were 30.3.80, 20.3.81 (although apparently prospecting birds were seen on a couple of mild days in December and January but not in February) and 27.2.82, nest-building being observed in early April, the birds deserting the area as soon as the young were fledged (last dates 17.6.79, 11.6.80, 20.6.82).

**ROOK** *Corvus frugilegus*. There are rookeries about 1 km north and 2 km south of VB and birds from these were regularly seen flying over and feeding in the nearby fields though very rarely actually landing within LW and VB themselves. General pattern much as Jackdaw, with fewest sightings from early April to late June, but no particular pattern at other times of the year, though not attracted to the grassy slopes of VB and showing a preference for stubble fields.



**CARRION CROW** *Corvus corone*. Nested in LW every year, but only in 1982 did I make a systematic search for nests (5 pairs in the wood as a whole, 3 within the reserve) hence the apparent increase shown in Table 2. In fact status probably did not change much over the period. Birds using LW present in the general vicinity, feeding in the nearby fields, all year, even in the most severe weather. Trees used as nest sites were Scots pine, oak, ash, sycamore and beech, some nests being reused in subsequent seasons. Eggs were laid mid April with young fledging in late May. As far as VB was concerned, two or three pairs used tall trees just outside the reserve boundaries, preferring to feed in the fields rather than in the valley itself, although it is possible that the odd pair nested unseen in a patch of hawthorns.

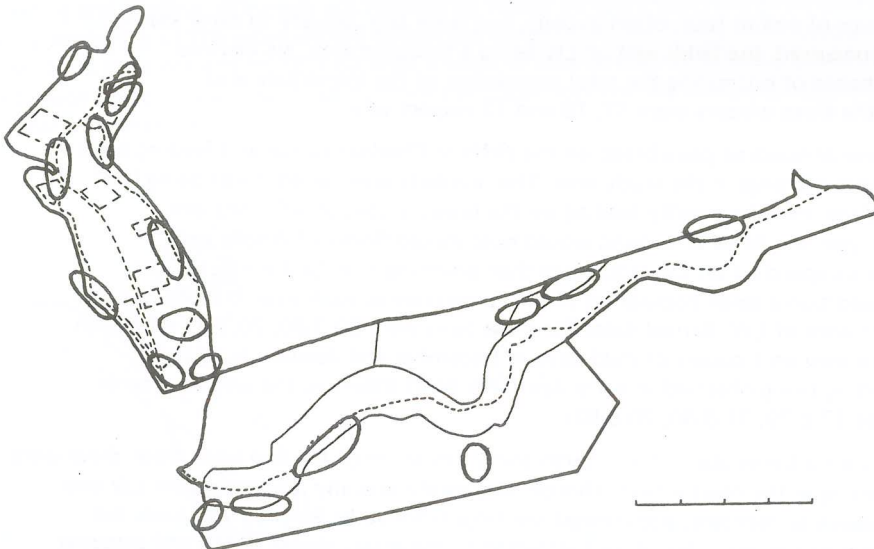
**RAVEN** *Corvus corax*. Only sighting was of one bird flying south-west low over the southern end of LW on 25.4.82, hotly pursued by the pair of Carrion Crows nesting in that area.

**STARLING** *Sturnus vulgaris*. Not particularly common in this part of Mendip. From January to mid March flocks of up to 300 could be seen flying over, occasionally landing in the tall trees at the north end of LW, the farmland to the south-east and the north-west of the study area being the nearest regular feeding sites. In June noisy parties of mainly juvenile birds also occurred in these fields and could be seen flying over. Remarkably rarely noted at other times, the only April/May record being one at Lower Farm on 7.5.82, and not often noted in the autumn or early winter, then only birds passing overhead.

**HOUSE SPARROW** *Passer domesticus*. Another rarity, the only record being one at the VB hut on 25.6.80. A few pairs breed at Charterhouse church, no doubt the source of this one.

**CHAFFINCH** *Fringilla coelebs*. Widespread breeding bird throughout the study area, most birds leaving in winter. In LW the territories (up to 10) were scattered through the wood, showing some preference for tall songposts near clearings or the edge of the wood. In VB territories (six or seven) were also well scattered, the presence of groups of hawthorns to provide song and nest sites being the main requirement (see Fig. 8). From September to the end of January only the occasional bird flying over was to be seen, apart from a few (up to

**Fig. 8.** Pattern of Chaffinch territories in LW and VB in 1980, showing wide distribution to be expected of the most numerous breeding species in the study area.





10) which spent at least part of the winter in the sheltered valley north of the VB hut. The only major exception was a flock of 50 which landed at the west end of VB on 5.11.79, possibly migrants. LW was apparently completely vacated. British Chaffinches are supposed to be sedentary, and there are small flocks of 20-30 to be found dotted around the Mendip plateau, in kale fields, by sheltered hedges or under beech trees in the autumn, and these may contain local birds. The return in spring varied from year to year, probably dependent on the mean temperature (see Newton 1972). In 1980 a flock of 40 appeared on the east side of LW on 4 March but the first three territories were not established until the first few days of April. However, in 1982 one singing bird appeared on 7 February and on 27 February seven birds were in song, six territories being established by mid March and four more in the second week of April. It is likely, nevertheless, that birds noted before the end of March are not in their territories the whole time as a flock of 20 was present on the east side of the wood on 18.3.82. Arrival in VB seemed a little later, singing birds not appearing until mid April in 1982, although there was occasional song from the wintering birds near the hut on mild days in February and March. In July and August birds became difficult to see, although groups of up to six joined the mixed parties of tits and other species feeding in LW and VB.

**GREENFINCH** *Carduelis chloris*. Singles seen on two dates in June 1979 on the western edge of LW and four were present in the middle of the wood on 20.6.82, but with no firm evidence of breeding. Otherwise one to three birds seen over VB on only eight widely scattered dates in the study period, occasionally landing briefly in the bushes.

**GOLDFINCH** *Carduelis carduelis*. General pattern fairly consistent from year to year. Occasional singles flew over from November to January and again in mid April, these latter probably being local breeders taking up residence. It is likely that in 1980 and 1982 a pair bred near Manor Farm, from sightings and intermittent song records there in April and May. From mid June to the end of August family parties (ads + 2 or 3 young) would come to feed on the profusion of thistles on the slopes each side of the central part of VB. Song was occasionally heard here and at the western end of VB in July and it is possible that second broods could have been raised here in 1980, 1981 or 1982. On 4.10.80, three groups of up to four birds were seen flying over VB, possibly migrants. Most sightings came from VB, the odd bird landing at the edges of LW but not staying long.

**SISKIN** *Carduelis spinus*. A group of eight birds low over the centre of VB on 12.10.80 were apparent migrants. The only other sighting was one high over the western edge of LW at dusk on 5.12.81 on its way to roost somewhere in the vicinity.

**LINNET** *Carduelis cannabina*. In 1979 one pair was centred on a patch of gorse and brambles on the hillside north-east of the main bend in VB where a pair and a singing male were seen on three dates in late April and early May. No evidence of breeding in any other year and primarily seen in August and September when parties of up to 40 would appear on the rougher parts of the slopes, feeding on thistle and other seeds. Smaller numbers seen in October, usually just passing over, and apart from a couple flying over in April 1982, no other records.

**REDPOLL** *Carduelis flammea*. A male circling and singing in flight appeared over the east side of LW on 5.5.79 and again on 14.4.80 and 11.5.80 but there was no other evidence of breeding. Birds are reported in the summer in the Rowberrow plantations where there is suitable breeding habitat and these were no doubt wanderers from there. A party of five over the west end of VB and one over LW on 12.10.80 were migrants.

**BULLFINCH** *Pyrrhula pyrrhula*. Apart from one occasion in 1981 the pairs which bred all did so just outside the reserve boundaries and so were not covered thoroughly every year. One favoured site was an area of dense blackthorns at the far end of LW's western 'tongue', this being used by one pair in 1981 and 1982. A similar dense area near Rhino Rift was frequented every year by feeding birds although breeding was not proved. In 1982 another pair bred at the edge of the conifer plantations at the north end of LW, feeding birds also using the bushy area west of Lower Farm. In VB, a pair was present around dense bushes at the western end in 1980 and 1981, young being seen here in 1981. Birds were regularly seen at these sites at all times of the year, usually in pairs, though by no means on every visit. Birds occasionally turned up in other parts of VB, the general impression being of resident birds just wandering locally depending on food supplies. The maximum seen together was six on 21.12.80 on the west side of LW, and one was present on 16.1.82 after the very cold weather.

**YELLOWHAMMER** *Emberiza citrinella*. Summer visitor to VB, codominant with Chaffinch and Willow Warbler, preferring the more open slopes with some bracken and scattered hawthorns, using the latter as songposts. Most pairs (up to 7) were in the western half of VB, which appears to provide ideal habitat (see Fig. 9). Although the occasional bird would land and even sing in February or March, it was not normally until early April that the majority of birds arrived, with song most noticeable in June and July, when other species had fallen silent. Birds were still plentiful (up to 13 seen on a visit) through August, but numbers dropped away thereafter, although birds were regularly seen to mid October. From then until the return in March, Yellowhammers were rarely seen, only the occasional bird flying over, usually high up (as were the exceptional 40 on 16.1.82 during very cold weather). In general birds seem to desert the surrounding Mendip plateau in winter, though they may only go to the nearby lower ground.

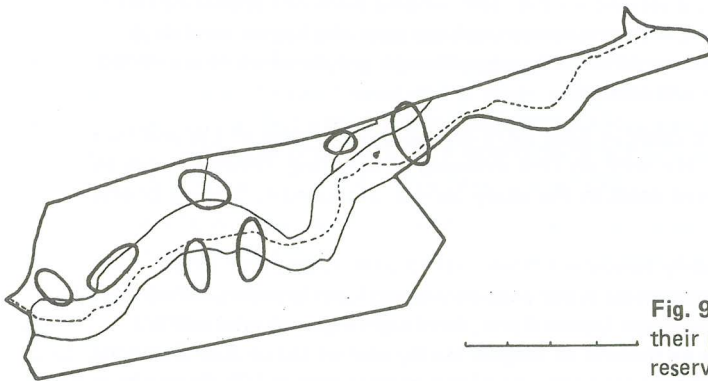


Fig. 9. Yellowhammer territories in VB in 1980, showing their preference for the more open western half of the reserve.

**CORN BUNTING** *Miliaria calandra*. Two flying over the central 'bend' of VB on 16.6.79 and a singing male there chasing a second bird on 27.6.79 indicated breeding but they were not seen subsequently. A single was seen perched on telegraph wires near the hut on 3.8.80. There is a small population centred around Yoxter Farm about 1½ km south-east, in an area of extensive cereal crops.

#### Acknowledgements

Thanks are due to the Somerset Trust for Nature Conservation who suggested that I undertake this survey, in particular to Bill Butcher, the then Project Officer for the Mendip Nature Conservation Area. I would also like to thank Chris and Keith Billingham, the Reserve Managers of Long Wood, who made many valuable comments on an earlier draft of this paper, as well as helping me in a variety of ways while fieldwork was in progress. Robin Prytherch drew the maps in his usual inimitable style.

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**Plate 3.** Upper: southern end of Long Wood viewed from western end of Velvet Bottom. The relative steepness of the slopes on which the trees grow is clearly visible. Lower: western section of Velvet Bottom, looking east, showing grassy levels bounded by a series of rubble dams. The absence of bushes and trees on the valley floor is due to the high lead content of the soil (*photos: Ken Hall*).

**Plate 4** (overleaf). Upper: the central bend of Velvet Bottom, looking west. Long Wood can be seen in the distance at the top right of the picture. The open nature of the northern slopes contrasts with the bracken and hawthorn on the southern ones. Middle: looking east from the central bend of Velvet Bottom. The grass-covered mounds and hollows ('gruffy ground') resulting from abandoned lead mining hold a high population of rabbits. The bank to the left of the trees in the top centre of the picture is being replanted with oak saplings. Lower: top section of Velvet Bottom, looking west from the Charterhouse/Cheddar road. The Adventure Centre hut is visible in the middle distance; the bank to its right is also being planted with saplings (*photos: Ken Hall*).







## A SURVEY OF BREEDING LAPWINGS AND OTHER WADERS IN AVON

by David Payne

During the autumn of 1979 the Club embarked on several surveys of common birds. I was given the task of organising a study of Lapwings *Vanellus vanellus* and other waders in Avon throughout the breeding season over a three-year period from 1980 to 1982. No local survey of breeding waders had been made since the British Trust for Ornithology Atlas survey of 1968-72 which was based on the 10km squares of the National Grid. I decided to base my results on 1km squares of the same grid but asked for sightings to be located by a six-figure grid reference; this unique position for each sighting would it was hoped reduce the confusion when more than one observer reported from the same general area and would also enable breeding density to be estimated. Sightings were requested of any Lapwing during the period March to June in circumstances which indicated a pair holding territory, e.g. birds present at a site on two or more reasonably spaced visits, indulging in display flights, driving off predators, or with eggs or young. The final year of the survey coincided with a national survey of breeding waders, the Wet Meadows survey, organised by the BTO, which presented an extra opportunity to concentrate on areas which are not regularly watched as well as being known to contain good nesting conditions for Lapwings.

Interim reports on progress to the end of 1980 and 1981 were given in earlier issues of this journal (Payne 1981, 1982). The cumulative results are plotted in Fig. 1, which shows both the distribution and the numbers of breeding birds involved. Taking a 1km square to be 'occupied' irrespective of the number of pairs it contained, the results for the three years were:

1980	115 pairs in 42 squares
1981	137 pairs in 55 squares
1982	169 pairs in 61 squares

Combining the results gave an overall Lapwing breeding population of 279 pairs, distributed over 117 1km squares. There is no doubt that this figure overstates the breeding population in any one year, as in many cases birds would be present in only one year out of the three, possibly reappearing elsewhere if suitable habitat was created. This phenomenon applied particularly to birds using farmland sites. On the other hand the apparent increase over the period is due to the observers' better knowledge of suitable sites as the survey progressed, the 1982 figure probably being a reasonable minimum population for any one year.

As can be seen from Fig. 1 the final pattern confirmed the distribution that was becoming clear by the end of 1981. The main concentration was in the low-lying and coastal region from Avonmouth, Portbury and the Gordano valley, through Nailsea and Kenn Moors, to Clevedon and Woodspring Bay. This area held 147 pairs in 37 1km squares, at an average density of nearly 4 pairs per occupied square, making 52.7% of the total county population. In the south-east of the county another loosely defined breeding area exists in the triangle between Keynsham, Chew Valley Lake and Radstock. A combined total of 50 pairs bred here in 32 1km squares at an average density of 1.5 pairs per occupied square, forming 17.9% of the total population. The north and east of the county held a rather more scattered 13.3% of the population, the Cromhall area being a centre. Here 37 pairs in 24 1km squares were again at a density of 1.5 pairs per square. The position year by year is summarised in Table 1.

**Table 1.** Number of breeding pairs of Lapwings in the three main areas of population year by year.

	South-west		South-east		North-east	
	No of pairs	No of 1 km squares	No of pairs	No of 1km squares	No of pairs	No of 1km squares
1980	73	18	16	12	17	10
1981	75	21	28	16	18	11
1982	121	32	15	11	10	9



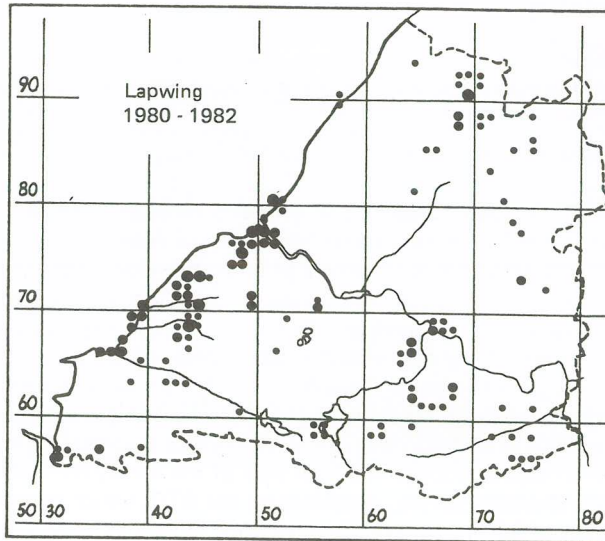


Fig. 1. Distribution of breeding Lapwings in Avon, 1980 - 1982. Each dot indicates a 1 km square in which Lapwings bred: • 1 or 2 pairs per square; ● 3 to 5 pairs per square; ● 6 or more pairs per square.

The areas occupied by the south-western population were almost exclusively of the 'lowland wet meadow' type, and this is clearly the most favoured habitat. The two inland groupings were mainly on arable and grazing farmland, and were far more prone to disturbance due to farming activities. Many of the sites were only used in one year out of the three, birds possibly moving to new sites several kilometres distant as one habitat became unsuitable and another was created. Within these two areas there were only three sites in south-east Avon that could be described as 'wet meadow' habitat.

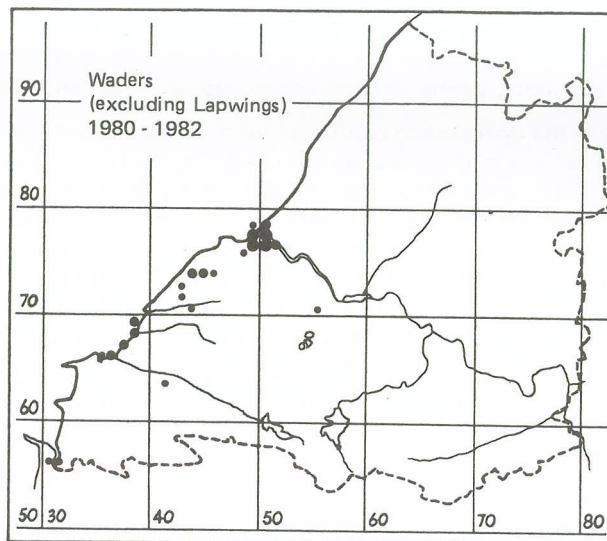


Fig. 2. Distribution of breeding waders, (see text), other than Lapwings, in Avon, 1980 - 1982. Each dot indicates a 1 km square in which they bred: • 1 or 2 pairs per square; ● 3 to 5 pairs per square; ● 6 or more pairs per square.



As can be seen from the map there were significant large blank areas, and although some clearly refer to built-up areas, the absence of Lapwings from others is difficult to explain. In particular the fact that there were so few on the coastal stretch north of Avonmouth is rather surprising, by comparison with the relatively large numbers found to the south of the river. Royal Portbury (West) Dock is undoubtedly the most densely populated breeding site in the county. Not only does it contain large stretches of suitable habitat, but dockland security ensures an absence of the normal pressures that disturb Lapwings breeding in lowland sites. Fig. 1 shows another concentration around Cromhall in north-east Avon, but no particular significance should be attached to this from a habitat point of view. In 1980 there were seven pairs on arable land in one 1km square but none in either of the two subsequent years. Loyalty to specific sites on arable land was far less marked than that to wet meadow sites.

During the three-year period a parallel survey of other breeding waders was carried out and for completeness the cumulative results are given below and mapped in Fig. 2.

Redshank <i>Tringa totanus</i>	65 pairs in 19 1km squares
Snipe <i>Gallinago gallinago</i>	17 pairs in 8 1km squares
Ringed Plover <i>Charadrius hiaticula</i>	5 pairs in 2 1km squares
Little Ringed Plover <i>Charadrius dubius</i>	3 pairs in 2 1km squares
Common Sandpiper <i>Actitis hypoleucos</i>	1 pair
Curlew <i>Numenius arquata</i>	5 pairs (non-breeding)
Oystercatcher <i>Haemotopus ostralegus</i>	2 pairs (non-breeding)

For further details the reports of the BTO 1982 Breeding Waders of Wet Meadows survey for Avon (Rose 1983) and nationally (Smith 1983) contain much material of interest, and although as far as the Lapwing is concerned only part of the population in southern Britain is confined to this particular habitat, the results for Avon show that at least in this area the presence of damp grassland is vital if breeding numbers are to be maintained.

#### Acknowledgements

Many thanks are due to all the Club members who spent many hours in the field providing the information for this report, and to Harvey Rose for collating the records from the Bristol Naturalists' Society.

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## NOTES

### Dusting by a Wren (with notes on bathing, sunning, and other behaviour)

The Wren *Troglodytes troglodytes* (family Troglodytidae), being small, secretive, and usually solitary, is extremely difficult to study in its day-to-day habits. Perhaps not surprisingly, E. A. Armstrong was able to include little information on comfort behaviour and related topics in his monograph of the species (*The Wren* 1955). He observed dusting (dust-bathing) only once and did not describe it. I had, therefore, to draw briefly on my own observations on the Wren in my account of dusting in the first edition of *A New Dictionary of Birds* (ed. A. Landsborough Thomson, 1964) and recently did so again for the revised *A Dictionary of Birds* (eds B. Campbell and E. Lack, in press). The notes involved are here published in full for the first time.

At Woodley, near Reading (Berkshire), where we lived during 1958-61, there was an east-facing sandy bank at the bottom of the garden on the edge of a line of fir trees and bushes that then separated us from Bulmershe North Lake. Here, at 17:30 BST on 14 July 1958 (a cool day with fitful sun). I was lucky to notice a Wren dusting in loose earth; it went on thus for about five minutes, giving way three or four times to House Sparrows *Passer domesticus* that also came and dusted there, before finally flying up into a bush nearby. It came back for 2-3 minutes at 19:50, dusting as before, but was disturbed by a leaf-warbler (probably a Willow Warbler *Phylloscopus trochilus*). It was back again at 20:10 for another session, staying some two minutes, and left voluntarily this time (ignoring a Blue Tit *Parus caeruleus* that came near). I watched out for it within the same period of the day on the 15th (when the weather was much the same as on the 14th) and on the 16th (when there were thunderstorms in the afternoon) but it did not appear. It was present again, however, by 20:10 on the 17th (a dull and rather cold day), staying for about eight minutes; twice, inquisitive House Sparrows visited the spot and startled the Wren but it stayed put. There was no sun on the bank on either day that the bird dusted there. No further dusting was seen at this site subsequently, but the same bird was found there sunning briefly on 18 July (see further, below).

The Wren (probably an independent juvenile) was very mouse-like while dusting, creeping quickly into place, changing position frequently, and scuttling away quickly afterwards. It had already settled well down into its dusting hollow on top of the bank when first seen on the 14th and, with tail spread widely, wings drooped loosely, contour feathers ruffled (including those of the head), and body pressed to the ground, it was busily driving fine earth amongst its feathers (*dust-tossing*) — scraping away with its feet at the earth beneath its body and shuffling its wings so that the tips flipped from side to side over the back. It lowered its head periodically and, as it continued to toss dust, it would peck at the ground from time to time and also, while lying almost right over on one side at times, rub the side of the face in the earth. It kept pausing in order to raise its head higher and look carefully about it before ducking down again to continue dusting; it would also pause inactively with the wings drooped and tail fanned. Quite frequently too, it would scratch its head rapidly, using the typical passerine indirect ('over-wing') method; and it preened briefly under its primaries at least once. I soon discovered that a typical sequence of dusting went like this: the bird would duck its head down, press its body against the ground, scrape vigorously, and shuffle its wings; it then raised its head and forebody, paused, and started the sequence again. All the movements were very rapid and vigorous, causing the bird to dislodge some quite big stones and frequently to slide down the bank.

On the 17th, the Wren was again already at its dusting spot when first seen. Initially, it performed on the slope, slipping down frequently. Soon, however, it used a quite deep hollow on the top of the bank, settling low with its breast pressed down, feathers ruffled, wings drooped, and tail spread, leg-scraping vigorously, wing shuffling (though not so frequently today), and continually changing direction by rotating in the hole with a side-to-side shuffling movement of the body and stretching its head and shoulders up to



keep a look-out. Its rapid, mouselike movements were visible several yards away and clearly exposed it to the danger of attracting a predator—hence, its marked caution. It head-scratched frequently, once leaving briefly to do so on a nearby perch (it also left a second time and perched inactively before returning). When it finally departed, it did so while repeatedly head-scratching at the side of its chin, with bill wide open, showing its yellowish or orange gape, and neck stretched.

I have not seen a Wren dust since. One was observed dusting briefly in the shade of a bush in a garden near Deal (Kent) on 17 June 1976, a quite hot day with bright sun and occasional slight breeze, by J. M. Stainton (*Brit. Birds* 71 (1978): 130-131): it 'burrowed and rotated with vigorous wing-flicking and fluffed body feathers, pausing at times with its head lifted and tail cocked'.

Both during and after dusting on 17 July 1958, the Wren's feathers were noted to be rather dishevelled, especially on the head (where there was a bare-looking patch on the left side of the crown) and breast. It could have been in moult but, more likely, it had probably bathed before dusting. It is relevant to note, therefore, that Robert Gillmor told me that a Wren in his garden (at Reading, on 30 November 1959) bathed 'gingerly' in a bird-bath, left to start drying and oiling, returned to bathe again, and then went to dust itself in the dry soil under his studio. The 'close coupling of dust- and water-bathing' in young Wrens was commented on by J. Nicolai in his paper on the various forms of 'bathing' shown by pigeons (Columbidae) (*J. Orn.* 103 (1962): 125-139).

Bathing, like dusting, seems to be seldom observed from Wrens in the wild (though both must, of course, be performed frequently). Armstrong saw bathing only once, the bird jumping in and out of shallow stream 'in a curious, nervous way'; soon after, he heard it giving alarm calls and a rat appeared—though he was not certain that the manner of bathing was related to the presence of a predator. This raises the question of which standard bathing method is used by the Wren. Is it really the 'in/out' method, as Armstrong's observation (and others he quoted) indicate, or is it more typically the 'stand-in' method—the one used by the majority of passerines?

While in/out bathing, a bird jumps into the water, does some quick bathing movements, and jumps straight out again, repeating the sequence several times; it is particularly characteristic of the babblers (Timaliidae) (see Simmons, *Avic. Mag.* 69 (1963): 183-193) and may be an adaptation for using deep and running water. While stand-in bathing, a bird remains standing in the water while it carries out a series of bathing movements; it may leave the water briefly from time to time, or interrupt its bathing by going off to start drying and oiling, but it does not keep popping in and out hectically like the typical specialist in/out bathers do. Each series typically consists of a forward ducking phase, in which the head and breast are dipped into the water while the body is shaken from side to side and both wings moved rapidly up and forward (*wing-flicking*), followed by a wallowing phase, in which the rear-end is submerged with the tail fanned while the wings alternately send spurts of water across the back (*wing-flipping*).

Like Armstrong, I have only seen a Wren bathe once: on 4 March 1981 in our garden at Oadby near Leicester (where we lived during 1975-81). At 14:16 GMT, it went to the base of a big ash tree to drink from a small, shallow puddle of water that had formed among the roots there, bathing at increasing intensity afterwards for about one minute. Initially, it hopped into the water only briefly, just to head-dip and shake, and hopped out again almost immediately—this a number of times. Soon, however, it stayed in the water longer and longer; at first, it left after performing only a single sequence of typical stand-in bathing movements, but then it carried out two, three, and finally four sequences at a time. After its bathe, the bird flew up into a low holly bush nearby to dry, using all the typical passerine movements (shaking etc.), with some shoulder-rubbing (a response to irritation in the eye) and much head-scratching—moving its head about under its foot at times as if oiling, though I did not notice it get any preen-oil from the oil-gland first. It started to move away after some two minutes, rubbing its face on a branch, and then departed in stages, performing further drying movements on the way. Thus, the Wren is revealed as a typical stand-in bather when using water shallow enough: whether the initial jumping in and out represented elements of true in/out bathing is not clear, for other small passerines that stand-in bathe (including the Robin *Erithacus rubecula*) will hop quickly in and out of the water at first if uncertain of its depth.



It may be noted therefore that, unlike some passerines that dust, e.g. larks (Alaudidae), wrens both dust and stand-in bathe (the larks only rain-bathe). In this, the wrens are like the Old World sparrows (Passeridae), the only other passerine group whose dusting behaviour I know well—having studied it in the House Sparrow (See *Ibis* 96 (1954): 478-481) and seen it once in the Spanish Sparrow *P. hispaniolensis* (a male, dusting with House Sparrows, at Fayid, Canal Zone, Egypt, 30 March 1950). In both groups, the wing action employed in dusting is similar to one used in stand-in bathing and may well be derived from it (see also Nicolai); whereas the sparrows, however, use the phase-1 movement (wing-flicking), the wrens use the phase-2 one (wing-flipping).

Finally, some comments on sunning (sun-bathing)—which seems to be observed more often in the Wren than dusting and bathing. According to Armstrong, who saw both adults and juveniles performing, Wrens 'sprawl in the sun with plumage fluffed and wings and tail spread' (see also R. C. Jackman in review by J. Gibb, *Brit. Birds* 40 (1947): 172-174). He then quoted at length an observation by J.E.M. Mellor of a bird which repeatedly sunned on a garden bench, evidently adopting what I call the 'full-spread-eagle' posture (Simmons, review in prep.); for photograph, see A.T. Moffett (*Birds* 9, No. 5 (1983): 38).

The Wrens I observed sunning adopted different postures. The first was on the bank at Woodley on 18 July 1958 (see above), performing in bright morning sun at 08:10 (together with a juvenile Robin, a Dunnock *Prunella modularis*, and three House Sparrows): it was 'fussing about', hopping here and there, disturbed by the other birds (the Robin eventually causing it to leave, after about eight minutes), but would settle at the edge of the bank near the trees for several seconds at a time in the 'wings-down' sunning posture with feathers ruffled and the wings drooped at its sides, not spread, exposing the back. The second was in Robert Gillmor's garden on 19 August 1958, a dry day with intermittent sun: at 11.00 BST. it was located on the inner edge of a concrete path backed by a wooden fence, lying over in the 'lateral' sunning posture side-on to the sun, blinking, with neck forward, head tilted, contour feathers erected (especially those of the rump), tail spread, and 'sun-wing' partly extended and raised to the horizontal; after a while, it repeatedly head-scratched then moved to another sunning spot further down the path. (We were carrying out experiments on anting that day but the Wren did not ant, nor are there any records of wrens of any species doing so.) The third was on the flat concrete roof of a shed in a neighbouring garden at Oadby at 08:30 BST on 30 May 1980: it was sitting down in the morning sun in a simple sunning posture with just its feathers ruffled, back to the sun at first and then facing it, doing 2-3 head-scratches and some preening; after a few minutes, it stood up, did a single wing-stretch, then a two-wing stretch, and pattered off.

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### Autumn feeding behaviour of a flock of Black Redstarts

The autumn influx of Black Redstarts *Phoenicurus ochrurus* into Cornwall varies in number from year to year. When they arrive the birds frequent the sandy and shingle beaches as well as coastal buildings and gardens, with fewer inland. In 1982, from 7th to 25 November, I had the opportunity to watch a flock of ten Black Redstarts, occasionally joined by a male Redstart *P. phoenicurus*, in Lamorna Cove. I was able to observe their feeding habits in this small confined area in relation to the variable weather conditions.

During the calm and comparatively mild days of the birds' stay Lamorna Cove was 'saturated' with winged insects, believed to be two-winged flies (Diptera), both flying and grounded, and these formed the main diet of the redstarts. Additionally they sought aphids (Hemiptera) and other unidentified invertebrates among the few bushes in the adjacent small gardens. After rain storms earthworms (Lumbricidae) sometimes surfaced on the nearby grass and earth patches and the redstarts took a number of thin ones measuring 4 - 5 cm in length. Sometimes the birds were attracted to rotting seaweed when it was strewn over the beach. They picked out small larvae from the sea-weed especially if Turnstones *Arenaria interpres* were actively disturbing the material, a feeding association which appeared to benefit the redstarts. I was particularly interested to visit Lamorna Cove when gale-force south-easterlies, accompanied by heavy rain, blew in from the English Channel, turning the cove into a wilderness of debris. No Black Redstarts were seen during the gales but following the storm their diet was markedly different. They resorted to molluscs, provisionally



identified as Least Winkles *Littorina neritoides*, stripped from the cracks and crevices of the rocks and left high on the shore in vast numbers among the seaweed debris, especially in the car park. These small molluscs were the main source of food for the birds until the winged insects reappeared. So the typically variable November weather gave the Black Redstarts several feeding opportunities and demonstrated their ability to adapt to the changing situation.

I wish to thank Dr Stella M. Turk for many practical suggestions concerning this note.

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### Migrating Yellow Wagtails with damaged legs

At Portland Bill, Dorset, on 8 October 1966, I observed a party of 15 Yellow Wagtails *Motacilla flava* avidly feeding on winged insects (mostly Diptera) which were being disturbed from the grass by a grazing cart horse. In their eagerness to obtain food they sometimes fed precariously only a few centimetres from the horse's hooves. They were often forced to make quick avoiding movements as the horse trod forward. I watched this feeding behaviour for at least 30 minutes and noticed that three of the wagtails were each hampered by a maimed leg, although they still managed to obtain a number of insects. It was difficult to be sure whether the wagtails' injuries had been inflicted by the horse or whether they had encountered some other hazard during their migration.

Bernard King

### Unfamiliar feeding behaviour of Redshank

On 29 July 1980 I observed unfamiliar feeding behaviour by seven Redshanks *Tringa totanus* at the Hayle Estuary, Cornwall. On a rising tide which was flooding the sandy and muddy banks the Redshanks forsook the shore where they normally fed and eagerly swam some nineteen metres into deep water where they appeared to feed avidly on insects (Diptera) which had alighted on the water. Their feeding behaviour was similar to phalaropes *Phalaropus* sp. : quickly twisting this way and that, picking up their prey from the surface. This interesting behaviour lasted some ten minutes after which the Redshanks suddenly came scurrying back to the shore; it appeared that they were becoming rather alarmed by the turbulence of the tide.

Bernard King

### Mandarins prospecting for nest sites in chimneys

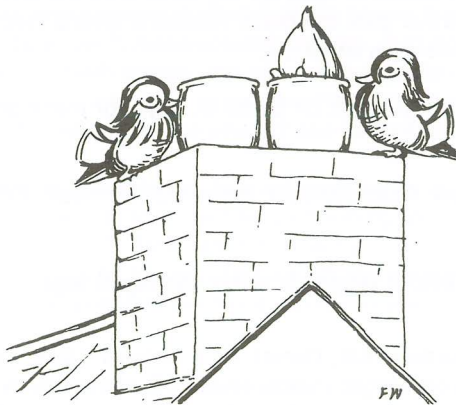
At 0700 on 10 April, 1983 I saw two drake Mandarins *Aix galericulata* sitting on the chimney stack of a cottage in the village of Tidpit, Hampshire. The birds sat each side of the chimney pot, approximately 9 metres above the ground. After several minutes a female Mandarin appeared out of the chimney pot and the two males jostled and manoeuvred to get close to her. The birds then flew to a nearby chimney on another cottage and the female entered the pot, but reappeared almost immediately and then all three birds flew out of sight. Later that day smoke was seen coming from both chimneys. The three birds had been present in the locality since early spring and were often seen well away from water associating with Collared Doves *Streptopelia decaocto* and House Sparrows *Passer domesticus* at grain stores. Soon after the above event one drake was found dead on the road and the remaining pair frequented a small river five kilometres away.

Although references to Mandarins nesting in chimneys are found in *The Naturalised Animals of the*



*British Isles* by C. Lever (Granada Publications, 1979) and *A Revised List of Hampshire and Isle of Wight Birds* by E. Cohen and J. Taverner (Oxford Illustrated Press, 1972) I can find no record of a specific sighting.

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### Apparent symetrical albinism in Song Thrush

On the high grassland at Peninnis Head, St. Mary's, Isles of Scilly on 15 October, 1976, a striking, beautifully plumaged Song Thrush *Turdus philomelos* was seen by us and a number of other observers. The whole of its head and face was spotted with large irregular white blobs, intermixed with very pale plum-brown feathers, this colour extending over the other dark areas of the thrush. There were a few white bars on the mantle and back. The wing and tail patterns were striking: a clear white band, some 5 mm wide, extended along both the leading and trailing edges of its wings and the outer tail feathers were white. The inner wings were peppered with small white markings. Its underparts were generally whitish. The iris colour was not clearly seen, but the bill and feet were normal.

In an analysis of 3134 records of albinism in British birds Bryan Sage showed that 29% related to the thrushes and chats (Turdidae) (*Brit. Birds* 56 (1963): 409-416). Within its family the Song Thrush showed the third highest incidence of albinism. In an earlier paper Sage stated that ... "Partial or incomplete albinism may be symetrical or asymetrical, the latter being the most frequent" ... (*Brit. Birds* 55 (1962): 201-225). I have not managed to find a previous record that specifically refers to symetrical albinism in the Song Thrush. In his 1962 paper Sage discussed the causes and effects of albinism and melanism in birds. Malcolm Sainsbury has also written a brief introduction to colour, albinism and melanism in birds (*Bristol Orn.* 6 (1973): 29).

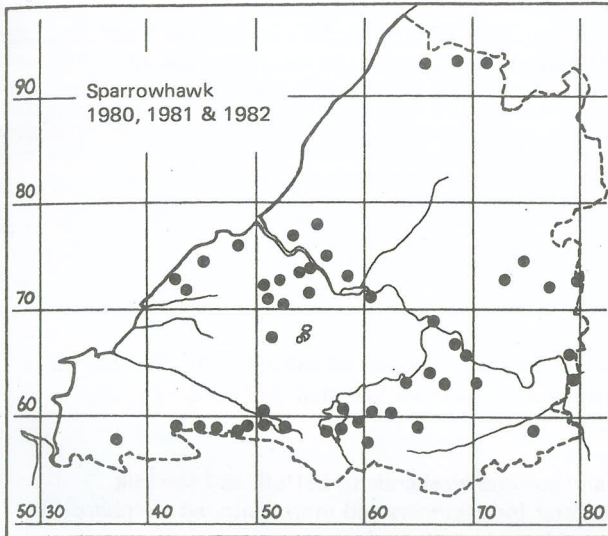
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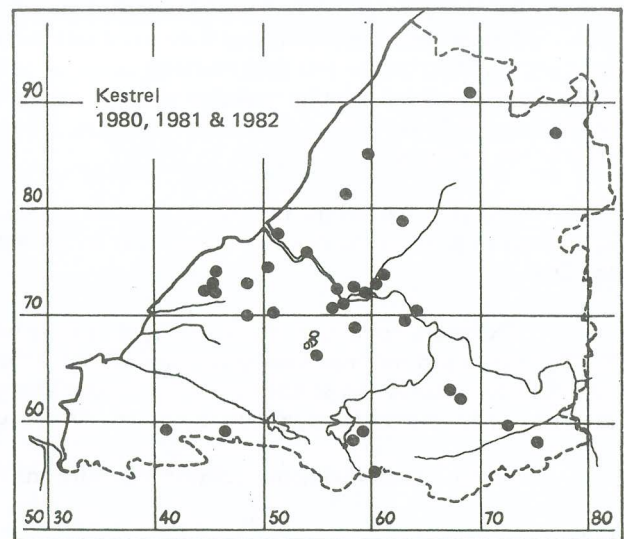
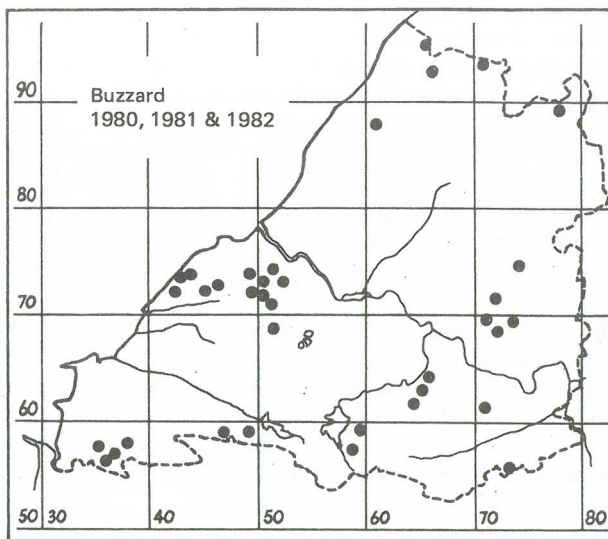
## FIELDWORK, 1982

### Breeding season Sparrowhawks, Buzzards and Kestrels

This Club survey, started in 1980, is scheduled to run for five years. The objective is to map the pairs of Sparrowhawks *Accipiter nisus*, Buzzards *Buteo buteo* and Kestrels *Falco tinnunculus* in Avon during the breeding season. A definition of those records which qualify and details of the information asked for from members was given with the account of the first year's results (*Bristol Orn.* 14 (1981): 138-9). As in the previous two years I extracted information from *Bird News* record slips but also received excellent co-operation from several members with a special interest in birds of prey.



Figs 1, 2 and 3. Breeding season records of pairs of Sparrowhawks, Buzzards and Kestrel respectively, in Avon, 1980, 1981 and 1982. Each dot indicates one pair of birds and is centred on the general area of their apparent territory. (Not all territories are occupied every year.)



The results for the third year were again encouraging. Figs 1, 2 and 3 show the records for the three years combined. There are still very large areas which have been poorly covered and I would like all members to study the gaps! You may know of a site and have assumed that someone else has sent in the record; so please check. The Kestrel map is the one which has changed least of all (barely at all) but is the one, surely, with the potential for more records to be added. Once again, I would like to thank all those members who have contributed. I hope you and many others will show as much interest in the coming years.

**SPARROWHAWK.** Records from March to July were asked for. Fig. 1 shows 51 definite pairs (12 for 1980, plus 24 for 1981, plus 15 for 1982). Add to these 22 suspected sites and the total is impressive, as many of these should be confirmed in the last two years.

**BUZZARD.** Records from February to July were asked for. Fig. 2 shows 36 definite pairs (22 for 1980, plus eight for 1981, plus six for 1982). Even though some of the formerly suspected sites have been confirmed yet more are suspected making 16 additional suspected sites. Time permitting, all of these should be confirmed by the end of the survey.



KESTREL. Records from March to July were asked for. Last year I inadvertently included a site which is actually in Somerset (the most south-westerly on Fig. 4 *Bristol Orn.* 15 (1982): 175). This is removed from Fig. 3 here, but as only one site was added in 1982 the correct total is now 35 pairs (17 for 1980, plus 17 (not 18) for 1981, plus one for 1982). Yet more sites are unconfirmed giving a total of 47 additional suspected sites.

Robin Prytherch.

## CLUB ACTIVITIES, 1982

Highlight of the year, at least for the 20 members who took part, was undoubtedly the Club holiday to Majorca. It was the first overseas visit in 10 years — and to the same island as on that first venture abroad. Surprisingly, six of the 1982 holidaymakers had also gone in 1972.

Less ambitious, but equally rewarding, were spring and autumn weekends to Suffolk and Norfolk respectively. And in between, there were 18 field meetings to cater for beginners and more seasoned members alike. Most were well supported; though one - in June - attracted just one member!

Indoor meetings maintained their usual satisfactory attendance level, even if the year got off to a bad start with the first indoor and field meetings being cancelled because of snow. John Marchant, who was to have spoken at the January meeting, was able to come instead in September to talk about Waders of the World. Membership in January stood at 493. By December it was slightly lower at 472, a minor drop in view of the state of the economy.

The year marked the first moves towards the formation, with Bristol Naturalists' Society, of a joint committee to produce the *Avon Bird Report* as an autonomous enterprise, separate from either the BNS or the Club.

Fieldwork continued, the birds of prey survey being on a Club basis, members also being involved in the BTO's 'waders and wet meadows' survey and Winter Atlas work. The sum of £250 was set aside as the Club's contribution towards new scrapes and other habitat improvements at CVL nature reserve and, in an effort to raise money for conservation, a Club raffle - the 200 Fund - was introduced.

Junior member William Duckworth became the first recipient of the Stanley Crick award.

### Indoor meetings

- 11.2.82 Members' evening
- 11.3.82 Field Identification and the Rarities Committee — Steve Madge
- 16.9.82 Waders of the World — John Marchant
- 14.10.82 The Stifftail Family - Mike Ounsted
- 11.11.82 How Birds Fly - Colin Pennycuik.
- 16.12.82 Annual General Meeting at Newman Hall

### Publications

*Bird News* continued to be published monthly. *Bristol Ornithology* 15 appeared in January 1983.

John Barber *Honorary Secretary*

