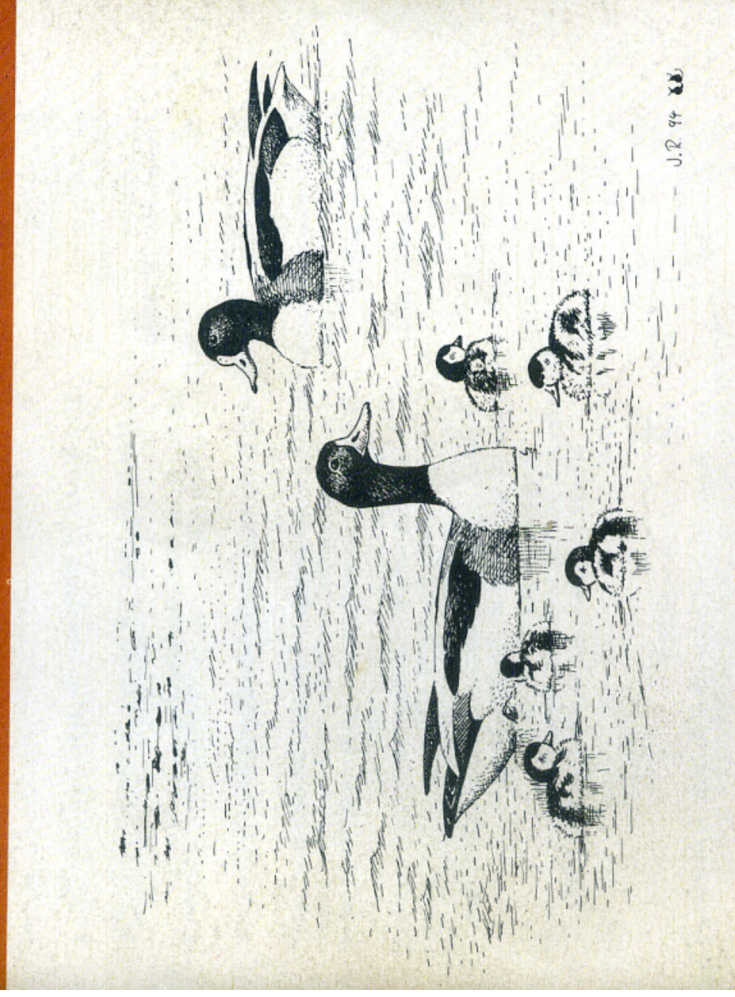


The Sussex Bird Report

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**THE SUSSEX BIRD REPORT
NUMBER FORTY-SIX, 1993**

*Recorder: O. Mitchell
Editor: G. C. M. Roberts*

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*Cover drawing of Shelduck
and text illustrations by John Reaney*

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Text illustrations:
Thanks are due to John Reaney for his drawings of White-fronted Goose (p. 18), Osprey (p. 34),
Kentish Plover (p. 40), Hoopoe (p. 66) and Bearded Tit (p. 83) as well as for the cover illustration.

Surveys:

Society members gave a great deal of their time during the year to a wide range of national, county and local surveys. Their support and contributions are acknowledged with thanks. Details of the surveys and the Sussex organisers follow.

Winter Gull Roost Census: The BTO national census of winter gull roosts (conducted at 10-yearly intervals) was carried out in January 1993. It was organised in West Sussex by Ms A. de Potter, 6 Brook Gardens, Emsworth, Hants, and in East Sussex by Dr B.J. Yates, 2 Watch Cottages, Nook Beach, Winchelsea, East Sussex. The results are presented in a paper on pages 123-126.

Heronry Census: This long-standing census is organised in Sussex by Dr A.B. Watson, 83 Buckingham Road, Shoreham-by-Sea, West Sussex. Counts of known heronries are given in the systematic list and observers are again thanked for their participation in this survey.

Welland Bird Survey (WeBS): This BTO/WWT/RSPB/JNCC survey was carried out between September 1993 and March 1994. Coastal counts were organised by C.D. Lowmass, 33 Barn Close, Seaford, East Sussex. Inland counts were organised by D.W. Codd, 12 Broome Close, Horsham, West Sussex. Thanks are due to the two survey organisers, for making this information available to the Society, and to the following counters:
S. Abrams, P.C. Bance, G. Barker, Mrs L. Bingley, G. Bimms, G.F. Boniface, D.P. Bowtell, Dr C. Brooks, D.J. Burgess, K.F. Burn, T. Callaway, G.A. Cockburn, D.W. Codd, C.B. Collins, D.E.G. Copeland, A. Dawnsy, Ms A. de Potter, R.D.M. Edgar, M. Emery, Mrs A.E. Everett, B.J. Fellows, A. Foster, M. Frisby, D.J. Funnell, R. Gardner, J. Glover, Miss H. Gordon, W.H.F. Green, R.R. Greenhalf, G. Griffin, R.G. Harris, J.L. Herring, D.C. Heryett, Mrs P. Hollow, R. Holman, M. Holmes, Miss A. Howes, Dr M.E. Kalaher, E. Kennard, S.J. Knapp, J. Knight, R. Knight, L. Laacey-Johnson, D.C. Lang, H.J.A. Lee, C.D. Lowmass, P.J.J. Luffingham, R. Morris, Mrs B.M. Mortlock, R.O.'Brien, T.D. Orrell, P. Outwaite, D.J. Pinkhurst, B. Putock, C.J. Raymond, B. Savage, A. & Mrs I.M. Simpson, Ms C. Skinner, D.I. Smith, Miss C.A. Taylor, J.E. Trowell, P.C. Turner, E.D. Urquhart, D. West, J.D. Weston, Mrs O. Westwood, C.D. Whitburn, R.L.C. Williamson, P.J. Wilson, Mr & Mrs H. Wingfield-Hayes, Mr & Mrs C.W. Woodburn, Dr B.J. Yates and S. Younger.

Common Birds Census: A number of members carry out annual breeding bird censuses for the BTO on a range of sites throughout the county.

Breeding Bird Survey: This new BTO annual national breeding bird survey, based on selected one km squares, is organised in Sussex by Dr A.B. Watson, 83 Buckingham Road, Shoreham-by-Sea, West Sussex.

Farmland Bunting Surveys: BTO national surveys of Corn Buntings in winter 1992/93 and of breeding Corn Buntings, Reed Buntings and Yellowhammers in 1993, both on randomly selected tetrads, were organised in Sussex by L. Manns, 5 Downsview Avenue, Storrington, West Sussex.

Survey of breeding Corn Buntings: This county survey was organised by L. Manns, as an extension of the BTO's national Farmland Bunting Survey. The fieldwork was extended into 1994 and the results should appear in the next Report.

Survey of breeding Grey Wagtails: This county survey was initially organised by the late S.W.M. Hughes, assisted by W.D. Hyde, Arundale, Coldwaltham, Pulborough, West Sussex; further help was given by L. Manns. The fieldwork was extended into 1994 and the results should appear in the Report for that year.

Pevensey Levels Wintering Bird Survey: Several members are taking part in this 3-year survey (to be completed in March 1995) organised by the RSPB (SE Region).

Amberley Wild Brooks annual monitoring: This annual monitoring for the Society and RSPB is covered by Dr M. Kalaher, Cherry House, Kithurst Lane, Storrington, West Sussex.

Co-ordination of Spring Seawatching records: The annual co-ordination of these records for the Society is carried out by Dr J.A. Newnham, 61 Grand Avenue, Worthing, West Sussex.

Cormorant roost counts: Simultaneous counts were carried out monthly from September 1992 to March 1993 at Chichester Gravel Pits and South Stoke, West Sussex, by A. Cox and R. Knight for the Cormorant Research Group.

We are grateful for summaries of detailed observations at Ashdown Forest from R. Harman and D. King, Beachy Head from R.D.M. Edgar, Bewl Water from P.C. Bance, Chichester Harbour from Ms A. de Potter, Icklesham from D.E. Crawley, Pagham Harbour from S.J. Knapp, Pett Level from J.A.B. Gale, Pulborough Brooks from T. Callaway and A. Cotton, Rye Harbour from Dr B.J. Yates, Selsey Bill from O. Mitchell and B.J. Carter, Splash Point from A.M. Wheeler, Thorney and Pilsey Islands from C.B. and Mrs M.A. Collins, Worthing from Dr J.A. Newnham and Weir Wood Reservoir from Mrs B. M. Mortlock.

Thanks are due to D.E. Crawley for continuing to maintain detailed records of ringing in the county and to all the ringers who contributed.

The Recorder is especially grateful to Dr J.A. Newnham and the following team of helpers for coding and inputting a large proportion of records onto the computer: T. Allen, B.R. Clay, J.E.S. Cooper, D.E. Crawley, Ms A. de Potter, J.J. Faichnie, D.J. Funnell, R.F. Rettke-Grover, J.L. Herring, Mrs C.F. King, D. King, R. Knight, S.J. Knapp, L. Manns, M.J. and Mrs M.E. Mason, Mrs B.M. Mortlock, R.T. Pepper, Mrs I.M. Simpson, I. Standivan, J. Whitman and Dr B.J. Yates.

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The majority of this Report was prepared on computer by members of the Society, thus considerably reducing production costs. We are grateful to all those who helped make this possible.

The first three days of the year were dry and very cold, but from the 4th, very disturbed west to south-westerlies prevailed for most of the month. The south was badly hit by gales on 13th, 23rd and 24th, but the weather was mild with maxima typically 12-14°C. On 25th, cold NW winds brought wintery showers to Sussex and the following night was frosty. The rest of the month was changeable, but mild and less windy.

The most notable birds remaining from 1992 were the **Black Brant** at Thorney, the regular adult **Glaucous Gull** at Selsey and a **Great Grey Shrike** at Amberley. Overwintering **Chiffchaffs** and **Black Redstarts** were widespread, at least 8 **Dartford Warblers**, 3 **Firecrests** and 31 **Short-eared Owls** were present in the county, along with 13 **Mediterranean Gulls** and 5 **Bitterns**. A maximum of 11 **Little Egrets** were at Thorney Island on 1st. A first-winter **Iceland Gull** was recorded at Selsey and Shoreham on 17th. A **Ferruginous Duck** was at Camber Pit from 3rd-5th. February was an outstandingly anticyclonic month with often widespread fog and persistent drizzle until 14th when a cold front crossed the UK from the west, bringing changeable weather for ten days. Active fronts crossing the country on 25th and 26th brought very cold northerlies with the first measurable rain of the month in the south. This was the driest February since 1959 with mean temperatures near normal.

The **Glaucous Gull** remained at Selsey until 21st and a maximum of 12 **Little Egrets** were recorded at Thorney on 16th. 16 **Pink-footed Geese** flew past Bexhill on 4th. A male **Red-crested Pochard** was seen at Glynde Reach Clay Pit on 14th. A maximum of 1035 **Wigeon** was in the Lower Cuckmere Valley and 5 **Velvet Scoter** off the Midrips. Return passage of **Brent Geese** commenced on 13th with the first SE winds, when 370 flew E in 1 hour. On 14th, 1770 flew past Bexhill. Two **pale-bellied Brent Geese** (*hirotta*) were present at East Head, Chichester Harbour on 9th and one in Pagham Harbour on 21st.

During March, S winds were frequent and rain was measured only on 21st-22nd and 30th-31st. Cold NE winds prevailed for the first few days and then an anticyclone moved east across England bringing dry and mild weather. Cold fronts on 20th/21st brought rain, then the weather was dry, sunny and cold until 26th, with night frosts. Monthly temperatures were near average.

A second-winter **Iceland Gull** visited Glyne Gap on 10th and a **Great Northern Diver** flew past Selsey Bill on 20th. **Red-breasted Merganser** numbers peaked at Pagham Harbour on 8th with 92 present and 3960 **Brent Geese** flew past on 9th. The first **Wheatear** was at Selsey Bill on 10th. By 13th **Chiffchaffs** were singing at various inland sites. Other first dates for migrants were **Willow Warbler** on 4th, **Ring Ouzel** on 11th, **Swallow** on 14th, **House Martin** on 21st and **Yellow Wagtail** on 24th. At least 4 **Firecrests** were at Beachy Head by 20th and 7 **Garganey** flew past Selsey. The first **Osprey** was seen at Bewl Water on 24th.

In marked contrast to February and March, April was a cyclonic month with a very disturbed spell until 13th with a good deal of rain. Rising pressure then produced a spell of fair weather, with 12.9 hours of sunshine recorded in Bognor on 20th. Cyclonic weather then returned with more rain and the month ended with NE winds. April was warmer, wetter and duller than average.

The first of 5 **Serins** recorded in the county during April flew over Selsey on 3rd and a **Manx Shearwater** flying past Seaford was followed by another 9 during the month. 112 **Arctic Skuas** flew past Seaford on 23rd-24th, contributing to a spring total of 294, the highest number since 1986. The first **Pomarine Skua** was seen on 24th April and 170 had been recorded by mid-May. Four **Hoopoes** visited the county, including a long-staying bird at Pulborough Brooks between 6-14th. A **Spotted Crane** was at Coldwaltham Brooks on 23rd. Two **Wrynecks** were seen and a maximum of 13 **Little Egrets** at Thorney Island was the last record in double figures until July. Many more migrants arrived in early April, first dates including **Whitethroat** on 9th, **Nightingale**, **Pied Flycatcher** and **Whinchat** on 10th, **Garden**

Warbler on 12, **Lesser Whitethroat** on 13th, **Reed Warbler** on 14th and **Wood Warbler** on 17th.

After a warm start to May, an anticyclonic spell followed with ground frosts. A few unsettled days were followed by humid easterlies between 22nd and 26th. Heavy rain preceded gales and further rain over the Bank Holiday weekend. Temperatures and sunshine were above average but rainfall was below normal.

A good month for rare and scarce birds with at least 2 **Montagu's Harriers**, 5 **Golden Orioles**, 2 more **Serins** and 8 **Temminck's Stints**, including an exceptional party of 7 in the Lower Cuckmere Valley on 8th. A **White Stork** roosted overnight on 2nd/3rd at Madehurst, a **Red-rumped Swallow** was seen at Beachy Head on 2nd and a **Broad-billed Sandpiper** was on the Ferry Pool at Sidlesham over the Bank Holiday weekend, the seventh Sussex record. On 11-12th, a **Yellow Wagtail** of the race '*thumbergi*' was briefly at Arlington Reservoir. An adult **Long-tailed Skua** flew past Seaford on 12th. The highlight of the month, however, was a new bird for the county, a **Bridled Tern** at Rye Harbour on 16th-17th, the 16th British record. A male **Kentish Plover** was at Selsey Bill on 21st. Beachy Head hosted a **Bee-eater** on 22nd and a female **Common Rosefinch** on 29th. An **Icterine Warbler** was found at Church Norton on 24th and a **Woodchat Shrike** at Pontins, Selsey on 25th. Tern passage included 1550 'Commic', 155 **Little Tern** and 389 **Black Tern** on 10th and 2004 'Commic' on 13th. 1200 **Swifts** were at Weir Wood Reservoir on 16th and the first fledged **Wheatears** were seen at Rye Harbour on 27th.

Thundery weather on 2nd June preceded a warm and sunny spell of high pressure. Wet weather mid-month was followed by a cool northerly flow with dry sunny days. The last four days of the month were very warm and sunny. Temperatures were 1.5°C above average and sunshine 10-15% above average.

An adult female **Red-backed Shrike** was seen at Bexhill on 1st, with a pair nearby on 4th/5th. Another female was at Ford on 5th. A **Marsh Warbler** was at Pulborough Brooks from 4th-10th, a **Woodchat Shrike** at Church Norton on 7th and a **Spoonbill** at Icklesham on 12th. Two **Serins** were recorded and 2 **Honey Buzzards**. A **Woodchat Shrike** was seen at Pontins, Selsey on 25th. A pair of **Cetti's Warblers** had 5 young on 15th and, in contrast, 2 **Brent Geese** were seen at Pagham on 20th.

An anticyclonic NW during the first week of July produced fine, warm weather but a deepening depression on 8th-9th brought a cold front across the country, with a dramatic temperature drop of 7-8°C. Cool, showery north-westerlies persisted over the next three days with cold nights. Then a week of depressions and active fronts brought frequent rain and thunder storms, but more humid weather and warmer nights. The rest of the month was changeable with rain and above average temperatures.

Ospreys were recorded at Weir Wood Reservoir on seven dates between 1-15 July and one flew over Selsey on 31st. A **Mediterranean Gull** was at Rye Harbour on 9th and another stayed at Littlehampton for a few days from 24th. A **Stone Curlew** was at Pett Level on 16th and a **Honey Buzzard** flew over Burgess Hill on 17th. A juvenile **Savi's Warbler** was recorded at Icklesham on 23rd. **Little Egret** numbers began to pick up again at Thorney Island, with 17 seen on 31st. 1-2 **Little Egrets** took up residence at Cuckmere from the end of the month until October and 1-2 birds were seen at Pulborough Brooks, with a maximum of 5 on 28th July.

The first half of August was cyclonic with westerlies, warm and wet at the start of the month, then warm with less rain. A vigorous depression crossed the country on 11th, with widespread rain and a secondary low brought prolonged heavy rain the following night. The second half of the month was largely anticyclonic and warm until 22nd, then cooler again until the end of the month when the Bank Holiday weekend was warm and bright. A cool and dry August.

No large falls of birds were recorded, but a good selection of unusual species was seen. The month started with an **Alpine Swift** over Sumping Down on 1st, a **Melodious Warbler** at Littlehampton Golf Course from 7-8th and 2 **Cory's Shearwaters** off Selsey Bill on 11th. Easterly winds on 14th may have been responsible for an **Aquatic Warbler** trapped at Charleston Reedbed. 200 **yellow-**

legged Herring Gulls were roosting in Pagham Harbour early in the month and 4 Savi's Warblers were ringed at Icklesham. Five Wrynecks were recorded and a juvenile Montagu's Harrier was seen on the Downs above Steyning. The Glaucous Gull returned to Selsey on 22nd and an Ortolan Bunting was seen at Sidlesham Ferry on 25-26th. Pagham Harbour also hosted a Tawny Pipit and a Bluethroat on 31st but the highlight of the month was an Oriental Pratincole at Middle Bridge, Pevensey Levels from 29-30th. This was the first record for Sussex and only the third British record. Little Egret numbers peaked at Thorney Island, with 57 on 31st.

The strongly cyclonic/easterly anomaly pattern present in September has only previously occurred this century in 1913 and 1976. In marked contrast to the rest of the month, the first week was anticyclonic and dry with sunshine. Rain was then characteristic for most of the month, with thunderstorms on 22nd. Temperatures were below normal.

There was an almost continuous flow of scarce birds into the county. Particularly notable was the number of migrant raptors, with Hobbies, Ospreys and Marsh Harriers widely reported and regular sightings of Buzzards and Honey Buzzards. During the month, 10 Wrynecks and 3 Lapland Buntings were seen and 3 Bluethroats were trapped at Icklesham. An adult Night Heron appeared at Rye Harbour on 10th. A Kentish Plover was recorded at Pett Pools on 14th and 3 at Pilsley Sands on 16th. Highlights in the Pagham Harbour area included a Black Stork flying over Sidlesham and Shoreham-by-Sea on 16th and a Buff-breasted Sandpiper at Sidlesham from 18th-23rd. Elsewhere, a White-rumped Sandpiper was at Pett Pools on 19th. 57 Little Egrets remained at Thorney.

A cyclonic first half of October brought heavy rain and thunder for the first two days and further unsettled weather with some hail and thunder. Heavy rain between 11th and 13th resulted in serious flooding. From 16th onwards, high pressure dominated and there was a spell of cold sunny weather. The last week was cloudy but dry. Mean temperatures were below average, but it was the sunniest October since 1971.

The predominantly easterly airflow brought plenty of continental migrants. Three Yellow-browed Warblers were recorded, 2 Wrynecks and a Hoopoe. 31 Little Stints were at Pilsley Sands on 3rd, the next day an Osprey was at the same site. A male Kentish Plover was at Rye Harbour shore on 9th. The highlight of the month was a juvenile male Subalpine Warbler at Pagham which stayed from 9th-16th, the fourth Sussex record. An immature Purple Heron flew over Sidlesham Ferry on 12th and may have been the same individual seen at Icklesham on 17th. Visible migration was most obvious on 15th - Hollingbury recorded 575 Chaffinches, 145 Skylarks, 14 Bramblings, 107 Siskins and 3 Ring Ouzels. A Little Auk found at Brighton Marina on 16th was picked up dead the next day. Also on 16th, the Black Brant returned to Thorney Island and a Great Grey Shrike was found in Ashdown Forest which remained until the end of the year. A very late Cuckoo was recorded at Widewater on 17th and a Red Kite flew over Balsdean on 18th. Two Cranes flew across the county on 24th. Little Egrets peaked at 32 at Thorney Island on 4th and one took up residence at Shoreham on 12th, remaining until 4th November.

November was dominated by a persistent anticyclone over Russia. After a dull, dry start, warm south-easterlies brought a sharp rise in temperature but then a more unsettled westerly regime brought alternating rain and sunshine. A rapid rise in pressure on 15th initiated a change to anticyclonic conditions with sunshine and cold weather. From 20th-22nd, an unstable easterly flow brought unusually cold weather with snow showers. A mild spell was then followed by dry, very cold south-easterlies with snow showers before wetter, warmer conditions returned at the end of the month.

Scarce birds included a Richard's Pipit at Church Norton on 3rd and a Pallas's Warbler at Climping on 7th. The last Hoopoe of the year was recorded at Southbourne on 19th, a very late date. 1000 Fieldfare were at Pevensey Levels on 11th and 5 Bewick's Swans in the Ouse Valley on 13th. Strong winds were probably responsible for an Arctic Skua over Pulborough Brooks on 15th. A Smew was found in Chichester Harbour mid-month and 48 Barnacle Geese flew in off the sea at

Norman's Bay, Pevensey Levels on 28th. A late Ring Ouzel was seen with 200 Blackbirds at Hollingbury on 20th and 3 House Martins at Chyngton Farm, Cuckmere on 21st. Two Bitterns were recorded. 37 Little Egrets were at Thorney Island on 1st.

December was a cyclonic month with mild westerlies during the first week, producing sunshine and showers. A severe SW gale on 8th brought structural damage, and cold air spreading south during 13th heralded the first frost of the month in the south of England. Warm south-westerlies crossed the UK again on 17th/18th, bringing more rain. After Christmas, the weather became colder before mild SW winds brought more rain at the end of the month. Mean temperatures were above average with the warmest December since 1988.

A Crane flew over Thorney Island on 11th and was presumably the bird which roosted at Pulborough Brooks that night. Another sighting at West Wittering on 17th may relate to the same individual. Barnacle Geese and White-fronted Geese were widely recorded and 4 Bean Geese were seen at Pevensey Levels on 12th. A Red-breasted Goose, of presumably feral origin, was found at Amberley Wild Brooks on 18th and joined the geese at Pulborough Brooks from 19th-31st, with occasional sightings at Arundel WWT. A Peregrine wintered in Brighton and a Great Grey Shrike was seen at Weir Wood Reservoir on 19th. 20 Red-throated Divers flew off Worthing on 27th. Blackcaps were almost common in many urban gardens. Little Egret numbers dropped at Thorney Island, with a maximum of 27 on 31st.

CLASSIFIED RECORDS FOR 1993

This list covers all species in Categories A and C of the British Ornithologists' Union check list. Records of national rarities have only been included if the Society has been notified of their acceptance by *British Birds*, at the time of going to press. Observers are reminded that all records of unusual species (see list on inside back cover) are considered by the Records Committee and only those fully authenticated will be published.

The following abbreviations are used in the Systematic List as standard practice: E,W,N,S etc., cardinal points of the compass; GP, gravel pit(s); GC, golf course; Hbr, Harbour; MP, Mill Pond; SF, sewage farm or works; LNR, Local Nature Reserve; NR, Nature Reserve; NNR, National Nature Reserve; Res., Reservoir; SSSI, a notified Site of Special Scientific Interest; WWT, Wildfowl and Wetlands Trust; nc, no count; ha, hectares; km, kilometres. (Note that 1 sq. km = 100 ha = 247 acres.) The reference to the latest standard account of Sussex birds is abbreviated: Shrubbs 1979 (Shrubbs, M., 1979, *The Birds of Sussex, their present status*. Phillimore, Chichester).

Note: The status summaries for a number of species are currently under review. They are being examined in connection with the avifauna, thus further revisions will appear in the next report. Ed.

SWANS, GEESE, DUCKS and WADERS. Readers are reminded that the tables presented for all the main species have been compiled from the Wetland Bird Survey (WeBS) organised by the BTO/WWT/RSPB/JNCC. The counts were made once per month and therefore the tables do not show the peak monthly figure but present a more meaningful coordinated count. The counts for both coastal and inland sites were made on 9 Jan. (coastal), 17 Jan. (inland), 6 Feb. (coastal), 14 Feb. (inland), 6 Mar. (coastal), 14 Mar. (inland), 18 Sept., 16 Oct., 13 Nov., and 11 Dec. 1993, and 15 Jan., 12 Feb. and 12 Mar. 1994.

ESCAPES AND FERAL BIRDS. As in recent Reports, a separate list of escaped and/or feral birds (other than those species in the British Ornithologists' Union's Category C which appear in the main list) is appended to this report on pages 92-93.

0002. RED-THROATED DIVER (*Gavia stellata*). Regular winter visitor and passage migrant.

An unexceptional year but with more being identified on spring seawatches than usual. The approximate monthly totals (but see also Diver sp.) were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
94	26	221	95	31	-	-	-	3	13	7	37

The Jan. figure included totals of 6 E and 15 W off Selsey Bill and 12 E and 34 W off Glynne Gap, Bexhill. Inland, an oiled bird was at Bewl Water on 17th and a single was at Arlington Res. on 19th. Feb. records included 11 E and 5 W off Glynne Gap during the month and 2 at Scotney Court GP on 16th. Records for Mar-May were mostly of birds passing up-channel at the main seawatching localities. Some duplication is likely between sites, although differences in observer confidence can be measured by totals from Selsey Bill and Seaford with 1 E and 65 E respectively. Inland records were of singles at Arlington Res. and Scotney Court GP both on 7 Mar.

The first returning birds were noted off Church Norton with 2 on 19 Sept. Thereafter, no more than 3 were recorded from any site until 30 Oct. when 4 were seen off Goring. Nov. records included one commencing a 3 week stay at Weir Wood Res. from 20th, one at sea off Brighton on 22nd and a single at Scotney Court GP on 25th. In Dec. 8 were seen off Fairlight on 2nd, one was in Sovereign Marina, Eastbourne from 5th and 20 flew E off Worthing on 27th.

0003. BLACK-THROATED DIVER (*G. arctica*). Regular winter visitor and passage migrant.

An average spring by recent standards but with less than usual being recorded at the end of the year. The approximate monthly totals (but see also Diver sp.) were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
10	7	15	37	68	1	-	-	1	1	2	11

Records for Jan-Feb. came mostly from Glynne Gap, Bexhill with a total of 5 W in Jan. and in Feb. one E on 11th and 3 offshore on 28th. Elsewhere, singles were recorded offshore at a number of locations and one was at Scotney Court GP on 10 Feb. The majority of spring records were of birds moving E from the main seawatching localities as follows: Selsey Bill 21, Worthing 28, Seaford 36 and Bexhill 20. Elsewhere, the only records were of one found dead at Bewl Water on 11 Apr., 2 off Clipping on 21st and one off Widewater, Lancing on 10 May. The last spring record was of one E at Selsey Bill on 3 June.

The first returning bird was off Hastings on 29 Sept. Thereafter singles were noted off Brighton on 19 Oct., 3 Nov. and 20 Nov. In Dec. 2 were off Fairlight on 2nd, a single was in Rye bay on 5th, one was in Sovereign Marina, Eastbourne from 21 - 23rd with another single at Pagham Hbr on 26th. On 27th, 3 flew E at Worthing and another was offshore there with 2 more recorded off nearby Shoreham the next day.

0004. GREAT NORTHERN DIVER (*G. immer*). Regular winter visitor and passage migrant.

Singles noted from Selsey Bill on 8 Jan. (BJC), Chichester Hbr on 17 Jan. (BJP) and Pilsley Island on 30 Jan. and 7 Feb. (CBC) may have involved some duplication.

In the spring singles flew E at Selsey Bill on 20 Mar. (CRJ), 3 Apr. (OM), 9 Apr. (OM) and 28 Apr. (TJE). Elsewhere, birds were recorded flying E at Birling Gap on 3 May (RJF), Brighton Marina on 14 May (RJF) and Worthing on 19 May (RJS).

At the end of the year one flew W off Selsey Bill on 10 Nov. (BJC) and one was in Chichester Hbr. on 30 Nov. (CBC).

DIVER SPECIES (*G. sp.*).

Totals of birds passing up-channel during Jan-May at the most watched seawatching localities were as follows:

	No. of hrs watched	<i>G. stellata</i>	<i>G. arctica</i>	<i>G. immer</i>	<i>G. sp.*</i>
Selsey Bill.....	510.5	31	21	4	232
Worthing.....	318.8	51	28	1	254
Seaford.....	577	137	36	-	1050
Bexhill.....	283	30	20	-	316

* = includes specifically identified

Analysis of the above records reveals the following monthly distribution:

	Jan.	Feb.	Mar.	Apr.	May	Total
Selsey Bill.....	65	3	38	72	54	232
Worthing.....	16	9	87	58	84	254
Seaford.....	57	94	483	286	130	1050
Bexhill.....	14	172	83	29	18	316

Peak counts were at the end of Mar. with records from Seaford of 91 E on 28th and 56 E on 29th. In addition to the above a westerly movement was noted in January with totals of 138 W at Selsey Bill and 201 W at Bexhill.

This was the second consecutive year when over 1000 were recorded passing E at Seaford. The following table shows the average number of birds passing per hour at the 3 main sites for the last 3 years.

	1991	1992	1993
Selsey Bill.....	0.59	0.61	0.45
Worthing.....	0.63	0.96	0.80
Seaford.....	1.43	2.88	1.82

It is notable that considerably larger numbers are noted from sites further east.

At the end of the year the only records in double figures were of 72 E and 5 W off Worthing on 27 Dec. and 31 E off Seaford on 29 Dec.

0007. LITTLE GREBE (*Tachybaptus ruficollis*). Regular winter visitor and breeding summer visitor.

The monthly WeBS counts at the principal sites were:

	1993			1994							
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	
Country totals.....	50	86	89	61	69	71	71	71	74	56	53
Chichester Hbr.....	24	24	25	13	23	23	35	30	25	17	17
Pagham Hbr.....	5	10	8	5	10	8	9	6	12	1	1
Chichester GP.....	3	3	4	18	3	14	4	6	7	5	5
Cuckmere.....	12	21	19	6	4	2	7	11	nc	12	14
Rye Hbr.....	3	15	23	19	24	21	16	14	8	14	14

Monthly maxima at selected wintering sites included:

	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Thorney Island.....	8	-	-	-	37	40	41
Lower Cuckmere.....	21	21	-	-	-	5	10
Northpoint GP.....	23	8	12	4	6	16	10

In the breeding season 21 pairs were noted from 12 locations as follows with the number of young shown in brackets: Thorney Island 4 (3), Chichester GP 1 (2), the Severals, Church Norton 1 (1), Dunford GP, Midhurst 2 (2) and Boundary Pond, Holmbush 1 (2). Other pairs were noted as follows: Rye Hbr 5, Aldsworth Pond 2 with single pairs at Pett Pools, Icklesham, Stansted Park, Cophorne Common and Pendean Sand Pit but the breeding success at these sites is unknown. In addition 23 were present at Glynne Reach Clay Pit on 25 July where breeding success was said to have been good.

Post-breeding dispersal was noted in the Lower Cuckmere Valley with 2 on 6 Aug. and at Arlington Res. with one on 16th. Thereafter, the maximum counts away from the main sites were 14 at Bewl Water on 17 Oct., 23 in Chichester Hbr on 18 Nov., 19 at Pagham Lagoon on 23rd and 4 at Pulborough Brooks on 15 Dec. One at Woods Mill, Henfield on 4 Nov. and 2 Dec. was the first record there for over 20 years.

0009. **GREAT CRESTED GREBE (*Podiceps cristatus*). Regular winter visitor, breeding summer visitor and passage migrant.**

The monthly maxima at the principal wintering sites were:

	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Weir Wood Res.	49	89	124	96	107	67	83
Arlington Res.	4	-	-	34	24	40	36
Bewl Water	44	40	78	74	50	23	75
Darwell Res.	20	26	-	40	33	-	30
Pett Level	147	80	-	-	1	-	40

No systematic counts were received from Chichester Hbr, Pagham Hbr or Ardingly Res. Other notable counts for the first 3 months were of 20 off Church Norton on 16 Jan., 30 off Bexhill on 3 Feb., 19 between Brighton Marina and Saltdean and 13 off Goring both on 6 Mar. and a total of 34 E past Seaford during the period. In May, 3 were still off Thorney Island on 13th and a single was on the R. Adur at Pulborough on 27th.

In the breeding season, 35 pairs and 52 young were noted at Bewl Water on 6 June and at Rye Hbr 10 pairs reared about 6 young. Elsewhere, pairs were noted as follows, with the number of young shown in brackets: Weir Wood Res. 36 (3), Chichester GP 5 (3), St. Julians, Coolham 1 (2). Pairs were also noted at Warnham 2, Arlington Res. 2, Tilgate Park, Eridge Park, Knepp Lake, Pett Pools and Pond Lye but breeding success at these sites is unknown. Eight were noted in Chichester Hbr on 11 June.

Post-breeding dispersal was noted at Pilsey Island with a single on 4 July and from Pagham Hbr with 2 on 24 July increasing to 8 by 8 Aug. and 20 by 25th. The only notable counts away from the main sites at the end of the year were 29 off Pilsey Island on 25 Nov., 3 in Sovereign Marina, Eastbourne on 5 Dec. and 8 E and 3 W off Worthing on 27th.

0010. **RED-NECKED GREBE (*P. griseogena*). Regular winter visitor and passage migrant.**

In Jan. singles were noted off Worthing on 6th (MGP), Newhaven on 8th (CAH), Selsey Bill on 13th and 20th (TJE), Emsworth Channel on 18th and 30th (CBC) and Thorney Island on 21st. (CBC). In Feb. the only acceptable record was of one off Thorney Island on 7th (CBC) and in Mar. a single was recorded off Pilsey Island on 6th (CBC).

Spring records were more widespread commencing with a well-watched individual off Seaford on 3 Apr. (AMW *et al.*) followed by one E at Brighton Marina on 22 Apr. (CB), one at Seaford on 8 May and finally a bird in full summer plumage flew E at Worthing on 16th (PMB).

In the second half of the year 4 singles were recorded: one arrived at Chichester GP on 10 Sept. (RJF) remaining until 10 Oct., one was in the new Sovereign Marina, Eastbourne from 4 Nov. until 26 Dec. (KGBH *et al.*), one was off Selsey Bill on 14 Nov. and finally one was in Pagham Hbr on 5 Dec. (RJS).

0011. **SLAVONIAN GREBE (*P. auritus*). Regular winter visitor and passage migrant.**

A slightly above average year but with less than usual recorded in the spring. The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
29	17	32	4	1	-	-	-	-	20	43	33

In Jan. singles were present inland at Bewl Water and Chichester GP on 3rd. Maximum counts from the western harbours during the month were 6 off Pilsey Island and 10 off Church Norton with possibly an additional 5 off Selsey Bill. Elsewhere, 2 were off Seaford on 2nd, one was at Worthing on 26th and up to 3 were off Bexhill at the end of the month increasing to 14 by 16 Feb. The only other notable record in Feb. was of a single off Shoreham on 14th. In Mar. the peak count from Church Norton was 20 on 7th. Elsewhere, one was at Rye Hbr from 2 - 20th, 3 remained at Bexhill until 14th, 2 were off Worthing/Goring from 21 - 27th and 2 were at Seaford on 27th. Spring singles were off Bexhill on 3 Apr., Seaford and Selsey Bill on 10th, Saltdean on 24th and finally Seaford on 7 May.

The first returning bird was on the rather late date of 10 Oct. at Church Norton but numbers built rapidly to 17 by 17th. A single was off Newhaven on 20th and a pair were seen displaying and calling at Weir Wood Res. on 25th remaining until 20 Nov. Singles were recorded from a number of locations in Nov. but peak counts were from the western harbours with 28 recorded at Church Norton on 14th and 9 off Thorney Island on 30th. Also on 30th a single was on the R. Adur at Shoreham. All records for Dec. were from the west with a maximum count from one site of 14 W at Selsey Bill on 29th.

0012. **BLACK-NECKED GREBE (*P. nigrocollis*). Regular winter visitor and passage migrant.**

Few records were received although the spring records from Rye were particularly notable.

At the beginning of the year one was present off Bexhill between 4 Jan. and 16 Feb. (IS, RBW). In spring, a pair were noted at Rye Hbr on 4 Apr., on 8th they were watched nest building but by 11th only one appeared to be present. Thereafter, none were recorded until 10 May when a single appeared at the Ternery Pool remaining until 23rd (BJY, DJF).

One appeared in Pagham Hbr on 23 Sept. (ASC) and the only other record was of a single at Northpoint GP on 27 Nov. (PRB, RGH).

0020. **FULMAR (*Fulmarus glacialis*). Breeds. Resident late Nov-Sept. Passage migrant.**

The usual movements of uncertain significance were recorded at the main seawatching localities, away from the nesting areas, as follows:

Direction of movement	Jan-Feb.		Mar-May		June-July		Aug-Oct.	
	E	W	E	W	E	W	E	W
Selsey Bill	-	12	99	392	-	4	-	19
Worthing	-	1	334	262	-	-	-	6
Bexhill	25	8	253	169	-	4	-	-

The peak movement was 48 E in 13 hours at Worthing on 9 May.

80 were recorded on the cliffs between Hastings and Pett on 18 Feb., 31 between Brighton Marina and Saltdean on 6 June and 13 occupied sites at Newhaven on 15 July. Successful nesting was recorded at the latter site where 4 pairs raised young. A single bird was observed prospecting nest-sites at Upper Beeding cement works on 10 Mar. (ARK).

One was recorded at Pagham Hbr on 24-25 Nov. and 20 had returned to the cliffs at Newhaven by 27 Nov.

0036. **CORY'S SHEARWATER** (*Calonectris diomedea*). **Rare vagrant.**

Two flew W together off Selsey Bill on 11 Aug. (TJE). These were the first to be recorded in the county since 1987 and bring the total to 14.

0046. **MANX SHEARWATER** (*Puffinus puffinus*). **Regular/scarse passage migrant and scarce summer visitor.**

One flew W at Splash Point, Seaford on 3 Apr. (RGB). Selsey Bill recorded 5 on the same date (BJC), followed by 2 on 5 Apr. (BJC), 2 on 28 Apr. (TJE), one on 8 May (OM), 2 on 30 May (OM) and one on 26 June (BJC). Other spring records were of 3 E at Brighton Marina on 20 Apr. (CB), one W at Splash Point, Seaford on 10 May (SHL) and 3 E at the same site on 17 May (GCG).

Autumn records came from Selsey Bill with 2 on 8 Sept. (ASC,OM) and one on 9 Sept. (ASC) and Worthing Beach with 2 W on 13 Sept. (RJS).

0071. **GANNET** (*Sula bassana*). **Common spring to autumn visitor offshore; scarcer but increasingly numerous in winter.**

Totals at the main seawatching localities were as follows:

Direction of movement	Jan-Feb.		Mar-May		June-July		Aug-Oct.		Nov-Dec.	
	E	W	E	W	E	W	E	W	E	W
Selsey Bill.....	30	82	574	381	14	32	319	158	-	-
Worthing.....	-	24	368	806	-	-	235	191	1	1
Seaford.....	26	1	1641	140	-	-	-	-	-	-
Bechill.....	16	7	244	61	5	1	-	-	-	-

Additionally, there were up to 100 offshore at Selsey Bill on 20-21 July.

The peak movements recorded in the first half of the year were 688 E at Seaford between 13-18 May and 203 E at Worthing on 17 May. In autumn, the only large movements reported were 262 E off Selsey Bill in 5 hours on 8 Sept. and 137 W off Church Norton on 12 Sept.

One flew W over Sidlesham Ferry on 14 Oct., an unusual locality for this normally maritime species.

0072. **CORMORANT** (*Phalacrocorax carbo*). **Regular breeding summer visitor, regular passage migrant and winter visitor.**

The monthly maxima reported at some principal sites are summarised:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Barcombe Res.	14	7	nc	nc	nc	nc	nc	nc	nc	nc	nc	44
Bewl Water	15	30	11	nc	7	3	14	33	38	60	30	60
Pagham Hbr	nc	50	89	111	nc	97	121	167	nc	120	nc	nc
Rye Hbr	nc	nc	48	27	82	114	105	121	142	72	41	nc
Upper Adur	172	111	nc	nc	nc	nc	nc	nc	nc	nc	nc	174
Weir Wood Res.	nc	21	18	nc	nc	nc	nc	nc	nc	17	29	nc

The Pagham Hbr figures include birds seen flying off at dusk to roost at Chichester GP. Large numbers were also reported from Ardingly Res. (49 roosting in trees on 23 Jan.), Arlington Res. (20 on 14 Dec.), Bognor Pier (105 at daytime roost on 7 Nov.), Chichester GP roost (130 on 13 Feb., 139 on 13 June and 216 on 24 Aug.), Church Norton (214 on 28 Feb. and 177 offshore there on 19 Sept.), Darwell Res. (22 on 14 Mar.), Knepp Lake (36 on 22 Dec.), Lower Ouse Valley (25 on 7 Nov.), Pevensey Levels (44 recorded by a co-ordinated count on 17 Jan. and 26 on 14 Feb.), Selsey Bill (108 on 1 Jan. and 93 on 7 Mar.) and South Stoke (45 flying to roost on 1 Jan., 112 on 28 Oct. and 40 on 23 Dec.).

In the breeding season, although a pair displayed and were nest building at Rye Hbr, no serious attempt at nesting was made. No other breeding reports were received. A number of colour-ringed birds were reported during the year particularly from Ternery Pool, Rye Hbr. An individual with ring number TL9617, recorded at Thorney Deepes on 2 Aug., had been ringed at Abberton Res., Essex.

0080. **SHAG** (*P. aristotelis*). **Regular winter visitor and passage migrant; occasional in summer.**

The approximate monthly totals (allowing for likely overlap between adjacent localities) were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
20	9	7	11	28	-	1	1	3	19	15	12

The largest numbers were at Brighton Marina where the peak counts were 12 on 29 Jan. and 7 on 26 Dec. At Seaford 12 were recorded on 14 May, including a flock of 7 that was seen there intermittently between 25 Apr. and 22 May. At Selsey Bill, flocks of 10 flew S on 12 Oct. and 2 Nov.

Inland, there were singles at Ardingly Res. and Barcombe Res. on 6 and 13 Jan. respectively (CAH).

0095. **BITTERN** (*Botaurus stellaris*). **Scarce winter visitor and rare/scarse passage migrant.**

1979: One found dead at Wisborough Green on 2 Feb. is in the Booth Museum (BoMNH 201706).

1993: After a blank year in 1992, it is pleasing to note at least 7 birds recorded. At Rye, a single was seen on 1 and 14 Jan. (BJY *et al.*), one was seen at Chichester GP (which were iced over) on 3 Jan. (AH *et al.*) and another single was at Weir Wood Res. on 6 and 20 Jan. (mo). Winter singles were also at Pulborough Brooks on 7 Jan. and Icklesham on 11 Jan. (JW). In the latter part of the year single birds were at Rye on 11 Nov. and 6 Dec. (LW, BJJ) and at Pagham Hbr on 27 Nov. (JB, MB).

0104. **NIGHT HERON** (*Nycticorax nycticorax*). **Rare, mainly spring vagrant.**

An adult at Rye Hbr on 10 Sept. (DJF) has been accepted by *British Birds*. It spent most of the morning roosting on an island at Castle Water.

0119. **LITTLE EGRET** (*Egretta garzetta*). **Previously scarce visitor, increasingly common.**

1992 was an unprecedented year for this species in Sussex, with a maximum of 12 birds recorded together. This gave no indication of the numbers that would be seen in 1993!

Thorney Island has become a stronghold for this species with birds present all year. A maximum of 11 were seen to roost in Jan. (on 1st) and 4 were seen displaying on 29th. Roosts fluctuated through the spring and early summer with monthly maxima of 12 on 16 Feb., 13 on 5 Mar. and 13 on 2 Apr. Three were seen in the Deepes on 6 May and 6 on 10 June. In July the maximum roost count was 17 on 31st. August saw a gradual increase in roosting birds with 30 on 5 Aug., 35 on 14 Aug., 40 on 19 Aug., 48 on 21 Aug., 54 on 24 Aug. and an unprecedented maximum of 57 on 31 Aug. September maintained this maximum with 57 recorded on 7th, although this number dropped to 33 on 21st. Maximum roost in Oct. was 32 on 4th, in Nov. 37 on 1st and Dec. 27 on 31st.

No other site could compete with these numbers, but birds were regular at several other sites, although many (especially those at Pagham and Chichester Hbr) probably originated from the Thorney roost.

Pagham had one bird on 2 Jan. but no further records until June (maximum of 5 on 12th) and then one or more birds were regular until the end of the year. Other maxima were 3 on 3 Mar., 6 on 26 Sept. and 3 through Nov. and Dec.

Elsewhere, singles were seen at Rye Hbr (16, 17 and 19 Apr.), Bewl Bridge Res. on 27 Apr., Shoreham (R. Adur and airport) on 22 June, 5 Aug. and from 12 Oct. to 4 Nov., Beachy Head on 5 and 6 Sept. and Littlehampton Marina on 5 Oct.

Pevensy had 2 birds on 30 May and one on 10 Aug. Cuckmere recorded one or 2 birds regularly from 30 July to 10 Oct. Pulborough Brooks had 1-2 birds present from 27 July to 2 Aug. with a maximum of 5 present on 28 July. Other notable maxima were 10 at Pilsey on 23 Aug. and 7 at Dell Quay on 1 Sept.

0122. **HERON** (*Ardea cinerea*). **Breeds, widespread throughout the year.**

All known heronries were counted and nests certainly and probably occupied totalled 188 (186 in 1992). The counts were as follows: Fishbourne 19 (JKC), Pagham 9 (ABW), Flansham 11 (RK), Parham 17 (PI), Henfield 19 (ABW), Firle 14 (ABW), Knepp 13 (AS,IMS), Eridge 11 (MS-H), Glynleigh 9 (PIL), Westham 0 (PIL), Wartling two heronries 3 and 6 (PIL), Winchelsea 2 (CHD), Leusam 38 (JA), Iford 2 (DCL), Gillham's Moor 3 (JLN), Rye Hbr 1 (BJY), Warnham LNR 1 (GRS), Charleston 8 (PIL), Hadlow Down 1 (PBC), Westbourne 1 (GCMR). Of the four new sites Warnham LNR was an isolated nest but Hadlow Down and Westbourne are mimima, being reports from landowners. At Charleston Herons were seen carrying nesting material in 1992. The Westham heronry seems to be extinct.

During the year maximum counts were 44 on Pevensy Levels in Jan. and 25 in Feb., at Rye Hbr 14 in Sept., 23 in Oct., 22 in Nov. and 24 in Dec. Singles flew E over the sea at Worthing on three dates in May. Herons were recorded in suitable habitat throughout the county all through the year.

0124. **PURPLE HERON** (*A. purpurea*). **Rare spring and autumn visitor.**

A juvenile flew S at Sidlesham Ferry on 12 Oct. (TJE) while another juvenile was seen at Icklesham on 17 Oct. (IDH, SJRR, JW). Both records are rather late and it is possible they relate to the same individual.

0131. **BLACK STORK** (*Ciconia nigra*). **Very rare vagrant.**

On 16 Sept. one flew NE over Sidlesham Ferry at 14:10 hrs (TJE). E over Shoreham-by-Sea at 15:05 hrs (RHE-W) and was later seen over Icklesham (JC). It has been accepted by *British Birds* and although only the 4th county record, is hot on the heels of those in 1989 and 1991.

0134. **WHITE STORK** (*C. ciconia*). **Scarce/rare passage migrant.**

One (possibly an immature) was found at Madehurst, near Arundel on 2 May (mo). It remained until the next morning when it was enjoyed by a number of observers.

0144. **SPOONBILL** (*Platalea leucoradia*). **Scarce/rare passage migrant and summer visitor, scarce/rare winter visitor.**

Up to 4 birds were recorded, the first a single at Icklesham on 12 June (TS). Two were present on the east side of Pagham Hbr on 8 Oct. (BJ) and a single was recorded flying along the shoreline at Church Norton on 13 Oct. (BJ, SJK).

0152. **MUTE SWAN** (*Cygnus olor*). **Regular breeding resident.**

Highest counts in Jan-Mar. were 81 on the Lewes Brooks on 1 Jan., 109 in the Lower Ouse Valley on 12 Jan., 54 near Hailsham on 13 Jan., 127 on a co-ordinated count of Pevensy Levels on 17 Jan. and 56 on Castle Water, Rye Hbr, on 2 Mar. 32 on Henfield Levels on 26 Jan. was the highest count in West Sussex.

The first reported evidence of breeding was a nest at New Salts Farm, Lancing on 23 Mar. 33 nests were recorded of which 21 were known to be successful, producing 73 cygnets. Information was not received about the success of all known nests and other nesting attempts may have gone unreported. Herd counts in the summer months included up to 70 in Fishbourne Channel, 85 adults and 6 juveniles at Castle Water, Rye Hbr and 38 on Amberley Wild Brooks.

At the end of the year notable Nov-Dec. counts included 80 on the Lewes Brooks on 8 Nov., a co-ordinated count of 34 on several waters in the Chichester GP complex on 28 Nov., up to 77 on Pevensy Levels in Dec., 121 at Itford Farm, Southsea on 15 Dec. and 54 in Fishbourne Channel on 29 Dec.

0153. **BEWICK'S SWAN** (*C. columbianus*). **Regular winter visitor.**

At the beginning of the year numbers were lower than in previous years and peaked in the Arun Valley in Feb., with 66 the maximum count reported in the Amberley Wild Brooks/RSPB Pulborough Brooks area. Small numbers in the Arun Valley included 19 at Bines Bridge, Ashurst on 30 Jan., 15 at Knepp Lake on 14 Feb. and 11 on Henfield Levels on 26 Jan. The only records received from the east of the county were of 15 birds on Lewes Levels on 12 Jan. and 4 at Glynde Levels on 5 and 9 Feb. Last records in spring were 65 at Coldwaltham Brooks on 6 Mar., and the same number which flew E over Ivy Lake, Chichester GP the following day when 64, possibly the same herd, were recorded at Thorney Deep.

Even lower numbers, with very few juveniles, were recorded in the second winter period. The first sighting was of 4 in Pagham Hbr on 19 Oct. Arun Valley birds reappeared on 24 Oct. where the highest count reported was 42 at Amberley Wild Brooks on 26 Dec. 11, including 3 juveniles, were seen at Bines Bridge on 16 Dec. and 18 birds, including 2 juveniles, were on the Upper Adur Levels on 21 and 23 Dec. Records from East Sussex again were sparse with only 11 at Itford Farm, Southsea on 15 Dec., 5 on Pevensy Levels on 1 Nov., and on Lewes Brooks on 8 Nov., and 2 at Glynde Reach clay pit on 26 Dec. reported.

0154. **WHOOPER SWAN** (*C. cygnus*). **Scarce winter visitor.**

A second-winter bird at Bewl Water on 17 Oct. (PCB) was the only record.

0157. **BEAN GOOSE** (*Anser fabalis*). **Scarce/rare winter visitor.**

Recorded in both winter periods with a singleton on 7 Mar. at Scotney Court GP (ASG) and in the second winter period, a singleton on 21 Sept. at Weir Wood Res. (BMM) and 4 present on Pevensy Levels on 12 Dec. (JFC, DC).

0158. **PINK-FOOTED GOOSE** (*A. brachyrhynchus*). **Scarce/rare winter visitor.**

A feral bird on 1 Jan. remained at Bewl Water throughout the year (PCB). Birds with probably better credentials were the 2 adults present on 2 Jan. at Terney Pool, Rye (BJY) and the 16 E-past Glyne Gap on 4 Feb. (RW).

In the second winter period there were 3 at Seaford on 4 Nov. (PJW). The last of the year was a singleton at Arlington Res. on 14 Nov. (WT). A well above average showing.

0159. **WHITE-FRONTED GOOSE** (*A. albifrons*). **Regular winter visitor.**

In the first winter period, nearly all records received related to birds in the E of the county, with 11 adults at Rye Hbr on 2 Jan., 32 nearby on 17 Jan. and 13 W on 27 Jan. The only W Sussex record was a singleton recorded twice at Thorney Island, on 16 Feb. and 6 Mar. Several records from Scotney Court GP included 5 on 16 Feb. and 12 on 7 Mar. The last record in this period was that of 2 off Hastings Beach on 13 Mar.

The first returning bird was found on 30 Oct. at Elms Farm, Icklesham. Birds were then recorded widely over the whole county and in good numbers, i.e. 44 at Pulborough Brooks on 1 Dec. rising to a maximum of 81. 18 were at Horse Eye Level, Pevensy on 1 Dec. with 59 over this area on 3 Dec. 43 were seen on 3 dates at Henfield Levels, 15 at Pagham Hbr on 7 and 16 Dec. and 55 in flight at Rye Hbr on 15 Dec. were amongst the many records received.



0161. GREYLAG GOOSE (*A. anser*). Resident feral breeding population, winter visitor.

1992: The monthly wildfowl counts at the principal sites were:

County totals	1992			1993						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Pulborough Brooks				28	76	87	73	30	13	27
Ardingly Res.				2	-	56	33	13	9	6
Weir Wood Res.				20	-	22	25	28	24	5
Glynde Levels				-	53	5	2	1	1	6

1993: The monthly wildfowl counts at the principal sites were:

County totals	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Amberley	30	13	27	39	118	124	90	74	56	41
Wild Brooks	nc	nc	nc	30	-	75	53	33	-	23
Pulborough Brooks	13	9	6	9	51	2	3	13	24	18
Ardingly Res.	24	-	5	nc	20	35	32	27	32	-
Weir Wood Res.	-	-	-	nc	44	-	-	1	-	-

Widely recorded, with higher counts being 36 at Piddinghoe Pond on 8 Jan., 24 at Rye Hbr on 18 Jan., 80 at Scotney Court GP on 7 Feb. rising to 110 on 19 Feb., 27 at Ardingly Res. on 14 Feb. and 11 on Amberley Wild Brooks on 20 Feb. Three Eastern race birds were at Exeat Bridge, Cuckmere on 6 Mar. Pairs with young were reported from Pulborough Brooks, Ardingly Res., Narrow Pit and Ternery Pool, Rye Hbr and Piddinghoe Pond.

Maximum counts in the latter part of the year were 65 at Weir Wood Res. on 19 Sept. and 76 on 10 Oct., 65 at Amberley Wild Brooks on 25 Oct. rising to 90 on 18 Nov. (approximately 100 birds on Pulborough South Brooks on 28 Nov. probably account for birds present in this immediate area to the close of the year), 30 at Elms Farm, Icklesham on 28 Oct., 62 at Castle Water, Rye and 63 at Pett Level on 16 Nov. and 53 at Scotney Court GP on 19 Nov.

GREY GOOSE SPECIES (*A. sp.*).

Often distant birds difficult to positively identify to specific species, although most probably relate to White-fronted Goose (*A. albifrons*). 7 W past Climping on 2 Feb., 5 at Sidlesham MP on 10 Feb. and 17 SE past Durrington on 14 Feb. (these strongly suspected to be Pink-footed Geese (*A. brachyrhynchus*)). A massive 385 past Splash Point, Seaford on 5 Mar. and 42 past Hastings Beach on 16 Mar.

In the latter part of the year, 9 flew past Seaford Head on 12 Oct., 12 were at South Mundham on 1 Nov., 14 flew SE past Theale Farm, Slimfold on 23 Nov. and 8 E off Worthing Beach on 27 Dec. A few hybrid Greylag/Canada/farmyard geese were also recorded.

0166. CANADA GOOSE (*B. canadensis*). Introduced regular breeding resident.

1992: The monthly wildfowl counts at the principal sites were:

County totals	1992			1993						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	2131	713	833	1784	1780	1887	419	346		
Chichester GP	88	107	32	28	35	21	6			
Arundel WWT	371	141	36	247	289	68	71			
Pulborough Brooks	-	23	227	293	327	31	14			
Weir Wood Res.	84	10	20	-	-	61	28			
Darwell Res.	2	1	3	2	142	56	26			
Pett Level	-	4	35	26	82	52	36			
Rye Hbr	261	83	119	88	75	114	60			

1993: The monthly wildfowl counts at the principal sites were:

County totals	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	1780	938	507	894	1553	1340	1369	1887	419	346
Chichester GP	35	21	6	-	28	1	38	46	1	3
Arundel WWT	289	68	71	205	31	98	99	206	80	84
Amberley										
Wild Brooks	11	390	265	12	537	-	4			
Pulborough Brooks	327	31	14	205	490	291	210	231	45	31
Ardingly Res.	41	23	15	nc	49	33	44	55	36	26
Cuckmere Haven ..	260	296	77	397	284	341	361	520	nc	30
Weir Wood Res.	-	61	28	nc	4	52	-	11	12	9
Darwell Res.	142	56	26	nc	-	2	350	25	11	10
Pett Level	82	52	36	26	72	68	-	71	8	8
Rye Hbr	75	114	60	39	198	124	108	173	94	78

Larger counts in the beginning of the year included 108 at Ardingly Res., 327 at Pulborough Brooks, 142 at Darwell Res., 650 at Bewl Water and 321 in the Lower Cuckmere Valley.

Breeding was confirmed at 17 sites, with 191 young raised.

In the latter part of the year, 542 were at Arlington Res. on 10 Aug., 200 at Darwell Res. on 17 Aug. rising to 350 on 12 Dec., 124 in the Lower Cuckmere Valley on 18 Aug. with 156 on 2 Nov. 150 came in off the sea on 26 Aug. at Climping, 1000 were at Bewl Water on 30 Aug., 160 at Rye Hbr on 9 Sept., 175 at Barcombe Res. on 10 Sept. and 154 at Elms Farm, Icklesham on 24 Sept. 500 were at Amberley Wild Brooks on 7 Oct. with 600 on 18 Nov., 198 at Rye Saltings on 16 Oct., 127 at Glynde Levels on 17 Oct., 110 at Weir Wood Res. on 21 Oct. approximately 170 at Pett Level on 27 Nov. and 133 at Coldwaltham Brooks on 21 Dec.

0167. BARNACLE GOOSE (*B. leucopsis*). Scarce winter visitor. Due to the presence of an ever-growing feral population, the true status of this species remains clouded.

24 were at Arlington Res. on 1 Jan., with 12 at Scotney Court GP from at least 3 Jan. rising to 27 on 19 Feb. and dropping to 13 on 27 Mar. In the latter part of the year, 3 were with Brent Geese at Sidlesham Ferry on 22 Nov., 15 at Pulborough Brooks from 28 Nov. to the close of the year, 48 at Pevensy Levels on 28 Nov. and 21 the

next day at Thorney Island. On 5-6 Dec. 38 were at Henfield Levels and at least 13 were at Barcombe Res. on 9 Dec. 24 were in the Lower Cuckmere Valley on 11 Dec. and 34 at Pagham Hbr on 15 Dec. Many records of smaller numbers were received.

0168. BRENT GOOSE (*B. bernicla*). Regular winter visitor and passage migrant.

Correction to 1992: The estuary counts should have read as follows:

	1992			1993						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	14813	15511	1878	17	4718	9858	12564	11382	11310	7921
Chichester Hbr	11355	11582	1745	nc	4085	8543	9559	11349	10096	7002
Pagham Hbr	3331	3669	128	nc	609	1283	2969	9	1209	865
Climping	127	250	-	-	1	12	11	5	-	48
Pett Level	-	10	-	-	1	6	9	6	2	6
Rye Hbr	-	-	-	-	21	-	2	-	2	-

1993: The estuary counts were as follows:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	11382	11310	7921	173	6473	9974	13717	14594	14715	3696
Chichester Hbr	11349	10096	7002	139	6051	9000	12229	12647	12077	3485
Pagham Hbr	9	1209	865	34	364	966	1459	1892	2638	206
Climping	5	-	48	-	1	-	23	55	-	-
Pett Level	6	2	6	-	-	2	4	-	-	2
Rye Hbr	-	2	-	-	27	-	1	-	-	-

Away from the regular coastal sites, a singleton was present for several days at Amberley Wild Brooks from 14 Jan. and 7 were at Weir Wood Res. on 19 Feb.

No. of hrs

	watched	Jan.	Feb.	Mar.	Apr.	May	Total
Selsey Bill	511	58E,45W	105E	3035E	527E,1W	139E	3864E,46W
Worthing	319	94E,32W	88E	4975E	120E	100E	899E,32W
Seaford	577	82E	1261E	14521E	529E	233E	16626E
Bexhill	283	32E,27W	1867E,4W	13426E	479E	87E	15891E,31W

Peak movements included 792 E in 45 minutes past Brighton Marina, 1715 E in 4 hours past Saldean and 3961 past Glyne Gap, Bexhill on 9 Mar., 1223 E in 6 hours past Newhaven on 11 Mar., 1134 E past Splash Point, Seaford on 13 Mar., 1940 E in 6 hours past Newhaven and 1985 past Seaford on 14 Mar., 1500 E past Beachy Head on 27 Mar. and 3891 past Seaford on 28 Mar. At Selsey Bill, 225 flew past in 3 hours on 2 Apr. and 284 flew E in 3 hours past Glyne Gap, Bexhill on 3 Apr.

Summering birds were recorded in Chichester Hbr, with 14 present in Thorney Channel and 2 birds in Pagham Hbr.

Return passage commenced in Sept:

	No. of hrs	watched	Sept.	Oct.	Nov.	Dec.	Total
Selsey Bill	75	8E,28W	308E,282W	3W	18E,27W	28E,198W	316E,310W
Worthing	50	20W	10E,148W	3W	18E,27W	28E,198W	

In the winter period, 1900 present at Barnham on 6 Dec. was the only large count received and was a very high count well away from the regular coastal sites.

Birds showing characteristics of the pale-bellied race *hrota* were noted in both winter periods, one on several dates at East Head until at least 26 Feb. with 2 there on 9 Feb. In the same period, one was recorded at Pagham Hbr on 21 Feb. and this latter site held 2 birds from 28 Oct. to the close of the year.

An adult Black Brant (*B. b. nigricans*) remained in the Emsworth Channel / Thorney Island area until at least 14 Feb. from 1992. Presumably the same bird returned and was seen with some regularity in this area from 16 Oct. to the close of the year (CBC).

0169. RED-BREASTED GOOSE (*B. rufticollis*). Extremely rare vagrant.

An unringed adult at Amberley Wild Brooks with White-fronted Geese on 18 Dec. 1993 and at Pulborough Brooks, sometimes consorting with presumed wild Barnacle Geese, between 19 and 31 Dec. 1993 (JSG *et al.*) has been accepted by *British Birds* as a probable escape from captivity, being reported from Arundel WWT with free-flying Barnacle Geese during this period.

0170. EGYPTIAN GOOSE (*Alopochen aegyptiaca*). Vagrant from established feral populations.

One was present at Elms Farm, Icklesham on 8 June (TS).

0173. SHELDUCK (*Tadorna tadorna*). Regular breeding resident and regular winter visitor.

The estuary counts were as follows:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	1490	2150	1814	37	188	694	1788	1613	1914	1196
Chichester Hbr	1422	1750	1449	24	106	411	1255	1225	1404	960
Pagham Hbr	26	344	232	12	82	281	476	324	445	178
Newhaven	nc	-	3	-	-	-	-	4	2	-
Cuckmere	6	11	27	-	-	2	3	6	nc	15
Pett Level	3	-	-	1	-	-	1	-	3	6
Rye Hbr	28	42	97	-	-	-	53	54	60	35

In the first winter period there were concentrations of 100 at Northpoint Pit on 1 Jan. and up to 152 at Pagham Hbr in Feb., while far inland there was one at Weir Wood Res. on 7 Feb., up to 4 at Glynde Levels and up to 19 at Amberley Wild Brooks. Spring maxima were 51 at Bexhill on 31 Mar., 400 at Thorney Deepes on 10 Apr. and 68 at Seaford on 30 Apr.

Breeding records were received from just 6 sites: 2 pairs at Aldsworth Pond, several broods at Chichester Hbr, one pair with 4 juveniles at Cuckmere Valley, 11 pairs raised 13 young at Rye Hbr LNR, 2 broods of 9 and 11 at Pagham Hbr LNR and 2 broods of 5 and 7 at Playden, near Rye.

By July the majority of adults had departed for their unknown moulting grounds. Inland there was one at Weir Wood Res. on 29 July, 3 at Arlington Res. on 19 Aug. and one at Coldwaltham Brooks on 4 Nov.

The results of the 1990-92 Shelduck breeding survey are presented in a paper on pages 98-102.

0178. MANDARIN (*Aix galericulata*). Introduced regular breeding resident.

Small numbers quite widespread early in the year, the most being 10 at Maynards Green on 8 Jan. and 8 at Swanbourne Lake on 20 Feb.

In the breeding season there were 5 pairs at Pulborough Brooks in May, 4 young with adults at Weir Wood Res. on 30 June and a female with 2 young at Faygate on 3 July.

Up to 3 at a few sites in Nov. and Dec.

0179. **WIGEON (*Anas penelope*). Regular winter visitor and regular passage migrant.**

1992: The monthly wildfowl counts at the principal sites were:

	1992			1993						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	119	1852	3218	4787	5200	4512	3711			
Chichester Hbr	71	732	666	988	765	943	926			
Pagham Hbr	-	463	838	446	57	216	128			
Pulborough Brooks ..	9	153	1069	2146	3176	1725	1238			
Cuckmere Haven ..	4	279	371	727	600	1035	992			
Pevensy Levels	-	6	18	-	102	100	5			
Bewl Water	20	167	182	391	355	444	390			

1993: The monthly wildfowl counts at the principal sites were:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	5200	4512	3711	573	2016	3307	5024	5727	5043	2451
Chichester Hbr	765	943	926	252	606	1251	1587	1511	1086	820
Pagham Hbr	57	216	128	179	708	459	525	383	1344	47
Amberley										
Wild Brooks	-	110	320	1020	1095	280				
Pulborough Brooks ..	3176	1725	1238	92	396	715	991	1420	2255	867
Cuckmere Haven ..	600	1035	992	45	185	504	647	1192	nc	595
Pevensy Levels ...	100	5	4	-	40	80	62	121		

The highest counts at the start of the year were 3176 at Pulborough Brooks on 17 Jan., 1050 at Amberley Wild Brooks on 28th, 1120 in the Lower Cuckmere and 300 at Fishbourne on 30th. On 14 Feb. 223 were at Pevensy Levels and 444 at Bewl Water, dropping to 390 on 14 Mar. and 120 on 2 Apr.

A few singles and pairs were seen in June and July, with 7 at Thorney Deepes on 7 July.

The return started in the last days of Aug. and by mid-Sept. there were 60 at Thorney Deepes and 170 at Pagham Hbr. In the Lower Cuckmere 320 on 10 Oct. rose to 471 on 24th. Nov. counts included 197 at Knepp on 6th, 320 at Amberley Wild Brooks and 174 at Bewl Water on 14th. In Dec. Pulborough Brooks held up to 2695, Arlington Res. 155 on 5th, and Bewl Water 417 on 30th.

0182. **GADWALL (*A. strepera*). Regular winter visitor and regular passage migrant. Has bred irregularly.**

1992: The monthly wildfowl counts at the principal sites were:

	1992			1993						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	213	233	94	25	70	146	151	280	107	45
Chichester GP	29	69	14	-	13	26	1	6	2	
Swanbourne Lake ..	13	6	-	-	-	4	8	19	20	
Arundel WWT	29	24	21	21	7	34	24	60	21	17
Pulborough Brooks ..	12	19	-	-	5	20	42	57	2	3
Bewl Water	54	50	26	1	30	55	55	68	13	1
Icklesham	46	28	20	3	9	-	6	56	37	-

1993: The monthly wildfowl counts at the principal sites were:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	280	107	45	23	35	112	83	78	70	39
Chichester GP	6	2	-	-	13	23	-	7	5	-
Swanbourne Lake ..	8	19	20	nc	5	52	26	6	6	18
Arundel WWT	60	21	17	23	10	9	11	21	16	20
Pulborough Brooks ..	57	2	3	-	5	4	4	5	36	-
Arlington Res	2	-	-	nc	-	17	18	23	1	-

Counts in Jan. included 40 at Rye Hbr on 3rd, 60 at Icklesham on 6th, and on 17th 68 at Bewl Water, 57 at Pulborough Brooks and 30 at Pevensy Levels. Numbers were generally lower in Feb. and the highest count in Mar. was 50 at Swanbourne Lake, Arundel.

Breeding was again proven at Rye Hbr with 6 young on 13 May and unconfirmed at 4 other sites where pairs were present.

The highest count of the year was 90 at Icklesham on 1 Nov. There were 34 at Arlington Res. on 5 Nov., 49 at Swanbourne Lake on 11th and 26 at Ivy Lake, Chichester GP on 23rd. In Dec. there were 34 at Rye Hbr on 6th and 60 at Bewl Water on 30th.

0184. **TEAL (*A. crecca*). Regular winter visitor, regular passage migrant and regular breeding summer visitor.**

1992: The monthly wildfowl counts at the principal sites were:

	1992			1993						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	4131	3398	804	562	1577	4427	4452	4874	3072	1429
Chichester Hbr	1100	394	187	273	457	696	1438	722	993	752
Pagham Hbr	761	287	27	nc	108	1404	390	119	442	116
Arundel WWT	176	62	25	62	64	22	46	63	69	38
Pulborough Brooks ..	1439*	2224*	287*	77	254	1620	1891	2697	1270	332
Pevensy Levels ...	157	23	26	-	4	326	288	238	4	69
Rye Hbr				37	263	210	164	39	68	20

* includes Amberley Wild Brooks.

1993: The monthly wildfowl counts at the principal sites were:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	4874	3072	1429	1214	2132	3022	4455	4916	5232	1469
Chichester Hbr	722	993	752	504	587	1095	1345	966	684	391
Pagham Hbr	119	442	116	236	647	467	978	1326	1636	78
Arundel WWT	63	69	38	66	58	152	72	9	35	31
Amberley										
Wild Brooks	2697	1270	332	40	140	220	610	330	905	135
Pulborough Brooks ..	238	4	69	nc	75	42	155	191	213	70
Pevensy Levels ...	246	9	2	-	-	19	30	64	16	4
Darwell Res.	258	-	-	-	-	4	56	108	42	-
Powdermill Res. ...	39	68	20	68	89	150	87	130	13	10

The highest counts in Jan. were 770 at Pagham Hbr on 12th, 2697 at Pulborough Brooks and 253 at Pevensy Levels on 17th, and 800 at Amberley Wild Brooks on 28th. The next co-ordinated count at Pevensy Levels was 328 on 14 Feb.

In the breeding season a remarkable 21 pairs at Pulborough Brooks produced at least 20 young, 3 pairs raised 2 young for the first time at Bewl Water and pairs were present at a few other sites.

Sept. counts included 250 at Thorney Deepes on 14th, 175 at Sidlesham Ferry on 20th and 131 at Rye Hbr on 21st. The highest numbers at the end of the year were 2400 at Pulborough Brooks, 200 at Glynde Levels on 19 Nov. and 382 at West Wittering on 11 Dec.

0186. MALLARD (*A. platyrhynchos*). Regular breeding resident and regular winter visitor.

1992: The monthly wildfowl counts at the principal sites were:

	1992				1993					
	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.		
County totals	4043	2494	1670	2914	3472	4076	4083	3975	2208	1676
Chichester Hbr	406	284	187	97	262	299	459	366	193	182
Chichester GP	64	10	22	22	44	33	44	14	40	28
Pagham Hbr	289	290	119	nc	175	355	263	96	244	67
Arundel WWT	723	299	374	806	345	726	442	561	421	342
Pulborough Brooks ..	235*	181*	120*	81	298	583	593	590	145	127
Weir Wood Res.	66	39	32	118	83	95	86	46	26	9
Arlington Res.	218	54	41	26	386	170	195	147	103	24
Darwell Res.	337	96	36	193	125	86	320	210	56	36
Alexandra Park	159	166	106	250	199	205	227	199	190	166
Rye Hbr	264	115	81	157	198	128	103	123	117	81

* includes counts for Amberley Wild Brooks.

1993: The monthly wildfowl counts at the principal sites were:

	1993				1994					
	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.		
County totals	3975	2208	1676	1879	3015	3265	3484	2840	1920	1436
Chichester Hbr	366	193	182	312	382	416	308	309	187	165
Chichester GP	14	40	28	46	38	81	58	55	37	39
Pagham Hbr	96	244	67	240	248	280	234	140	148	72
Swanbourne Lake ..	113	93	67	nc	98	102	101	125	65	60
Arundel WWT	561	421	342	365	511	461	958	353	440	440
Pulborough Brooks ..	590	145	127	398	291	390	210	243	277	75
Angmering Decoy ..	41	32	9	nc	94	45	88	72	45	37
Knepp Lake	54	34	3	nc	47	24	52	136	2	2
Ifield MP	102	43	15	nc	58	91	86	81	53	13
Arlington Res.	147	103	24	nc	116	187	215	176	85	64
Pevensley Levels ...	77	30	54	nc	100	24	51	69	38	38
Darwell Res.	210	56	36	nc	43	151	90	90	57	14
Alexandra Park	199	190	166	250	235	258	264	247	178	145
Powdermill Res.	142	22	9	nc	33	116	124	76	27	12
Rye Hbr	123	117	81	125	185	201	280	230	87	79

High numbers in Jan included: 203 at Knepp on 1st, 315 at Rye Hbr on 3rd, 211 at Pett Pools on 15th, and on 17th 210 at Darwell Res., 247 at Pevensley Levels and 590 at Pulborough Brooks.

Breeding records included 186 young in 34 broods at Bewl Water and 50-100 young from 68 pairs at Pulborough Brooks.

At the end of the year the maximum at Pulborough Brooks was 390 in Nov., and there were 235 at Arlington Res. on 5 Dec., 230 at Rye Hbr on 12th and 481 at Bewl Water on 30th. Dec. counts also included 958 at Arundel WWT and 308 in Chichester Hbr.

0189. PINTAIL (*A. acuta*). Regular winter visitor and passage migrant. Has bred.

1992: The monthly wildfowl counts at the principal sites were:

	1992				1993					
	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.		
County totals	608	378	97	8	48	873	758	740	819	470
Chichester Hbr	321	241	69	8	36	41	108	154	200	234
Pagham Hbr	174	58	-	nc	5	778	390	107	523	188
Pulborough Brooks ..	80*	49*	11*	-	-	52	257	472	87	42

* includes counts for Amberley Wild Brooks.

1993: The monthly wildfowl counts at the principal sites were:

	1993				1994					
	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.		
County totals	740	819	470	34	96	383	502	1064	873	198
Chichester Hbr	154	200	234	20	11	106	54	18	84	146
Pagham Hbr	107	523	188	14	85	195	445	596	507	7
Pulborough Brooks ..	472	87	42	-	-	52	-	345	230	38

Counts received other than official Wildfowl Counts included 140 at Thorney Island on 3 Jan., 200 at Pagham Hbr on 12 Jan., 472 at Pulborough Brooks on 17 Jan., 130 at Amberley Wild Brooks on 28 Jan., 5 at the unusual site of Glynde Levels on 9 Feb. and 100 at Fishbourne Channel on 11 Mar.

Seawatching at the regular sites produced the following numbers:

	No. of hrs watched				Total
	Jan.	Feb.	Mar.	Apr.	
Worthing	34		44E		44E
Seaford	151		21E		21E
Bexhill	188	23E	30E	6E	59E

Otherwise, there were 46 past Brighton Marina on 13 Mar. Summering birds could be found at Thorney Deepes, with a singleton noted regularly and 2 on 21 July, and singletons at Rye Hbr on 1 July and Pagham Hbr on several dates.

Returning birds were first noted in Aug. with 9 at Pagham Hbr. on 29th and 4 at Rye Hbr on 30th. Numbers remained low until 13 Oct. when 200 were noted at Pagham. 45 flew W past Clipping on 31 Oct. and at the close of the year, the only large count received was 350 at Pulborough Brooks.

0191. GARGANEY (*A. querquedula*). Regular passage migrant. Breeds most years.

The first was recorded at Pulborough Brooks on 2 Feb., then a pair at Saltdean on 8 Mar. and singles at Seaford on 13 Mar. and Rye Hbr on 16 Mar. Another pair was seen at Pevensley Levels, 4 at Arlington Res. and 7 flew past Selsey Bill, all on 20 Mar. One was at Emsworth Channel on 25 Mar., another at Coldwaltham Brooks and 4 at Seaford on 27 Mar. and a pair were at Aldsworth Pond on 28 Mar. In Apr. and May, birds were recorded at 11 sites, with 6 flying past Seaford on 9 Apr. being the largest count.

Breeding was confirmed at one site, with 3 pairs producing 9 young.

Most reports in Aug. came from Elms Farm, Icklesham with 4 on 5th and Pett Level with a maximum of 4 on 7th. Others were recorded at Rye Hbr, Pulborough Brooks and Pagham Hbr with a maximum of 3 on 1 Sept. The last bird of the year was at Rye Hbr on 13 Sept.

0194. **SHOVELER** (*A. clypeata*). Regular winter visitor, passage migrant and breeding summer visitor.

1992: The monthly wildfowl counts at the principal sites were:

County totals	1992			1993						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	66	124	241	493	373	271	296	-	-	-
Pagham Hbr	nc	9	24	29	-	2	-	-	-	-
Pulborough Brooks	nc	2	108	164	261	121	157	-	31	26
Arlington Res.	nc	4	22	176	75	10	10	-	10	10
Rye Hbr	13	95	76	66	12	26	60	-	-	-

1993: The monthly wildfowl counts at the principal sites were:

County totals	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	373	271	296	55	215	180	207	374	341	245
Pagham Hbr	-	31	26	19	13	33	12	74	25	81
Pulborough Brooks	261	121	157	11	113	55	107	118	215	140
Arlington Res.	75	10	10	nc	39	46	35	96	56	-
Rye Hbr	12	26	60	16	28	17	16	55	10	9

In Jan., the largest flocks recorded were 97 at Rye Hbr on 3rd, 261 at Pulborough Brooks on 17th and 77 at Arlington Res. on 21st. In Feb. there was a maximum of 30 at Rye Hbr on 13th, with 31 on Pevensey Levels on 18th and 44 at Sidlesham Ferry on 27th. During March, numbers continued to drop, with a maximum of 60 at Rye Hbr on 6th and 46 at Pagham Hbr on 9th.

	No. of hrs watched				Total
	Mar.	Apr.	May	June	
Worthing	16E	-	-	-	16E
Seaford	44E	43E	-	-	87E
Bexhill	7E	32E	2E	-	41E

Breeding was confirmed at 2 sites, with 8 pairs at Pulborough Brooks and possibly 3 pairs at Pevensey Levels. Birds summered at various other sites, including 10 at Rye Hbr on 23 June.

Return passage is hard to ascertain. 20 were at Rye Hbr on 16 Aug. with 14 at Pagham Hbr on 29 Aug. and 31 on 31 Aug. Peak numbers remained low throughout this period with the maximum numbers involved being 46 at Arlington Res. on 21 Nov. and 60 at Elms Farm, Icklesham on 28 Nov. The peak count was 155 at Pulborough Brooks, in Dec.

0196. **RED-CRESTED POCHARD** (*Netta rufina*). Scarce/rare winter visitor and passage migrant.

At the beginning of the year birds were recorded as follows: one at Knepp Lake on 18 Jan. (IMS), a male at Warnham MP on 30 Jan. (BMS), one at Glynde Levels on 9 Feb. (PB) and a male at Glynde Reach Clay Pit on 14 Feb. (CB).

In the autumn the first was a female at Pulborough Brooks on 19 Oct. (RSPB). A male was present with Pochard at Knepp Lake from 14 Oct. to 26 Nov. (DB). A bird considered to be of suspect origin was noted at Princes Park, Eastbourne on 18 Nov. (BIH).

0198. **POCHARD** (*Aythya ferina*). Regular winter visitor, regular passage migrant and regular breeding summer visitor.

1992: The monthly wildfowl counts at the principal sites were:

County totals	1992			1993						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester GP	39	513	677	749	1034	937	417	-	-	-
Swanbourne Lake	nc	107	66	-	16	45	31	-	-	-
Arundel WWT	27	204	263	192	308	391	76	-	-	-
Weir Wood Res.	3	-	35	38	76	26	6	-	-	-
Darwell Res.	-	3	4	11	62	3	-	-	-	-
Rye Hbr	5	25	145	174	140	96	189	-	-	-

1993: The monthly wildfowl counts at the principal sites were:

County totals	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester GP	1034	937	417	34	285	526	798	721	670	340
Swanbourne Lake	243	181	83	12	88	146	76	12	37	15
Arundel WWT	308	391	76	20	119	197	306	392	252	193
Weir Wood Res.	76	26	6	nc	2	10	21	69	60	3
Darwell Res.	62	3	-	nc	-	1	12	20	3	-
Rye Hbr	140	96	189	2	26	132	281	194	130	58

In the early part of the year, other large flocks were 155 at Northpoint Pit, Rye on 1 Jan., 54 at Warnham MP on 17 Jan., 97 at Weir Wood Res. on 28 Jan., 122 at Chichester GP on 7 Feb. and 155 at Bewl Water on 14 Feb.

In the breeding season, single pairs were recorded at Pulborough Brooks and Rye Hbr, but there was no evidence of successful breeding.

In the autumn and winter, 70 were present at Long Pit, Rye on 2 Oct. with 129 at Rye Hbr on 11 Nov. Chichester GP held 246 birds on 28 Nov., 281 birds were noted at Rye Hbr on 12 Dec., and 306 at Arundel WWT in Dec.

0202. **FERRUGINOUS DUCK** (*A. nyroca*). Rare autumn and winter visitor.

An adult male was present on Camber Pit from 3 to 5 Jan. (JWL *et al.*). It is only the second record in six years and about the 22nd in total.

0203. **TUFTED DUCK** (*A. fuligula*). Regular winter visitor and regular breeding resident.

1992: The monthly wildfowl counts at the principal sites were:

County totals	1992			1993						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester GP	219	561	733	938	877	779	645	-	-	-
Swanbourne Lake	16	90	173	150	260	231	222	-	-	-
Arundel WWT	nc	8	-	178	188	153	170	-	-	-
Ardingly Res.	71	234	238	225	147	117	59	-	-	-
Rye Hbr	-	35	3	19	11	11	8	-	-	-
	38	61	99	107	88	160	197	-	-	-

1993: The monthly wildfowl counts at the principal sites were:

County totals	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester GP	877	779	645	215	556	767	837	961	854	742
Swanbourne Lake	260	231	222	74	220	267	163	294	323	246
Arundel WWT	188	153	170	nc	61	176	243	93	151	134
Ardingly Res.	147	117	59	88	141	196	238	254	165	91
Rye Hbr	11	11	8	nc	-	9	36	44	41	18
	88	160	197	51	85	92	99	165	115	127

As the table above shows, the most important sites during the period Jan-Mar. were Chichester GP, Swanbourne Lake and Arundel WWT.

The most important site in the breeding season was Rye Hbr, with 18 pairs present. These produced 7-8 broods totalling 52 birds, but few fledged successfully. Other sites with the number of pairs in brackets were Aldsworth Pond (2), Elms Farm, Icklesham (2), Coldwaltham (2) and Glynde Reach Clay Pit (1).

Bewl Water was the most important site in the autumn and winter with 50 on 15 Aug., 78 on 19 Sept., 156 on 17 Oct. and peaking at 285 on 12 Dec. Numbers at other sites included 51 at Rye Hbr on 18 Sept., 85 there on 16 Oct., 87 at Ivy Lake, Chichester GP on 23 Nov. rising to 127 on 9 Dec. At Barcombe Res., 42 were noted on 27 Dec.

0204. SCAUP (*A. marila*). Regular winter visitor, scarce/rare passage migrant.

In Jan. one in the Cuckmere on 1-3rd, 3 on the sea off Sandyland on 1st, 8 off-shore at Hope Gap on 3rd. 11 at Camber Shore SSSI on 5th, a total of 39 for the month. A further 7 at Emsworth Channel during Feb - April and 5 on Thorney Deep between Apr - July.

Autumn's first record was a female at Pulborough North Brooks on 19 Oct. Singles were seen at Pagham Hbr and Rye Hbr during Nov. with 7 on 27th, 9 on 28th and 13 on 29th. Dec. saw 15 on 1st and 8 on 18th at Rye Hbr and 4 at Norman's Bay on 21st and 6 at Glyne Gap, Bexhill on 21st. Last record of the year was one on 30th at Ivy Lake, Chichester GP.

0206. EIDER (*Somateria mollissima*). Regular winter visitor, regular passage migrant and scarce/rare summer visitor.

Totals E for the main seawatching localities were as follows:

	Jan.	Feb.	Mar.	Apr.	Total
Selsey	-	-	39	20	59
Worthing	-	38	8	107	153
Seaford	12	-	183	215	410
Rye Hbr	22	18	38	-	72

1 Jan. saw 12 off Seaford, then mainly singles. 97 were seen off Seaford during Mar. and 96 on 10 Apr. with a month's total of 215. Bexhill recorded 122 during Apr. There were 40 off Pett Level shore on 17 Sept. and 67 W at Selsey Bill on 25 Oct. The year ended with 27 at Thorney on 31 Dec.

0212. LONG-TAILED DUCK (*Clangula hyemalis*). Regular winter visitor, scarce/rare passage migrant.

The first record was on 23 Feb. a single at Sware Deep Channel, Chichester Hbr. Singles were seen every month till May, with 4 females at Saldean on 3 Apr. 27 Oct. saw the first record of the autumn at Emsworth. Ones and twos were then seen every month, the last being 2 at Barcombe Res. on 28 Dec.

0213. COMMON SCOTER (*Melanitta nigra*). Regular spring passage migrant and regular winter visitor

Small numbers were seen during the early part of the year from several coastal locations, the largest numbers being 29 off Seaford Head on 1 Jan., 60 off Glyne Gap and 50 off Rye Hbr on 10 Feb., with 200 at the latter site on 11 Mar. A female or immature was on the Ternery Pool at Rye Hbr on 25 Feb.

Sea passage during Mar - May is summarised below:

	Mar.	Apr.	May	Total	No. per hr
Selsey	243	2578	446	3267	7.1
Worthing	607	1859	448	2914	9.7
Seaford	3386	7982	1229	12597	24.3
Bexhill	841	2578	147	3566	18.2

A few were also seen to fly W. As might be expected, the table shows that the two easterly locations recorded more and at a higher rate per hour watched. Peak numbers at Splash Point, Seaford were 1471 on 28 Mar., 1414 on 8 Apr. and 3234 on 9 Apr. On the latter date, during SE winds, 1162 were recorded at Selsey Bill and 1194 from Glyne Gap, Bexhill. The total seen at Seaford should be compared against the average total there of 9439 for the same months of 1987 - 1992.

At Pagham Hbr, one was present on several dates in April, while 2 were off Pilsey Island on 8 Apr. with 6 there on 25 Apr. and one on 6 June. In July, small numbers were recorded from several coastal sites, the most being 40 off Shoreham on 2nd, 40 W from Selsey Bill on 11th and 110 offshore from Pett Level on 30th.

There was no marked autumn sea passage, but several flocks were seen offshore during Sept - Dec., the largest numbers being 100 off Rye Hbr on 7 Nov., 81 off Brighton on 2 Dec., 120 in Cuckmere Haven on 26 Dec. and 200-220 off Pett on 12 and 31 Dec. A few individuals were also recorded from Pagham and Chichester Harbours during this period and a female or immature was present on Rye Hbr Narrow Pit on 12 Dec.

0215. VELVET SCOTER (*M. fusca*). Regular spring passage migrant and regular winter visitor.

The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2	5	6	35	9	-	-	-	-	2	3	-

A very poor showing against an annual average (1984-1992) of 244. Spring passage was particularly quiet compared to Common Scoter. The first of the year were 2 W off Worthing Beach on 6 Jan. There were 5 off Jurys Gap on 7 Feb. and 6 there on 7 Mar. Spring sea passage was recorded between 5 Apr. and 12 May but only reached double figures on one date, 9 Apr., when 14 flew E at Worthing and there were 19 E at Seaford. In the second half of the year, one flew W past Worthing on 1 Oct., one was offshore from Church Norton on 24 Oct., one was seen from Brighton on 3 Nov. and 2 were at Hove on 15 Nov.

0218. GOLDENEYE (*Bucephala clangula*). Regular winter visitor and regular passage migrant.

1992: The monthly wildfowl counts at the principal sites were:

County totals	1992					1993				
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	-	-	-	-	1	35	34	52	61	103
Pagham Hbr	-	-	-	-	-	25	21	38	48	93
Weir Wood Res.	-	-	-	nc	-	1	2	3	8	6
Rye Hbr	-	-	-	-	-	3	-	2	2	-
1992 totals	-	-	-	-	-	2	4	3	3	4

1993: The monthly wildfowl counts at the principal sites were:

County totals	1993					1994				
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	52	61	103	-	3	32	52	82	181	19
Pagham Hbr	38	48	93	-	-	21	44	71	109	14
Weir Wood Res.	3	8	6	-	1	9	8	7	7	4
Rye Hbr	2	3	4	-	-	-	-	3	-	-
1993 totals	3	3	4	-	2	1	-	-	-	-

Along the coast in Jan., there were up to 4 in the Lower Cuckmere, 4 at Rye Hbr, 6 in Pagham Hbr and 38 in Chichester Hbr. In addition one was offshore at Selsey Bill on 30 Jan. Inland during the month, reports were received of up to 3 at Weir Wood Res., one at Barcombe Res. on 8 Jan. and 6 at Bewl Water on 17 Jan. During Feb. there were 48 in Chichester Hbr, 8 in Pagham Hbr, 6 at Bewl Water and 2 at Weir Wood Res. In Mar., 5 were present at Rye Hbr on 4th, 3 at Arlington Res. on 6 Mar., 3 at Weir Wood Res. on 7 Mar. and up to 7 in Pagham Hbr until 16th. This species is unusual on spring seawatches, but 4 males on 9 Mar. and 2 females or immatures on 12th flew E past Splash Point, Seaford.

The first arrivals of the autumn were early. Six were in Pagham Hbr on 6 Aug. and a single was at Arlington Res. from 19 Aug - 14 Sept., on the last date being joined by a second bird. In Oct., 2 appeared at Rye Hbr on 15th, numbers in Chichester Hbr reached 7 on 30 Oct. and there were records of singles from Worthing, Goring, Chichester GP and the Severals. Up to 4 were at Icklesham during 28 Oct - 9 Nov. In Nov., numbers in Chichester Hbr had increased to 37 by 22 Nov. Elsewhere, Pagham Hbr held up to 7 and Rye Hbr 4, while inland reports came from Etchingham Bellhurst, Darwell Res., Bewl Water and White Vane Pond, Horsham. In Dec., the count in Chichester Hbr peaked at 54 on 5th, while Pagham Hbr held 8 on 29 Dec., Bewl Water 5 on 12th and up to 2 were at Rye Hbr. Other scattered reports included individuals at Arlington Res. on 5th, Sovereign Harbour Marina on 14th and Brooklands, Worthing on 24th.

0220. SMEW (*Mergus albellus*). Regular winter visitor.

Whilst not approaching 1991 figures, 1993 was better than most recent years. On 1 and 2 Jan. an adult pair was at Northpoint GP Rye Hbr, the male remaining until 5th. On 3rd one was at Camber, whilst 5 flew over Timberley Farm, Amberley at 0930 hrs. On 9th a female was seen at Northpoint GP and on 16th a male at Camber Small GP. On 17th there was a redhead present at Elms Farm, Icklesham. The Ternery Pool, Rye Hbr proved to be the most popular site with one male and 2 females on 8 Jan. increasing to 8 on 14th, varying from 1-5 and finishing with 4 on 31st. In Feb. at the same site 2-4 redheads were present from 6th to 25th. The only record in Mar. was a single at Ferry Pool, Sidlesham on 14th. Records at the end of the year were all in West Sussex. In Chichester Hbr single redheads were seen on 18.21.22 and 28 Nov. and on 1 and 14 Dec. Finally, a single redhead in Pagham Hbr on 16th.

0221. RED-BREADED MERGANSER (*M. serrator*). Regular winter visitor, regular passage migrant.

The monthly estuary counts included the following:

Country totals	1993					1994			Total
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.		
Chichester Hbr	3	21	149	161	162	93	99		
Pagham Hbr	1	17	110	81	129	83	63		
	2	4	39	49	16	10	33		

Figures for the main seawatching localities were as follows and were markedly less than last year:

	Jan.	Feb.	Mar.	Apr.	May	Total
Selsey Bill	103	32	161	126	3	425
Worthing	116	56	183	52	14	421
Newhaven	nc	nc	94	nc	nc	94
Seaford	nc	14	210	91	7	322
Glyne Gap	nc	nc	48	14	nc	62

In Jan. there were 39 W at Selsey Bill on 11th whilst Emsworth Channel held 56 on 30th. In Feb. Worthing saw the largest movement with 46 E on 28th and 69 offshore on 20th. Pagham Hbr held 54 on 18th. Mar. produced the highest spring figures at Seaford with 43 E and 91 E on 27-28th, whilst at Worthing there were 58 E

in 1 hour on 27th and 77 E on 28th, Pagham Hbr peaked at 92 on 8 Mar.

The earliest arrival was probably at Rye Hbr on 26 June. At least one could be found in Pagham Hbr from 28 June throughout July and most of Aug. (with 10 on 3rd) and Sept. Largest autumn movements were in Oct. at Selsey Bill with 64 W and in Dec. at Worthing with 93 E. Autumn concentrations included 59 at Pilsley Island on 12 Nov. and 128 around Thorney Island on 5 Dec. The only inland record was at South Brooks, Pulborough with 3 briefly on rising water on 5 Oct.

0223. GOOSANDER (*M. merganser*). Regular winter visitor.

A good start to Jan. with 4 at Amberley Wild Brooks on 2nd followed by a male at Arlington Res. on 3rd. At Glyne Gap, Bexhill a male and female flew W on 5th and another male W on 7th. A single at Wakehurst Place on 8th, a female at Bewl Water on 9th and again at Glyne Gap on 16th. In Feb. a male was seen at 2 sites at Rye Hbr on 15th, 20th and 21st, probably the same bird. A pair were present at Darwell Res. on 14 Mar.

The first winter bird was a redhead at Darwell Res. on 17 Oct., whilst at Pagham Hbr 2 were seen on 21st increasing to 5 on 24th at the Severals. Two redheads were present at Weir Wood Res. for most of Nov. and one at Darwell Res. on 14th. A party of 14 redheads were at Pilsley Sands on 19th and a single at Bewl Water on 20th. One at Pett Level on 22nd and 2 over R. Rother estuary on 23rd were perhaps among the 4 at the Long Pit, Rye Hbr on 27th. A single was around Thorney Island at the end of the month. In Dec. there were 2 redheads at Weir Wood Res. on 2nd and one at North Brooks, Pulborough on 11th. Finally, one was seen at Church Norton on 26-27th.

0225. CAT.C. RUDDY DUCK (*Oxyura jamaicensis*). Introduced, breeding resident and both a winter/summer visitor.

Recorded from various sites (maxima in brackets): Ivy Lake, Chichester GP (7), Rye Hbr (7), Drayton GP, Chichester (7), Swanbourne Lake, Arundel (3 pairs), Thorney Deepes (1 male - present into July) and Pett Pools (2).

Two pairs raised 5 young each at Rye Hbr, the first breeding record for the site and the only record received.

During Sept-Dec., birds were recorded at various sites (maxima in brackets): Rye Hbr (2), Arlington Res. (1), Whyke GP, Chichester (1), Pagham Lagoon (1), Barcombe Res. (1) and Drayton GP, Chichester (5).

0231. HONEY BUZZARD (*Pernis apivorus*). Scarce passage migrant and summer visitor, has bred.

With a total of 14 birds on 10 different dates, an excellent year for this species. First migrants were seen at Pagham (TJE,SJK) and Selsey Bill (mo) on 12 May. A further 2 were reported from inland sites, the first at Amberley Wild Brooks on 9 June (CEH) and the second at Burgess Hill on 17 July (TWP).

The rest were autumn migrants, all seen in September. There was a single at Barnham on 1 Sept.(OM), 2 at Beachy Head on 12 Sept. (NIT,MN), a single at Beeding Hill on 16 and 17 Sept (ARK), a single at Beachy Head on 18 Sept.(RJF), 2 flying east at East Wittering on 22 Sept. (MGR), and finally, both an adult and a juvenile at Lancing Clump on 24 Sept.(PMB).

0239. RED KITE (*Milvus milvus*). Scarce/rare passage migrant and winter visitor, has bred.

Just one authenticated record, an autumn migrant, seen at High Hill, Balsdean, on 18 Oct.(GAS). The viewing was unfortunately brief. Mobbing crows were in attendance.

0260. **MARSH HARRIER** (*Circus aeruginosus*). **Regular passage migrant and scarce/rare winter visitor.**

Of the total of 90 records submitted, 69 were autumn migrants seen between 10 Aug. and 14 Oct. Duplication of records is inevitable, and it is very difficult to judge with any real precision the number of individuals involved. However, a minimum of 30 seems likely.

There were no reports of over-wintering birds, and the first sighting for the year was at Pilsey Island on 24 Mar. All the spring records were from the coast, except a single at Pulborough Brooks on 3 May. A migrant coming off the sea, was seen from Newhaven Tide Mills and Splash Point, Seaford on 8 May.

All the autumn records were coastal sightings except for a single at Ashdown Forest on 13 and 15 Aug., and another single at Pulborough Brooks on 9 Oct.

The Pagham/Sidlesham Ferry area had records of singles on no fewer than 20 dates between 25 Aug. and 12 Oct. The Rye area had records for 11 dates, between 14 Aug. and 14 Oct., which was also the last sighting for the year.

The probable monthly minima were as follows:

	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.
	1	2	7	1	-	8	8	3

0261. **HEN HARRIER** (*C. cyaneus*). **Regular winter visitor and scarce passage migrant.**

Rather a poor year for this species with just 59 reports submitted. A mere 19 records for the period Jan.-March. Only 4 records of male birds.

As usual most of the sightings came from a few localities, just 10 broad areas. To some extent this may reflect observer activity, as parts of the coast are watched very closely, and equally, some parts of the hinterland, little, if at all.

Pagham Hbr had 6 records, all ringtails, one early in the year, on 7 Feb., otherwise all were autumn birds, on 24 Sept., 17 and 26 Oct. and 7, 8 and 27 Nov. Adjacent Selsey Bill had one record only, on 19 Sept., and Thorney Island a single on 24 Oct.

Inland, in the west of the county, West Dean Woods produced 2 reports, on 13 Mar. and 17 Oct. Lavington Common had 5 records, all ringtails, seen on 3 dates from 17 Jan.-13 Feb., and in late autumn, on 23 Oct. and 27 Nov. Finally, there were 5 records in the Pulborough Brooks/Rackham area, with ringtails seen on 2 and 19 Jan., 23 Mar. and 25 Sept., and a male on 10 Oct., the only male seen in West Sussex for the whole year.

In the east of the county, the Rye area produced 12 records. There were ringtails on 1 and 17 Jan., 8 Feb. and 11 Mar., and in the latter part of the year, further ringtails on 25 Sept., 15 and 16 Oct., and 16, 25, and 28 Nov. The only male was seen on 4 Feb.

Elsewhere, along the coast, one came off the sea at Peacehaven Cliffs on 24 Oct. A further 3 ringtails at Seaford Head, on 3 and 30 Jan., with a male on 20 Mar. Just one sighting at Beachy Head on 15 Oct., and 4 reports from Pevensy Levels on 3 Jan., 10 Aug., and 3 and 21 Dec.

Inland, in the east, there were 4 records for Ashdown Forest, with a ringtail seen on 27 March and 4 Dec., and a male reported on 16 Oct. and 6 Dec.

The monthly minima were as follows:

	Jan.	Feb.	Mar.	Apr.	Aug.	Sept.	Oct.	Nov.	Dec.
Adult males			1			2		1	
Ringtails	5	4	6	1	1	4	10	3	4

The latest land-based sighting for the spring was at Ashdown Four Counties, on 27 Mar. However, a ringtail was spotted 1 km offshore at Hastings Beach, on 11 Apr. In the early autumn a solitary ringtail was seen at Pevensy Levels on 10 Aug. Not until late Sept. was there any sort of influx, beginning at Selsey Bill on 19 Sept.

0263. **MONTAGU'S HARRIER** (*C. pygmaeus*). **Scarce/rare passage migrant. Has bred.**

A good year for this species, with a probable minimum of 6 sightings. An excellent start with an adult male at Beachy Head on 2 May (JFC,DC). This was followed by a female at Rye (BJY).

The only record received during the breeding season was a brief view of a female on 7 June.

A further 3 reports for the autumn. A juvenile at Steyning Round Hill on 21 Aug.(ARK), a ringtail at Thorney Deepes on 4-5 Sept. (PJB), and finally another bird at Beachy Head on 19 Sept.(TWP).

0267. **GOSHAWK** (*Accipiter gentilis*). **Scarce breeding resident, scarce passage migrant and summer/winter visitor.**

There is one known breeding population in West Sussex. One of these pairs raised 3 young. No doubt other breeding pairs exist, but the Goshawk can be highly secretive, as can its observers!

Pagham continues to produce several sightings annually, with spring dates of 7 Feb., 13 Mar. and 13 Apr., and again in the autumn on 25 Sept. and 2, 7, 21 and 31 Oct.

The Rye area was visited by both a male and a female. The male was seen on three occasions at Elms Farm, Icklesham from 16-22 Oct. A female was seen at Harbour Farm, Rye on 22 Nov.

Other sightings came from Charleston Reedbed on 7 Aug., Westbourne near Emsworth on 25 Aug., and finally one at Beachy Head on 16 Oct.

It is worth repeating that the solitary, soaring hawk can cause diagnostic problems even for the most seasoned observer. Caution needs to be exercised, and full details submitted.

0269. **SPARROWHAWK** (*A. nisus*). **Regular breeding resident and scarce passage migrant.**

A total of 396 records received from numerous localities throughout the county, providing good evidence that this accipiter is once again a common resident. Only 5 observers sent in records of successful breeding, but this simply reflects the secretive nature of breeding hawks, rather than the scarcity of breeding pairs. One pair at Pulborough Brooks raised 4 young.

Remarkably few Sparrowhawk strikes are witnessed. Prey seen taken were Dunlin, Collared Dove and Redwing. One observer watched 2 hawks on 15 Aug. attacking the Pilsey Island wader roost, the birds apparently working as a team.

The only possible migrant was one on 3 Apr. at Beachy Head.

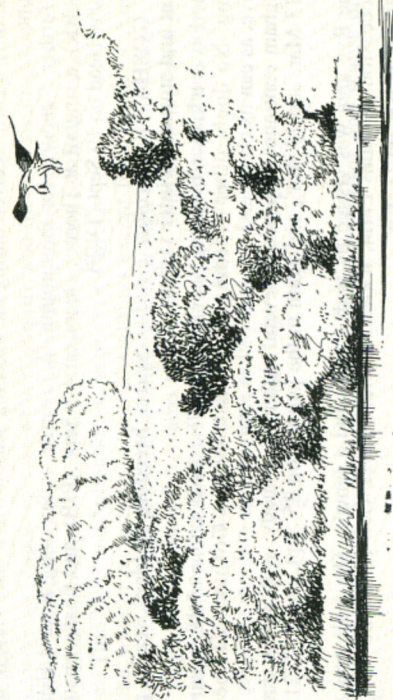
0287. **BUZZARD** (*Buteo buteo*). **Regular winter visitor, scarce passage migrant, scarce summer visitor, has bred or breeds irregularly.**

There is perhaps some evidence that the Common Buzzard is becoming a little less scarce in the county. During the breeding season at least 5 pairs were located in West Sussex, and although only one pair was known to have bred, this probably underestimates the true position. No records were submitted for East Sussex breeding pairs. It is clear that some observers continue to be very secretive about their local birds, and the true breeding population is probably closer to 7-10 pairs.

Spring migrants were recorded on 6 dates, the first on 19 Mar. at Burgess Hill, followed by other singles at Winchelsea on 31 Mar., Hollingbury Camp on 11 Apr., Fishbourne on 14 April, Boxgrove near Chichester on 20 Apr., and finally a late bird at Shoreham-by-Sea on 13 June.

Autumn passage was recorded from 10 Aug.-30 Oct., involving a probable total of 12 birds at coastal locations and 13 singles from widely-spread sites inland. It is clearly not possible to rule out some duplication.

The Rye area had singles on 5 dates, 19 Aug., 2 and 4 Sept., 3 and 10 Oct. The Pagham area had singles on 4 dates, 28 Aug., 2, 16, and 18 Sept. Beachy Head had sightings on 3 dates, a single on 12 Sept. accompanied by a Honey Buzzard, another on 14 Sept. which was seen to fly out to sea, and finally 2 on 15 Oct.



0301. **OSPREY** (*Pandion haliaetus*). **Regular passage migrant.**

An exceptional year for this species with 97 records received. Allowing for the inevitable duplication a probable minimum of 52 birds were involved, 29 in the spring and 23 in the autumn. This is a county record, the previous highest totals were 48 in 1991 and 30 in 1992. The earliest migrant was seen at Bewl Water, on 24 Mar., and both Thorney Island and Weir Wood Res. had their latest sighting on 13 Oct.

Several birds were seen to come off the sea, or were clearly fresh arrivals. There were singles at Beachy Head on 3 Apr. and 18 May, singles at Splash Point, Seaford on 10 and 30 Apr., and 17 May, and further individuals at Worthing Beach on 30 Apr. and 6 May, Selsey Bill on 8 May and Newhaven Tidemills on 10 May.

The records can otherwise be grouped and summarised as follows:

Pagham Hbr. Single birds on 4, 5, 17 and 30 Apr. and 29 May-3 June. In the autumn, further singles on 4 and 8 Sept.

Weir Wood Res. A probable minimum total of 12 birds. An early migrant seen on 1 and 3 Apr. A single on 20 May and 2 on 11 June. A late summer bird arrived on 1 July and stayed until 3 Aug. It was joined briefly by a second adult between 23-25 July, and an immature on 2 and 3 Aug. More singles on 8 and 19 Aug., the latter staying until 25 Aug. Two birds were present on 6 Sept., and finally an immature arrived on 13 Sept., and stayed until 13 Oct., to cap a remarkable year at this site.

Arlington Res. A single on 28 Apr., joined by a second on 30 Apr., one seen to catch a good-size trout. Another single on 15 May.

Bewl Water. An exceptionally early bird on 24 March. Further spring birds on 4 Apr. and 15 May. In the autumn an immature arrived on 31 Aug. and stayed until 3 Sept. There were 2 birds between 6-17 Sept. The final sighting was on 3 Oct.

Icklesham and Rye. Only 2 spring birds, on 30 Apr. and 15 May, and in the autumn again just 2 sightings on 25 Aug. and 2 Oct.

Thorney Island. Many autumn sightings between 27 Aug. and 13 Oct., on this latter date seen to catch a mullet.

Elsewhere singles were reported as follows: Pulborough Brooks on 25 May, Warnham MP on 28 July, Wakehurst Place on 16 Aug., Littlehampton on 28 Aug., Pevensey Middle Bridge on 28 and 30 Aug., Broadwater, Worthing on 17 Sept., and

finally Hastings Ore on 2 Oct.

0304. **KESTREL** (*Falco tinnunculus*). **Regular breeding resident.**

Many records received. Perhaps the more interesting relate to breeding pairs within defined areas. Thorney Island had 4 pairs, Bewl Water 3 pairs and Cissbury Ring 2 pairs. The Pevensey Levels co-ordinated counts produced a total of 32 on 17 Jan. and 19 on 14 Feb. One pair used a nest box, rearing 3 young.

0309. **MERLIN** (*F. columbarius*). **Regular winter visitor and regular passage migrant.**

Over 200 sightings were recorded for the year, but as usual virtually all of the reports were from just a few localities. The Chichester and Rye areas produced the bulk of the records, with singles seen on 37 dates at both sites. At Beachy Head there were sightings on 17 dates, at Pevensey Levels singles on 7 dates, but 3 located on the co-ordinated count on 14 Feb., and the coastline from Climping to Seaford produced records on 22 dates.

It is interesting to note that apart from the 2 birds that regularly hunted the Pulborough Brooks area in the early winter, there was only one bird located more than 10 km inland, and this was at Horney Common, Maresfield on 24 January. Astonishingly, there were just 7 downland records for the entire year! One bird was seen at Steyning Round Hill on 16 Jan., but the rest were autumn birds reported from Glynde Reach to the east, and Cissbury Ring to the west.

Allowing for the inevitable duplication of records, the probable monthly minima were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	9	8	4	1	-	2	3	9	13	8	6

The latest spring bird was seen coming off the sea at Brighton Marina on 11 May (PB) and the earliest autumn sighting was at Roedean near Brighton on 3 July (PB).

0310. **HOBBY** (*Falco subbuteo*). **Scarce breeding summer visitor and regular passage migrant.**

First recorded on 17 Apr. at Cuckfield, 18 Apr. at Thorney Island and 19 Apr. at Brighton Wild Park. All dates rather earlier than usual, especially the inland record at Cuckfield.

An excellent spring passage of at least 45 birds, with 8 seen to come off the sea, including 3 on 22 May at Beachy Head. Inland, one observer had 8 different birds in 2 adjacent locations within the Arun Valley, a traditional stronghold.

During the breeding season reports were received from 42 suitable localities. Even this high figure almost certainly underestimates the true breeding population in the county. Only 4 successful pairs reported, 2 pairs rearing 2 young, the other 2 pairs just one young.

A total of 212 records for the autumn. Even allowing for much duplication, an excellent passage. October sightings came from 8 localities, the last inland record at Knapp, with 2 flying south on 15 Oct. and finally one at Elms Farm, Icklesham on 16 Oct.

0320. **PEREGRINE** (*F. peregrinus*). **Regular winter visitor and regular passage migrant, has bred.**

This species now has a tenuous hold as a breeding resident, with perhaps 4-5 pairs in the county. It would appear that not all of the pairs, as yet, are attempting to breed. At least one pair produced young.

Since it is resident, it is not surprising that sightings have increased dramatically and several hundred records were received. As usual, most reports were from the well-watched coastal localities. These records can be grouped and summarised as follows:

Chichester and Pagham Hbrs. Seen in all months, apart from June. The high tide roost at Pilsley Island was again a favourite target. Prey seen taken in this general area included Grey Plover, Dunlin and Lapwing. Interesting sightings included the mobbing of the Little Egrets on 23 Aug., mobbing of an Osprey with talon grappling on 2 Sept., and a pair of Peregrine working as a team attacking the wader roost on 7 Oct.

Lancing-Beachy Head Coastline. A long stretch of coastline designated for reasons of security. Seen all months. Many sightings of pairs at 4 locations. One pair raised 2 young. There were several reports of 3 birds seen together, at 4 localities, but it is unclear as to whether one or more family parties was involved. Dates seen, 11 Sept., 2, 9, 17 Oct. and 26 Nov.

Pevensey Levels. Seen on 5 dates, 17 Jan., 14 Feb., 7, 25 Mar. and 11 Nov.

Pett and Icklesham Levels and Rye Hbr. Seen on at least 21 dates in all months, except May and June.

Arun Valley. In the early part of the year from Jan-Mar. there were 2 present. A single on 16 May, otherwise not seen until 28 Aug., at Amberley Mount, and then singles intermittently at Pulborough Brooks from 30 Aug. until the end of the year. A male was most commonly seen attacking ducks at low level.

Elsewhere, singles were reported as follows: at Glynde Levels on 5 Feb. and 26 Dec., an immature at Wartling on 23 July, at Arlington Res. on 3 Aug. and 28 Nov., a juvenile at Coombe Haven on 12 Oct., one at Weir Wood Res. on 17 Oct., a welcome first record for Woods Mill on 20 Nov., and finally the last record for the year, a single at Mount Harry near Stammer on 29 Dec.

0358. RED-LEGGED PARTRIDGE (*Alectoris rufa*). Resident. Status uncertain due to introduction of CHUKARS (*A. chukar*) and subsequent hybridisation.

Records, mostly of pairs and singles, from many parts of the county but with maxima of 40 at Ditchling and 48 at Piddinghoe in Nov. and Sept. respectively. Interestingly, a mixed covey with Grey Partridge containing 11 of each species was observed at Amberley Wild Brooks in Oct.

0367. GREY PARTRIDGE (*Perdix perdix*). Regular breeding resident.

Reports of pairs during the breeding season came from many parts of the county but young were seen at only 6 locations. Maximum counts in the autumn were 35 at Harbour Farm, Rye and 21 at Sheepcote Valley, Brighton. A mixed covey with Red-legged Partridge, containing 11 of each species, was observed at Amberley Wild Brooks.

0370. QUAIL (*Coturnix coturnix*). Scarce passage migrant and summer visitor. Breeds irregularly.

Most of the records, which were received from 9 different sites, relate to calling birds. No evidence to confirm breeding was reported. A single bird was ringed at Icklesham. Records were received from 10 May to 5 Oct.

0394. PHEASANT (*Phasianus colchicus*). Regular breeding resident.

This common species is not regularly recorded, reports being received from only 10 sites. In view of the numbers reared and released annually for sporting purposes any records are of doubtful significance.

0396. Cat.C. GOLDEN PHEASANT (*Chrysolophus pictus*). Feral population.

The feral population remains confined to Kingley Vale and West Dean Woods with a possible 14 breeding pairs. A maximum of 5 flavistic males was seen at Kingley Vale.

0397. LADY AMHERST'S PHEASANT (*C. amherstiae*). Introduced. Possibly feral population, although some records may refer to escapes.

Two birds were recorded, one at Shopham Bridge, near Byworth on 30 Apr. and one at Burton MP on 2 Nov.

0407. WATER RAIL (*Rallus aquaticus*). Regular winter visitor and scarce passage migrant. Breeds most years.

The approximate minimum monthly totals of non-breeding birds were as follows:

No. of sites	Jan.	Feb.	Mar.	Apr.	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of birds	11	5	5	7	3	3	4	8	9	7
	58	47	21	13	4	8	6	16	17	49

In the breeding season birds were noted at 3 sites but there was no proof of breeding.

0408. SPOTTED CRAKE (*Porzana porzana*). Scarce/rare summer visitor and scarce/rare passage migrant.

Six records, the first of a single at Coldwaltham Brooks on 23 Apr. (RP). Two were heard calling at a site in East Sussex on 30 Apr. Three were recorded at Icklesham: a juvenile or first-winter ringed on 22 Sept. was re-trapped on 23 Sept. and singles were recorded on 8 and 10 Oct. (all TS).

0424. MOORHEN (*Gallinula chloropus*). Regular breeding resident.

Largest counts at the beginning of the year were 37 at Pulborough Brooks in Jan., 58 on 14 Feb. at Pevensey Levels and 32 at Norton Pond on 28 Feb. Counts during the breeding season included 40-50 pairs at Pevensey Levels, 22 broods comprising 38 young at Bewl Water and 15 pairs breeding at Pulborough Brooks. Records for the latter part of the year included 95 at Bewl Water on 19 Sept., 44 at Norton Pond on 28 Nov., 45 at Brooklands, Worthing on 11 Dec. and a maximum count of 40 during Dec. at Pulborough Brooks.

0429. COOT (*Fulica atra*). Regular breeding resident, regular winter visitor.

1992: The monthly wildfowl counts at the principal sites were:

County totals	1992				1993					
	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.	Jan.	Feb.	Mar.	Sept. Oct. Nov. Dec.		
Chichester Hbr	2232	1725	1293	723	1431	1745	1820	1842	1447	985
Chichester GP	1201	778	308	36	15	31	50	20	40	34
Pagham Hbr.	78	60	45	nc	48	30	31	18	564	539
Swanbourne Lake	23	57	41	20	25	32	30	32	43	38
Arunel WWT	49	38	36	56	68	62	92	54	54	37
Ardingly Res.	56	42	20	16	32	45	51	50	21	16
Bewl Water	156	221	118	137	179	219	191	331	140	141
Icklesham	30	30	20	58	42	43	82	47	50	12
Rye Hbr	304	240	126	200	212	337	351	546	300	297

1993: The monthly wildfowl counts at the principal sites were:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	1842	1447	985	757	1063	1126	1161	1226	1279	810
Chichester Hbr	20	40	34	61	44	38	85	54	97	34
Chichester GP	564	539	217	333	499	507	204	533	402	241
Pagham Hbr.....	18	43	38	60	43	49	29	36	62	51
Swanbourne Lake	32	43	36	nc	35	25	74	43	52	31
Arundel WWT	92	54	37	49	64	71	74	59	52	44
Ardingly Res.	50	21	16	nc	44	67	86	89	50	29
Darwell Res.	24	32	23	nc	1	-	15	17	31	14
Rye Hbr	546	300	297	248	282	324	553	323	377	211

Other counts in the earlier part of the year included 486 at Rye Hbr on 9 Jan., 331 at Bewl Water on 17 Jan., 435 at Chichester GP on 7 Feb. and 200 at Scone Court GP on 19 Feb. During the breeding season 10 sites reported young with 7 broods at Thorney Deepes, 3 pairs successful on Project Pool at Pett Level and 34 broods comprising 83 young seen at Bewl Water. Records in the latter part of the year included 68 at Glynde Reach Clay Pits on 12 Sept., a good count at this site, 84 at Thorney Deepes on 30 Oct. and 864 at Chichester GP on 28 Nov. In Dec. Rye Hbr recorded 527 on 12th, 89 were at Brooklands, Worthing on 24th and 421 at Bewl Water on 30th.

0433. CRANE (*Grus grus*). Scarce and irregular passage migrant.

At least 3 birds were recorded. On 24 Oct. 2 birds were seen flying over Pagham (SJK). Patching (TJW) and Newhaven (ASC). On 11 Dec. a single flew across Thorney Island (CBC) and, presumably the same bird, flew in to roost at Pulborough Brooks, leaving the next morning. The record of a single at West Wittering on 17 Dec. (PC) may relate to the same bird.

0450. OYSTERCATCHER (*Haematopus ostralegus*). Regular winter visitor, regular passage migrant, breeds most years.

The estuary counts were as follows:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	1445	1565	1381	2451	2151	2013	1922	1734	2157	1258
Chichester Hbr	1162	1151	583	1383	1309	1245	1182	1133	1265	585
Climping	14	25	51	79	9	129	119	42	78	113
Pagham Hbr	-	105	204	763	603	335	372	248	453	279
Pett Level	-	-	6	-	-	12	8	-	-	-
Rye Hbr	220	164	526	200	193	260	230	300	347	277

In the first half of the year the largest high tide roosts were 507 at Rye Hbr LNR on 28 Feb., 306 at Pilsey Island on 24 May and 105 at Climping - Littlehampton Gap on 13 Feb.

Breeding was reported from just 4 sites; one pair at Cobnore Farm, 2 pairs at Cuckmere Haven, 20 pairs at Rye Hbr SSSI. 2 pairs at Rye Hbr Village (including one pair suspected of nesting on factory roof) and 6 pairs at Thorney Island.

In the second half of the year the largest high tide roosts were 1350 at Pilsey Island on 18 Sept. and 300 at Rye Hbr LNR on 29 Dec. Inland there was one at Pulborough Brooks on 10 Mar., one at Warnham MP on 26 Oct. An albino individual was noted at Pagham Hbr LNR on 19 Mar.

0456. AVOCET (*Recurvirostra avocetta*). Regular passage migrant. Scarce winter visitor.

Numbers in 1993 were substantially higher than in 1992. Approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
7	5	15	63	27	4	1	6	12	6	32	4

At the beginning of the year one was present on Pilsey Sands on 1 Jan. and 5 noted in Pagham Hbr/Sidlesham Ferry Pool from 12 Jan. to 13 Feb., decreasing to one by early Mar.

Early spring passage involved mostly singles, including a colour-ringed bird at Sidlesham Ferry Pool on 20 Mar. with one yellow ring on the right leg and two orange rings on the left leg. A significant movement was noted on 9 May with 10 past Glyne Gap. Bexhill, 24 past Splash Point, one at Pulborough Brooks and unusually 5 briefly at Iping Common sand pit.

Autumn records involved small numbers of birds, although 9 were present at Pett Level Pools on 7 Sept. On 1 Nov. 17 were noted at Pilsey Sands and 10 at Pagham Hbr, the latter birds remaining until 7 Nov.

0459. STONE CURLEW (*Burhinus oedipnemus*). Scarce/rare passage migrant. Has bred.

Only one record, a single bird at Pett Level on 16 July (MS).

0466. ORIENTAL PRATINCOLE (*Glareola maldivarum*). Extremely rare vagrant.

One at Middle Bridge Level, Pevensey on 29 and 30 Aug. (DC, JFC, RDME, RIF *et al.*) was almost certainly the individual that had been present in Norfolk between 14 May and 17 Aug. It is the first for the county and the third British record and has been accepted by *British Birds*.

0469. LITTLE RINGED PLOVER (*Charadrius dubius*). Regular passage migrant and regular breeding summer visitor.

Numbers in 1993 averaged higher than in 1992. Approximate monthly totals away from breeding sites were as follows:

Mar.	Apr.	May	June	July	Aug.	Sept.
4	11	8	2	40	30	10

The first of the year were a single at Sidlesham Ferry Pool from 23-30 Mar., and 3 at Pulborough Brooks on 30 Mar.

In the breeding season, up to 13 pairs were recorded at three to four sites. Productivity appeared to be low, with approximately 6 young noted. One cause of failure was fox predation as observed at Chichester GP.

Numbers in July and Aug. were substantially higher than in previous years. Of particular note were 18 at Middle Bridge, Pevensey on 22 July. The last was seen at Selsey West Fields on 16 Sept.

0470. RINGED PLOVER (*C. hiaticula*). Regular winter visitor, regular passage migrant and breeding summer visitor.

The estuary counts were as follows:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	948	749	458	1293	718	860	551	595	595	253
Chichester Hbr	564	389	198	521	501	615	346	326	252	50
Pagham Hbr.....	148	58	66	477	3	3	38	2	110	24
Climping	82	46	15	62	7	71	114	70	86	41
R. Adur	93	71	67	-	151	140	nc	142	95	51
Newhaven	nc	7	16	-	14	-	-	13	11	-
Cuckmere Haven ..	6	17	10	18	1	22	-	1	11	nc
Rye Hbr	-	78	32	81	30	1	-	10	27	75

The major roost at Pilsey Island varied from 512 on 8 Jan., to 267 on 6 Feb., 174

on 6 Mar., 59 on 4 Apr., 562 on 12 May, 128 on 26 May, 42 on 3 June, 274 on 30 July, 575 on 13 Aug., 1058 on 19 Aug., 750 on 3 Sept., 598 on 12 Nov. and 366 on 17 Dec. (CBC). Other concentrations (greater than 50) were 60 at Goring Gap on 13 Jan., 80 at Newhaven Tide Mills on 30 Jan., 94 at Rye Hbr LNR on 29 Aug., 53 on River Adur at Shoreham on 30 Aug., 79 at Rye saltings on 18 Sept., 60 at Climping Beach on 7 Nov. and 60 at Brighton Marina on 2 Dec.

Inland there was one at Weir Wood Res. on 3 Jan., 1-3 at Pulborough Brooks in May, July and Aug., one pair at Steyning Round Hill in May, one at Arlington Res. on 14 Aug., 6 there on 7 Sept., one immature at Bewl Water on 12 Sept. and 3 at Weir Wood Res. on 13 Sept.

Breeding records were received from just 11 sites; 2 pairs at Brighton Marina, one pair raised 2 young at Glyne Gap, Bexhill, 3 pairs displaying at Widewater, one pair displaying at the Crumbles, 8 pairs with 6 chicks at Pilsey Island, 2 pairs at North Stakes Island, one pair raised 2 young at Worthing, 2 pairs at Selsey West Fields, one pair raised 2 young at Cuckmere Haven, 50-55 pairs raised many young at Rye Hbr LNR and inland one pair nested in a crop of linseed at Steyning Round Hill.

0477. KENTISH PLOVER (*C. alexandrinus*). Scarce/rare passage migrant, has bred.

After a complete absence in 1992, 7 birds were recorded in 1993. Typically the first was a female at Pilsey Sands on 29 Apr. (CBC), followed by a male at Selsey Bill on 21 May (IC, OM *et al.*).

In the autumn the first was a male at Pett Pools on 14 Sept. (DJF), and 3 were present on Pilsey Sands on 16 Sept., declining to 2 on 17 Sept. and to one on 18 and 19 Sept. (CBC). Lastly one male was found at Rye Hbr shore on 9 Oct. (DJF).



0482. DOTTEREL (*Eudromias morinellus*). Scarce/rare passage migrant.

Two spring records, singles at Saltdean on 29 Apr. (MK) and Balsdean on 10 May (GAS). Five birds were recorded at Belle Tout during the autumn, one on 19 Sept. (mo) and 4 on 10 Oct. (TWP).

0485. GOLDEN PLOVER (*Pluvialis apricaria*). Regular winter visitor and scarce passage migrant.

The estuary counts were as follows:

	1993					1994				
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	101	400	615	64	53	1227	1094	1782	900	1
Pagham Hbr	-	-	-	45	2	8	262	155	268	-
Rye Hbr	-	45	500	-	-	62	150	60	54	3

There was a cold weather movement in early Jan. 480 S and 1590 S in one hour were recorded at Seafood Head on 2 Jan. and 3 Jan. respectively. Also on the latter date 94 SW were reported at Sompting. Numbers at East Head increased from 200 on 7 Jan. to 1400 on 25 Jan., whilst 450 were at Amberley Wild Brooks on 14 Jan. In Feb. there were 600 at West Wittering on 18 Feb., 550 at Bury on 20 Feb. and 800 at Amberley Wild Brooks on 24 Feb. Early Mar. numbers remained high with 500 at East Guldeford on 6 Mar., 1047 at West Wittering on 10 Mar. and 500 at Pulborough Brooks on 12 Mar. Numbers then decreased rapidly until the last single bird was seen at Selsey West Fields on 31 May.

In the autumn the first recorded were 2 at Pagham Hbr on 21 July followed by one in Chichester Hbr on 8 Aug. and 10 on Pevensey Levels on 17 Aug. The first birds to arrive at Rye and Pulborough Brooks were on 19 and 29 Aug. respectively. Numbers remained low until Oct. when 800 were recorded on the mudflats in Pagham Hbr on 18 Oct. increasing to 1530 on 12 Nov. Also in Nov., counts of 300 at Pevensey Levels on 7th and 200 at Chichester GP on 17th were noted. Large flocks in Dec. included 650 at Chichester GP on 6th, 400 at Southsea on 7th, 1100 at East Head on 16th, 1000 at Thorney Airfield on 22nd and 2000 at Pagham on 22nd. Away from the main sites there were 165 at Pulborough Brooks on 12 Dec. and 100 at Barcombe Res. on 27 Dec.

0486. GREY PLOVER (*P. squatarola*). Regular winter visitor, regular passage migrant and scarce summer visitor.

The estuary counts were as follows:

	1993					1994				
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Country totals	1695	2937	2281	3438	3077	3888	3638	2321	3215	2236
Chichester Hbr	1403	2272	1583	2481	2046	2862	2451	1765	2106	1920
Climping	34	72	73	18	25	116	151	135	92	32
Goring	94	164	159	3	6	9	-	82	30	30
Pagham Hbr	15	412	419	919	990	855	1023	413	915	251
Pett Level	135	-	23	1	-	27	11	-	-	-
R.Adur	6	17	23	7	2	11	nc	6	11	2
Rye Hbr	2	-	1	8	7	8	-	-	7	1

Easterly spring passage was good with totals for the main seawatching sites as follows:

	No. of hrs watched					Total
	Mar.	Apr.	May	June	July	
Selsey Bill	19	24	245	288	288	288
Worthing	-	21	723	744	744	744
Seafood	-	21	345	366	366	366
Glyne Gap	-	5	102	102	102	102

Peak passage was 166 E in 15 hours at Worthing on 10 May. Elsewhere a movement of 180 E in 4 hours was reported at Saltdean on 27 Apr.

At the beginning of the year, 320 W in 1.5 hours were recorded at Selsey Bill. Pilsey Sands held 1301 on 8 Jan. with numbers decreasing to 851 by 6 Mar., 300 on 8 Apr., 64 on 4 May and only 5 on 21 June. Numbers then increased from 3 on 5 July, to 41 on 2 Aug., 312 on 19 Aug. and reached 1300 by 31 Aug. A bird in full summer

plumage was reported at Rye on 1 June. This, or another bird, was also present on 28-30 June.

Inland records included a single at Pulborough Brooks on 25 Apr., an unusual 5 at Coombe Haven on 12 May, a single at Elms Farm, Icklesham on 14 Oct., another single at Sheepcote Valley, Brighton on 23 Nov. and on the same day 42 at Barcombe Mills.

0493. LAPWING (*Vanellus vanellus*). Regular breeding resident, passage migrant and winter visitor.

In Jan. and Feb., the largest numbers were to be found in the Arun valley with maximum counts of 12000 on Amberley Wild Brooks and 10970 on Pulborough Brooks. In the Adur Valley there were 1900 at Shoreham Airport and 1100 on Beeding Brooks on 8 Jan. The maximum count at Lancing was 3000 on 14 Feb. On 2 Jan. 1542 were observed flying S in a period of 45 mins. Other major flocks during this period were 3000 on the Thorney Channel mudflats, 2500 at Sidlesham and 2500 at Hurstpierpoint.

Some 285 birds were reported during the breeding season from 20 different locations but these included only 35 young (and of these 20 from Pulborough Brooks). After Pulborough most records came from the coastal plain W of the R. Adur and E of Eastbourne.

Flocks began to reform in July with 1000 noted on 19th at Lancing. In Aug. the peak number was 500 at Pevensey Levels. During Sept. and Oct. flocks were generally dispersed with a maximum count of 1400 at Rye LNR. A leucistic bird was seen at Newhaven Tide Mills for the 4th year on 30 Oct. and 5 Dec., on the second date with a flock of 1300. In the W of the county, 1400 were counted at Pagham Hbr on 4 Nov. and 3000 on 22 Dec. At Pulborough Brooks 11000 were present on several dates during Dec.

0496. KNOT (*Calidris canutus*). Regular winter visitor and regular passage migrant.

The estuary counts were as follows:

County totals	1993			1994		
	Jan.	Feb.	Mar.	Dec.	Jan.	Feb.
Chichester Hbr	3001	1620	637	139	17	1028
Pagham Hbr	3000	1620	637	95	15	878
				42	2	150
						24
						48
						1

Most records were again from Chichester Hbr, but Seaford and Worthing recorded reasonable numbers.

At Pilsey Sands 3000 were recorded on 8 Jan. Spring passage was good, 219 in Apr. and 1953 in May. June recorded 9, and July 70 with 14 at Pilsey Sands, 344 were recorded in Aug. with 45 roosting at Thorney Deepes, 36 at Pagham Hbr and 53 at Pilsey Sands. Sept. logged 522 with 80 at Pilsey Sands and 190 at Pagham Hbr. Nov. saw 934 with 70 at Thorney Island and 814 at Pilsey Sands. The year ended with 191 at Pagham Hbr and 1600 at Pilsey Sands.

0497. SANDERLING (*C. alba*). Regular winter visitor and regular passage migrant.

The estuary counts were as follows:

County totals	1993			1994		
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.
Chichester Hbr	184	203	195	216	41	180
Climping	149	91	52	203	26	122
Goring	12	56	43	-	13	19
Pagham Hbr	22	55	87	11	1	38
Rye Hbr	1	-	-	-	1	1
						100
						53
						8

Easterly spring passage was considerably heavier than in recent years with totals for the main seawatching sites as follows:

No. of hrs watched	1993			1994		
	Mar.	Apr.	May	Mar.	Apr.	May
Selsey Bill	393.5	31	456	-	-	-
Worthing	301	8	1087	8	6	1101
Seaford	367	-	43	-	43	407
Glyne Gap	121.5	-	11	-	11	134
						145

Peak movements were 266 E on 10 May and 277 on 12 May at Worthing. In the first three months of the year maxima of 72 at Camber Sands on 11 Jan., 100 at Goring Gap on 12 Mar. and 283 at Pilsey Sands on 28 Mar. were recorded. Away from the main sites there were 22 at Felpham, Bognor Regis on 8 Mar. and 28 at Widewater, Lancing on 27 Mar.

At Pilsey Sands 304 were present on 13 Apr., decreasing to 280 on 24 Apr., 277 on 12 May, 152 on 27 May and 22 on 4 June. There were 2 birds left on 10 June. The first returning bird was one on 30 June. Numbers then increased to 128 by 23 July and reached a maximum of 412 on 30 July. There was then a decrease to 260 on 16 Aug. followed by 203 on 17 Sept. Also in Chichester Hbr 80 were recorded roosting in the Emsworth Channel on 27 Aug., an unusual site.

Elsewhere numbers increased from 25 on 29 Nov. to 210 on 21 Dec. at Camber and the year finished with 46 at Brooklands, Worthing on 25 Dec.

There was an inland record of one at Arlington Res. on 12 May.

0501. LITTLE STINT (*C. minuta*). Regular autumn passage migrant, scarce spring passage migrant and scarce winter visitor.

The approximate minimum monthly totals were as follows:

Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	2	5	1	2	24	146	39	4	3

Early spring birds were 3 at Sidlesham Ferry on 26-27 Mar., and one in Pagham Hbr from 27th until 6 Apr. The other April single was at Pilsey Sands on 30th. In May, there were 3 in the Cuckmere on 8th, 2 on 9th, one on 13th, and singles at Pilsey Sands on 10th and Rye Hbr on 11th and 15th. The last spring bird was at Rye Hbr on 9 June.

The first returning bird was at Sidlesham Ferry on 21 July, and there were ones and twos at several sites until the last days of Aug. when 3 were at Pevensey Levels, 4 at Pilsey Sands and 9 at Sidlesham Ferry.

The total and the size of flocks, in Sept. have only been bettered in 1960. At Sidlesham Ferry, 10 on 2nd rose to 24 on 14th and a peak of 31 on 8th. At Pilsey Sands there were 14 on 14th, 34 on 15th and 46 on 17th. Up to 15 were at Pett Pools, 11 in the Lower Cuckmere, 7 at Widewater, Lancing, and smaller numbers at several other sites. There was a general decline in late Sept., but 31 were still at Pilsey Sands on 3 Oct., 12 on 6th and 6 on 13th. A few lingered longer, and in Nov. one was at Pagham Hbr on 25th and Sidlesham Ferry on 27th. Finally 2 were at Thorney Airfield on 17 Dec., with 3 on 31st.

0502. **TEMMINCK'S STINT** (*C. temminckii*). **Scarce/rare passage migrant.**

An exceptional group of 7 was on a small pool by Exceat Bridge on 8 May (PJW *et al.*). This echoes the only precedent, 7 at Sidlesham Ferry on 7 May 1981. Also in May, one was at Waltham Brooks on 8-9th (CEH, BFF).

One stayed at Sidlesham Ferry from 28 Aug. to 8 Sept. (TJE, BFF, CMJ) and 2 were at Pett Pools on 31 Aug. (JABG, CB, RFB).

0505. **WHITE-RUMPED SANDPIPER** (*C. fuscicollis*). **Very rare autumn vagrant.**

One at Pett Pools on 19 Sept. (JA, JABG) has been accepted by *British Birds* and is the 10th county record. It was only seen briefly on the ground and was consequently not aged. Other than two shot last century it is the first not to stay for at least 3 days.

0509. **CURLEW SANDPIPER** (*C. ferruginea*). **Regular autumn passage migrant and scarce spring migrant.**

The approximate monthly totals were as follows:

Apr.	May	June	July	Aug.	Sept.	Oct.
3	8	2	10	64	90	7

A good year, 102 being the average showing, 1983 - 1992. Passage started early with a single at Sidlesham Ferry on 8 Apr. followed by 2 at Icklesham on 30 Apr. In the first half of May there were up to 2 at Sidlesham Ferry, 2 at Pilsey and a single individual in summer-plumage at Rye Hbr. Then, 2 at Sidlesham Ferry on 20 May, one in Pagham Hbr on 12 June and one at Rye Hbr on 18 June.

Return passage started on 20 July with 3 at Pett Pools and one at Rye Hbr, closely followed by singles at Pilsey and Pevensey Bridge Level on 24 July. There were 15 at Pilsey on 2 Aug. Otherwise, passage was light during late July and up to the last few days of Aug., with a few individuals also reported from Sidlesham Ferry, Pagham Hbr, Pett Pools, Rye Hbr, R. Adur and the Midrips. Then on 27 Aug., 6 were present at Pett Pools increasing to 10 on 3-4 Sept. Pevensey Bridge Level held up to 6 during 28 Aug - 1 Sept., Sidlesham Ferry hosted 6 on 29 Aug. increasing to 17 on 30 Aug. and peaking at 23 on 4 and 8 Sept. Numbers at Pilsey climbed from 6 on 30 Aug. to 13 on 1 Sept. Rye Hbr, Playden Star Lock, R. Adur, Climping and Thorney Island also held singles during late Aug. and early Sept. After a brief lull, numbers at Sidlesham Ferry and Pagham Hbr increased again to 10 on 22 Sept., while 18 were recorded at Pilsey on 18 Sept. Away from these two localities, singles were also reported from the Union Canal at E. Guldeford on 18 Sept., Weir Wood Res. on 21 Sept. and 4 Oct., the Lower Cuckmere on 2 Oct. and Rye Hbr on 9-10 Oct. The last was in Pagham Hbr on 28 Oct.

0510. **PURPLE SANDPIPER** (*C. maritima*). **Regular winter visitor and scarce passage migrant.**

The peak monthly counts were as follows at all sites reported:

	Jan.	Feb.	Mar.	Apr.	May	Oct.	Nov.	Dec.
Glyne Gap	17	20	14	13	-	3	51	-
Langney Point	-	-	-	-	-	-	1	-
Seaford	-	-	-	1	-	-	-	-
Newhaven	11	6	-	-	3	-	2	1
Brighton Marina ...	-	-	-	-	-	1	-	2
Shoreham	-	1	-	-	-	-	2	1
Littlehampton	1	1	1	1	-	-	-	1
Church Norton	-	-	-	-	-	2	-	-
Chichester Hbr.	-	-	-	2	-	-	-	-

The Nov. peak at Glyne Gap was recorded at one high tide only on 12 Dec.

0512. **DUNLIN** (*C. alpina*). **Regular winter visitor, regular passage migrant and scarce summer visitor.**

The estuary counts were as follows:

	1993			1994		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
Country totals	17998	13555	11044	2523	18625	21330
Chichester Hbr	16590	10288	9091	1150	16655	19033
Pagham Hbr	287	1286	832	1193	1817	2001
Goring	67	232	260	24	4	8
Adur	800	1505	701	35	95	156
Pett Level	108	28	30	12	2	30
Rye Hbr	-	91	87	89	45	91

Easterly spring passage totals included 103 off Worthing Beach in Apr. and in May 709 off Worthing and 1124 off selsey Bill.

Pilsey Sands recorded 200 on 8 Apr. and 1000 on 24th, whilst 8 summer-plumage birds were seen at Rye LNR on 19th. In May there were 1424 at Pilsey Sands. Records for July included 4666 at Pilsey Sands and 935 at Sidlesham Ferry. Aug. produced 4000 at Pilsey Sands, increasing to 14000 by 16 Oct. to 15000 by 12 Nov. and dropping to 12120 on 11 Dec.

0514. **BROAD-BILLED SANDPIPER** (*Limicola falcinellus*). **Very rare vagrant.**

An adult in summer-plumage at Sidlesham Ferry on 1 and 2 May moved into Pagham Hbr at low tide (AD *et al.*). It has been accepted by *British Birds* and is only the 7th county record.

0516. **BUFF-BREASTED SANDPIPER** (*Tryngites subtrifacollis*). **Very rare autumn vagrant.**

An adult at Ham Farm, Sidlesham from 18-23 Sept. (PWB *et al.*) is only the 8th county record, although the 5th in Sept.

0517. **RUFF** (*Philomachus pugnax*). **Regular winter visitor and regular passage migrant.**

Good numbers were recorded in Jan., East Head having 8 on 7th rising to 17 by 25th, whilst West Wittering had 15 on 15th. Amberley Wild Brooks recorded 24 on 23 Jan. and Timberley Farm 24 on 23rd. A max. of 66 was recorded at Pulborough Brooks during the month which fell to 36 by 14 Feb. and to 12 on 14 Mar. Sidlesham Ferry recorded a total of 16 during Mar. increasing to 43 during Apr. Pevensey Levels recorded 14 during May. A summer-plumage male was seen at Sidlesham Ferry on 23 June and a juvenile at Ternery Pool, Rye on 8 July. 26 were seen on Pevensey Levels during July rising to 144 during Aug. Pett Pools recorded 14 during July and 15 in Aug. During Sept. 42 were seen at Sidlesham Ferry, 31 at Pagham Hbr North Wall, 29 at Pagham West Side, 27 on Selsey West Fields and 22 on Pevensey Levels. Oct. recorded 12 at Selsey West Fields on 10th and 12 on Amberley Wild Brooks. The year ended with 29 at West Wittering, 31 at East Head, 15 at Amberley Wild Brooks and 50 at Pulborough Brooks (present since Oct.).

0518. **JACK SNIBE** (*Lymnocyptes minimus*). **Regular winter visitor and scarce passage migrant.**

The minimum monthly totals were as follows:

	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
No. of sites	8	8	6	2	8	8	9
No. of birds	26	24	12	2	39	28	21

During the first winter period, a minimum of 39 birds was recorded from 14 localities. The peak occurred in Jan. with 4 at Ferring Rife on 2nd, 2 at both Pulborough Brooks and Pagham Hbr on 29th and 30th respectively, and 14 at Thorney Deep on 18th, plus singles at 4 other sites. The last one was recorded at Pulborough on 28 Mar.

During the second winter period, a minimum of 59 birds was recorded from 16 localities. The first returning birds were singles at Icklesham and Pulborough Brooks on 3 and 15 Sept. respectively. In Oct. the bulk of the records came from 3 sites: Rye Hbr, Thorney Deep, and another site in East Sussex, with peaks of 8, 10 and 13 respectively. In Nov. 6 were at Icklesham on 11th; 10 were at Thorney Deep on 6 Dec.

At least 98 different birds were recorded, the highest number ever recorded in the county.

0519. SNIPE (*Gallinago gallinago*). Regular winter visitor, regular passage migrant, breeds irregularly.

During Jan - Mar., peak co-ordinated counts on Pevensey Levels were 360 on 17 Jan. and 263 on 14 Feb. while on the latter date Pulborough counts peaked at 268. Notable numbers late in this period were 61 at Lewes Pells on 16 Mar. and 56 at Henfield on 25 Mar.

The first drumming individual was recorded at Pulborough on 14 Mar. and 33 were drumming there on 1 May. Indications of breeding were also noted at Coombe Haven (2 pairs), Amberley (4 drumming), Coldwaltham Brooks (1 drumming) and Pevensey Bridge Level (at least 3 pairs). Birds were also recorded from Icklesham during the breeding season.

Numbers were generally low during early autumn, the most being 24 at Pevensey Bridge Level on 30 Aug. By late Sept., 38 were present at Rye Hbr Wader Pool increasing to 47 in early Oct. when there were at least 30 at Icklesham. Records were widespread for Oct - Dec. but of note were one over Hollingdean on 7 Nov., 61 at Pett Pools on 14 Nov., 100 at Amberley Wild Brooks on 24 Nov., one in a garden at Princedon on 25 Nov. following cold weather, 120 at Henfield on 11 Dec. and 219 flushed by incoming high tide along the R. Adur on 30 Dec. Up to 350 were present at Pulborough in Dec.

0529. WOODCOCK (*Scolopax rusticola*). Regular breeding resident and winter visitor; scarce passage migrant.

As usual, few birds were recorded in the early months, with 8 in Jan., 3 in Feb. and 4 in Mar. Only c.50 roding males were noted during the breeding season indicating a further decline in numbers.

Late year totals amounted to 2 in Oct., 12 in Nov. and 6 in Dec. On 17 Nov. one hit a window at Patcham and unfortunately died.

0532. BLACK-TAILED GODWIT (*Limosa limosa*). Regular winter visitor, regular passage migrant and scarce summer visitor.

The estuary counts were as follows:

Country totals	1993					1994				
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	457	176	150	222	263	140	515	830	824	314
Pagham Hbr	457	176	148	217	254	108	480	664	358	239
					8	32	35	166	466	75

Spring counts included 170 on 6 Apr. in Fishbourne Channel and 240 on 21st at Pagham Hbr. Summering flocks were relatively small with 41 on 6 June at Apuldrum Manor Farm South and 37 on 29 June at Ferry Pool, Sidlesham. A build-up in July resulted in 99 at Sidlesham on 7th and 169 on 22nd at Thorney Deep, increasing to 400 on 21 Aug. and 615 on 16 Sept. Inland records included one at Pulborough

Brooks on 18 Mar., 5 at East Grimstead on 7 May, one at Portfield GP, Chichester on 11 July, one at Arlington Res. on 7-8 Sept. and one at Pulborough Brooks on 15 Dec.

0534. BAR-TAILED GODWIT (*L. lapponica*). Regular winter visitor, regular spring passage migrant and scarce summer visitor.

The estuary counts were as follows:

Country totals	1993					1994				
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	750	940	474	651	985	774	1433	833	698	52
Pagham Hbr	749	933	474	634	945	774	1431	832	698	52
		4		17	40			1		

The absolute minimum spring passage total was 6762 birds. Monthly totals at the main seawatching localities were as follows (figures almost certainly involve duplication):

	Apr.	May
Selsey	328	1071
Worthing	1027	4766
Seaford	1313	2396

Peak movement came on 3 May with 623 at Selsey Bill, 854 at Worthing and 622 at Seaford, although numbers were almost as high again on 10th. Flocks in June were small with 30 at North Stakes Island, Chichester Hbr on 4th, 12 at Pagham Hbr on 20th and only 6 at Pilsey Sands on 23rd. Numbers increased at Pilsey to 276 on 13 Aug. and peaked at 800 on 16 Sept. The only inland records were one at Greatham Bridge on 25 Apr., 2 at Arlington Res. on 30th and 8 NE over Round Hill, Steyning on 10 May.

0538. WHIMBREL (*Numerius phaeopus*). Regular passage migrant and scarce/rare winter visitor.

In Jan. there was a single bird reported at Pagham Hbr on 14th. A further 5 were reported in Feb. with a maximum of 3 on 13 Feb. at Upper Chichester Channel. The first migrants were 10 at Pagham Hbr on 27 Mar. Spring easterly passage totals for the main seawatching localities were as follows:

	April	May	Total
Selsey	139	286	425
Worthing	159	1110	1269
Seaford	446	961	1407

The peak movements occurred in early May with 309 E off Worthing on 6 May and 323 E at Seaford the following day.

Overland movements were recorded from 14 localities, and included 80 and 112 at Pevensey Bridge Level on 21 and 25 Apr. respectively, 78 at Pulborough Brooks on 26 Apr., 39 at North Stoke on 2 May and 40 at Offham on 6 May.

Large numbers roosted at Rye Hbr from mid-April to mid-May with counts of 180, 144 and 150 on 22, 24 Apr. and 2 May respectively. In June there were reports from 4 localities with a maximum of 8 on 22nd at Pagham Hbr.

Return passage commenced in July with a single at Rye Hbr on 1st and 8 at Pilsey Island on 5th. The numbers at Pilsey Island increased to 39 on 20 July, then dropped to 14 on 7th and 12 on 21st. Other notable records included 42 at Pagham Hbr on 20 July and 25 there on 10 Sept. An interesting inland record for autumn included a count of 200 at Pulborough Brooks on 10 Aug. Otherwise numbers recorded were small with the last significant count of 48 at Pagham Hbr on 1 Sept.

After this date numbers dropped with only singles being recorded from 19 Sept. to the end of the year. Nov. and Dec. records were received from Chichester and Pagham Hbrs with the last record on 22 Dec. at Pagham Hbr.

0541. **CURLEW (*N. arquata*). Regular winter visitor, regular passage migrant, breeds irregularly.**

The estuary counts were as follows:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	1271	1962	996	2810	2300	1326	2146	2022	2077	832
Chichester Hbr	391	1133	384	1867	1370	568	994	1338	1121	573
Pagham Hbr	116	301	316	909	788	282	413	660	648	259
Pett Level	762	258	262	31	121	281	647	-	296	-
Rye Hbr	2	260	34	3	21	195	92	-	1	-

Spring totals for the main seawatching sites were as follows:

	No. of hrs watched	Feb.	Mar.	Apr.	May	Total
Worthing	306.5	2	36	13	7	58 (50E,8W)
Seaford	559	12	131	58	8	209 (191E,18W)
Glyne Gap	244.5	5	30	39	1	75 (73E,2W)

The year started with 400 at Thorney Island on 3 Jan. and 550 at Pett Level on 31 Jan. In Feb. there were 300 at Rye LNR. Numbers then decreased rapidly until birds started to return. The first at Pilsley Island were on 5 June when 36 were present. Counts at Stakes Island showed 105 on 19 June increasing to 749 on 7 July and reaching a maximum of 939 on 18 Aug. Still in Chichester Hbr, 667 were recorded at West Chidham on 19 Aug. Later in the year there were 781 at Pett Level on 15 Nov. and 457 roosting at Rye SSSI on 17 Dec. Inland there were 7 at Steyning on 8 Jan., 26 at Barnham on 1 Feb., a maximum for the year of 32 at Elms Farm, Icklesham on 7 Mar., 30 at North Stoke on 24 Apr., 4 W at Bewl Water on 1 May, 9 SW at Weir Wood Res. on 14 July and 50 flying high from inland out to sea at Exceat Bridge, Cuckmere on 21 Nov. There were also reports of small numbers at a further six sites. Again there were no records of breeding.

0545. **SPOTTED REDSHANK (*Tringa erythropus*). Regular passage migrant and scarce winter visitor.**

The approximate monthly totals were as follows:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
County totals	6	5	7	6	8	2	11	20	8	5	5	4
Chichester Hbr	5	5	6	4	-	-	8	3	2	2	4	4
Pagham Hbr	1	-	1	2	1	2	3	4	1	1	1	-
Pett Level	-	-	-	-	-	-	-	-	-	-	-	-
Rye Hbr	-	-	-	1	-	-	1	3	-	-	-	-

During the first winter period up to 5 were recorded at Thorney Deeps, with singles at Fishbourne and Pagham Hbr on 14 and 28 Mar. respectively. In Apr. 2 were at Sidlesham Ferry from 15th to 26th, and 4 at Chichester Hbr on 21st. During May 5 were observed at Pevensey Middle Bridge on 9th, and one E at Worthing Beach on 11th; the last was at Pagham Hbr on 13th.

A single at Sidlesham Ferry on 26 June was the first returning bird. The largest flock was of 8 at Thorney Deeps on 17 July. The peak occurred in Aug. when 20 birds were recorded in the county, the highest since Sept. 1987 when 23 were recorded.

In Nov-Dec. all the records were from the western harbours as usual.

0546. **REDSHANK (*T. totanus*). Regular winter visitor, regular passage migrant, regular breeding summer visitor.**

The estuary counts were as follows:

	1993			1994						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
County totals	1502	1369	1024	1850	2009	2022	1852	1747	1955	1473
Chichester Hbr	1059	897	601	1151	1342	1421	1406	1102	1181	1008
Pagham Hbr	225	214	130	536	432	353	357	286	533	245
Adur	100	145	149	77	100	119	nc	136	132	105
Rye Hbr	53	64	92	63	82	76	46	124	73	107

The large concentrations reported were 400 at Fishbourne Channel on 29 Jan., at Thorney Deeps 841 on 4 July, 1548 on 20 July, 1297 on 18 Aug., and 110 at Lower Ouse Valley on 3 Nov.

Breeding records were received of 79 pairs from just 10 sites; 2 pairs at Chichester GP, one pair at Cobnor Cottage, 2 pairs at Icklesham, one pair at North Stakes, 15 pairs at Pevensey Levels, 4 pairs at Pilsley Island, 36 pairs at Pulborough Brooks, 14 pairs at Rye Hbr SSSI, 2 pairs at Selsey West Fields and 2 pairs at Thorney Island.

A leucistic bird was noted at sites around Shoreham on 3-8 Jan., 23 Feb., 14 Nov. and 30 Dec. This is probably the same creamy individual noted there annually since 1985.

0547. **MARSH SANDPIPER (*T. stagnatilis*). Very rare vagrant.**

1992: One seen at Rye Hbr on 4 July (DA, AP, MT) has been accepted by *British Birds* and was the individual seen at Icklesham on that date (SxBR 45:42). It was the 8th to be seen in the county.

0548. **GREENSHANK (*T. nebularia*). Regular passage migrant and scarce winter visitor.**

The approximate minimum monthly totals were as follows:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
County totals	5	4	6	35	68	9	140	199	196	54	9	6
Chichester Hbr	5	4	6	11	32	2	112	121	116	42	6	5
Pagham Hbr	-	-	-	1	1	2	10	21	40	4	2	1
Rye Hbr	-	-	-	4	3	4	2	5	4	3	-	-

In addition to the above, 65 were recorded flying E at Worthing Beach between 28 Apr. and 11 May, with a peak of 25 on 5 May. Spring passage was fairly heavy, particularly in May, with 28 at Chichester Hbr on 10th and 11 at Coldwaltham Brooks on 8th. The last was at Thorney Deeps on 8 June.

First returning birds were observed at both Pevensey Levels and Thorney Deeps on 20th, and at Pagham Hbr on 23 June. Passage numbers built up rapidly in July. Counts at Thorney Deeps included 32 on 3rd and 112 on 22nd, increasing to 121 on 16 Aug., 116 on 1 Sept., falling to 88 on 14th with 42 still there on 8 Oct. Other notable records were 21 at Pagham Hbr and 19 at Pett Level on 14 Aug., with 40 at the former site on 26 Sept. In Nov-Dec. all the records were from the western harbours.

0553. **GREEN SANDPIPER (*T. ochropus*). Regular passage migrant and scarce winter visitor.**

The approximate minimum monthly numbers were as follows:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
County totals	14	13	8	17	6	16	40	95	29	13	15	12

During Jan-Mar. birds were quite widespread in ones and twos, with the only significant numbers being 5 in co-ordinated counts on Pevensy Levels on 17 Jan. and 14 Feb.

Spring passage numbers were typically on the low side. Three recorded at Coldwaltham Brooks on 24 June were possibly the first returning birds. Five were present at Sidlesham Ferry Pool on 29 June. Records of 8 birds were received from Glynde Levels on 4 July and at Chichester GP on 20 July. Numbers in Aug. were considerably higher than in 1992 with 16 birds at Rickney, near Pevensy on 2nd, 20 at Pulborough Brooks on 14th and 28 at Pevensy Middle Bridge on 17th. In Aug. reports were received of birds at 21 sites mostly within 10 miles of the coast.

From Sept. to the end of the year the largest counts were 5 at Darwell Res. and Pevensy Middle Level on 4 and 14 Sept. respectively, and at West Mill Farm on the Adur Levels on 5 Nov.

0554. WOOD SANDPIPER (*T. glareola*). Regular autumn passage migrant and scarce spring passage migrant.

The minimum monthly totals were as follows:

May	June	July	Aug.	Sept.
5	9	5	12	3

First recorded on 3 May at Birdham Pool, followed by singles at Apuldram Manor Farm, Pulborough Brooks, Pevensy Bridge Levels and up to 2 at Ferry Pool, Sidlesham. Reports for June were of singles at Watch Cottage Pools, Rye Hbr SSSI and Thorney Deepes on 6th and 8th respectively, 2 in the Cuckmere Lower Valley departing N on 4th, a maximum of 2 at Pulborough Brooks during the month and 3 at Sidlesham Ferry on 24th. A maximum of 4 birds were at Pulborough Brooks late in July and a single was present on Glynde Level on 25th.

A maximum of 6 birds were recorded at Sidlesham Ferry on 8 Aug. and a minimum of 3 were present on Pevensy Levels throughout the month. Three birds seen at Pugham Hbr on 9 Aug. may have been some of those at Sidlesham Ferry the previous day. Singles were at Pett Level Pools on 11 Aug., and from 29 Aug-11 Sept., Arlington Res. on 13-14 Aug., and at Pulborough Brooks during Aug. Final records were of 2 at Sidlesham Ferry on 22 Sept. and one calling and towering high over Selsey West Fields two days later.

0556. COMMON SANDPIPER (*Actitis hypoleucos*). Regular passage migrant and scarce/rare winter visitor.

The approximate minimum monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	4	12	51	60	5	104	109	46	7	1	1

Wintering birds in Jan-Mar. including singles at Cuckmere and Offham, Arun Valley. There were 2 at both Thorney Deepes and Glyne Gap, whilst the single at Pulborough Brooks throughout Jan-Feb. increased to 5 on 18 Mar. - the additional 4 presumably early spring migrants. The earliest spring migrant might possibly be one at Southwick Beach on 12 Mar. with singles at Warnham MP on 24th and Bewl Water on 29th. These were followed by a string of ones and twos almost daily throughout Apr. with 6 in Fishbourne Channel, Chichester on 19th and 5 in the Lower Arun Valley near Ford on 21st. Passage continued for the first half of May, mainly in small numbers with peaks of 9 at Southease on the R. Ouse on 8th and 6 at Cuckmere on 9th.

Sidlesham Ferry saw the first returning bird on 26 June, increasing to 5 on 29th and 9 on 7 July. Build-up was slow in July elsewhere until 23rd with 13 at Thorney Deepes and 10 at Weir Wood Res. By 24th there were 7 at Arlington Res. and 12 at Thorney Island. The largest count was 25 at Arlington Res. on 25th. August counts were mostly low, but Thorney Deepes held 10 on 3rd, Pevensy Bridge Levels 14 and Arlington Res. 21, both on 14th. At the end of the year, there were singles at Cuckmere on 6 Nov. and Thorney Deepes up to 26 Dec.

0561. TURNSTONE (*Arenaria interpres*). Regular winter visitor and regular passage migrant.

The estuary counts were as follows:

County totals	1993					1994				
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	1056	562	704	1227	1134	1084	909	477	658	656
Pugham Hbr	108	185	127	265	215	263	143	92	72	289
Glyne Gap	578	187	249	712	714	512	446	156	489	118
Pett Level	227	156	144	185	107	180	227	197	68	200
	89	12	141	43	83	102	64	6	8	-

Easterly spring passage totals for the main seawatching locations were as follows:

	Mar.	Apr.	May	Total
Selsey Bill	16	12	167	195
Worthing	-	11	317	328
Seaford	-	39	201	240

120 were recorded feeding on lawns at Sutton Place, Bexhill on 12 Jan. Rye Hbr shore had 48 roosting on 25 Apr. whilst Pilsey had 30 on 28th. Glyne Gap beach recorded 210 on 4 May, with Selsey Bill 167, Worthing Beach 317 and Splash Point, Seaford 201 for the month. Pilsey Island recorded 239 during July and 637 during Aug.

0565. GREY PHALAROPE (*Phalaropus fulicarius*). Regular autumn passage migrant and rare winter visitor.

One offshore at Church Norton on 2 Oct. (AF) was the only record.

0566. POMARINE SKUA (*Stercorarius pomarinus*). Regular spring passage migrant but numbers vary considerably from year to year. Scarce in autumn and a vagrant in winter.

The first recorded were 3 E off Seaford on 24 Apr. Thereafter, a further 4 were reported flying E in Apr. and at least 229 in May. The total of 236 for the whole spring exceeds that of other years except for 1989, when at least 390 were recorded. Reported daily in the periods 2-5 May and 7-15 May and on 17 days during the month, the largest movements were 32 on 5th, 30 on 8th and 29 on both 9th and 10th. As usual, most were recorded at Seaford where the total for the spring was 169 and the largest flock was 11 on 5 May. The last recorded were 2 off Brighton Marina on 24 May.

The only acceptable record for the autumn was of a dark phase sub-adult W off Selsey Bill on 5 Aug. (TJE) although a skua at Weir Wood Res. on 4 Oct. was considered to be this species.

0567. ARCTIC SKUA (*S. parasiticus*). Regular spring and autumn passage migrant. Occasional in winter and summer.

Singles flew E off Selsey Bill on 3 and 9 Jan.

Easterly spring passage was first recorded on 28 Mar. when there were 5 off Seaford and 3 off Beachy Head. The totals at the main seawatching localities (number of hours watched in brackets) were as follows:

	Mar.	Apr.	May	June	Total
Selsey Bill	-	124 (173)	61 (220.5)	5 (10.5)	190
Worthing	-	39 (68.3)	64 (198.5)	-	103
Seaford	7 (151)	160 (161)	123 (206)	-	290

A simple analysis of the available data indicates a minimum of 344, of which 7 were in Mar., 183 in Apr., 149 in May and 5 in June. This is the highest spring total since 398 were recorded in 1986. Passage was noted on 50 days with, once again, a marked peak in late Apr. including, at Seaford, 46 on 23 Apr. and 66 the following day. The latter is the highest day total for the county in spring, exceeding the 55 recorded at Birling Gap on 1 May 1972. The largest May movements were 20 at Seaford on 3rd and 21 on 14th. In June, singles were recorded at Selsey Bill on 1st and at Rye Hbr on 1st and 5th, while on 17th there were 4 E at the former site.

There were no further records until 1 Aug. when there were 2 off Selsey Bill. Thereafter, passage was very light except for 15 off Newhaven in 3 hours on 28 Aug., a day of heavy term passage. The only records for Oct. were of inland birds: an adult at Weir Wood Res. on 11 Oct. (BMM) and a juvenile S over Pulborough Brooks on 15 Nov. (RSPB).

0568. LONG-TAILED SKUA (*S. longicaudus*). Rare spring and autumn passage migrant.

Two records: an adult E with an Arctic Skua at Splash Point, Seaford on 12 May (RPM,AMW) and a juvenile resting in fields at Church Norton on 12 Sept. (CRJ,MJ,OL *et al.*). These are the first to be recorded since 1991 when there was also an adult off Seaford on 12 May and an autumn juvenile. The county total moves to 24, although 2 records from previous years remain under consideration.

0569. GREAT SKUA (*S. skua*). Regular spring and autumn passage migrant. Occasional in winter and summer.

The approximate monthly totals again show the main spring movement occurring in Apr. and a small return passage in autumn:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	-	-	13	8	-	-	4	14	3	-	-

One at Thorney Deepes on 10 Jan. was probably that seen off Selsey Bill on 11th and 20th, and at Pagham Hbr. also on 20th. At Seaford, there were 2 on 15th (one of which was seen off Newhaven on 17th) and one on 16th. A single off Rye Hbr was possibly different to any of those above.

A total of 21 was recorded on easterly spring passage between 8 Apr. and 22 May, a figure well down on the 47 recorded in the spring of 1992. The largest movements were 4 off Seaford on 25 Apr. and 3 off Selsey Bill on 14 May.

A poor autumn followed a poor spring. Following 2 off Hope Gap on 6 Aug., the only other records for that month were of one W off Worthing on 9th and one in Rye Bay from 26th to 1 Sept. A total of 5 was recorded 6 miles S of Brighton Marina on 2 Sept. but only single birds were recorded thereafter, except for 3 W off Church Norton on 12 Sept. In Oct. there were singles at Rye Hbr on 1st (possibly that found dead there on 16th) and E off Beachy Head on 6th.

0575. MEDITERRANEAN GULL (*Larus melanocephalus*). Recorded throughout the year mainly as a passage migrant; a scarce summer visitor and rare breeding species. The numbers recorded are increasing steadily.

Although the records suggested there were fewer individuals than 1992 the year was nevertheless a good one. The year started well with several long staying wintering individuals being regularly recorded. However, the coastal spring passage,

summer and autumn numbers were lower than 1992. The growing number of observations, occasionally with inadequate notes of age, renders a precise total difficult to calculate but the following table shows the approximate numbers of each age seen monthly; the total including unaged, probably different, individuals. The pattern of a spring peak is again clearly demonstrated, with immature birds arriving later than adults.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Adults	7	8	16	13	2	4	-	5	3	4	2	2
2nd year	4	1	3	6	3	1	-	1	1	1	1	2
1st year	1	-	-	6	10	-	-	-	-	2	1	-
TOTAL	13	12	21	27	15	5	1	6	5	9	4	6

As usual most of the records involve one or 2 birds, however there were 5 adults at Chichester Hbr on 11 Mar. and at Rye Hbr LNR on 3 Apr. Elsewhere there were 4 immatures at Hoove Level, Pevensey on 10 May and 3 birds seen at Glyne Gap, Bexhill on 14 Feb. and at Splash Point, Seaford on 30 Mar.

There was a notable increase in the number of sightings inland. At Weir Wood Res. singles were recorded on 12 Jan. and 25 Jan. and 2 immatures roosted on 27 Dec., singles were at Arlington Res. on 20 Mar. and 28 Nov., and a second-year was at Bewl Water on 15 Aug. Finally there were records of an adult near Chantconbury Ring on 2 Jan. and an adult and first-year at Steyning on 8 Oct.

An immature, first seen at Shoreham Hbr in late 1992 and wearing a white ring numbered 24H, was ringed as a nestling during June 1992 at a colony in the Netherlands. This bird remained throughout Jan. and was again recorded in the same location from Oct. until Dec.

0578. LITTLE GULL (*L. minutus*). A passage migrant, most numerous in the spring; a scarce summer and winter visitor.

Another good year was recorded. The total of 514 individuals is an increase on the 1992 total and represents the sixth highest annual total recorded. The following table of the minimum numbers seen in each month reveals a similar pattern to previous years with a marked spring peak and a smaller but obvious late autumn passage.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
8	1	18	250	107	2	2	9	38	57	7	15

Apart from 2 W at Worthing on 6 Jan. the winter records were of singles from various coastal sites until 14 Feb. Spring passage started on 8 Mar. when one was seen in Chichester Hbr followed by one at Rye Hbr LNR and 2 E at Seaford on 12 Mar. and an adult at Pulborough Brooks on 13 Mar. On 14 Mar. a further 5 E at Seaford and singles at Chichester Hbr and Chichester GP, the last staying until 28 Mar.

The spring passage was most pronounced in Apr. and apart from one at Pulborough Brooks all were noted from coastal sites. The monthly totals from the regular seawatching localities (number of hours watched in brackets) were as follows:

	Mar.	Apr.	May
Selsey Bill	- (69)	102 (173)	2 (220)
Worthing	- (34)	1 (68)	82 (198)
Seaford	13 (151)	208 (161)	48 (206)

The peak day was 24 Apr. when 70 E at Beachy Head, 46 E at Seaford and 68 E at Selsey Bill. Other notable counts from Seaford were 53 E on 9 Apr., 54 E on 20 Apr., 35 E on 23 Apr. and 34 E on 10 May. The peak counts at Worthing were 36 E on 10 May and 21 E on 13 May.

During June and early July an immature was recorded at Rye Hbr LNR and one was recorded in Chichester Hbr on 27 June. As usual autumn passage was protracted with records between 28 July - 18 Nov. Like the spring most were recorded from the coast with peaks of 16 off Church Norton on 12 Sept., 13 W at Worthing on 5 Oct. and 15 W at Langney Point on 9 Oct. At Arlington Res. 2 were seen on 14 Sept. and singles were recorded on 9 Sept., 11 Oct. and 14 Oct. Singles were noted at Barcombe

Res. on 10 Sept. and Darwell Res. on 9 Oct. There were no records from either Bewl Water or Weir Wood Res. At the end of the year there were 2 at Selsey Bill on 28 Dec. and 13 at Splash Point, Seaford on 29 Dec.

0582. BLACK-HEADED GULL (*L. ridibundus*). Increasingly successful breeding species, common winter visitor and passage migrant.

The winter gull roost count on 23 Jan. produced a total of 84906 of which 45496 were from coastal sites in West Sussex, 9374 from coastal East Sussex and 30036 from reservoir roosts. The 2 largest counts were 15661 in Pagham Hbr and 24000 at Bewl Water (see pages 123-126). Other counts from Bewl Water were 5000 on 14 Jan. and 20000 leaving the roost on 17 Jan. Elsewhere there were 4500 at Weir Wood Res. on 9 Jan., 4000 at Amberley Wild Brooks on 16 Jan. and 1800 at Preston Park, Brighton on 24 Feb.

A small eastward coastal movement was recorded at Worthing where the total for Apr. and May was 4171 with a peak of 1031 E in 15 hours on 6 May. The first count of the Stakes Island breeding colony on 4 May showed 1178 nests with 3095 eggs although by 7 June there were only 641 nests, 1349 eggs and 83 chicks. At Rye Hbr LNR about 120 pairs nested at the Ternery Pool and raised more than 200 young whilst at Camber Pit there were 30 pairs but no young raised.

The only notable counts at the end of the year were 1000 at both Warnham MP and Warnham Brickworks landfill site in Nov., 2000 at Arlington Res. on 4 Dec., 3500 at Weir Wood Res. on 28 Dec. and 1000 leaving the Bewl Water roost on 30 Dec. An albino individual with black wing tips was once again seen at Worthing on several days in late autumn.

0590. COMMON GULL (*L. canus*). Recorded all year although mostly a common winter visitor and passage migrant.

1987: An adult ringed at Sumping refuse tip near Worthing on 21 Jan. with a wing length of 398 mm has been accepted by the British Ornithologists' Union as belonging to the race *L.c. heinei*.

1993: The coordinated gull winter roost count on 23 Jan. produced a total of 13479 with 6915 from coastal sites in West Sussex, 1720 from coastal East Sussex and 4840 from reservoir roosts (see pages 123-126). Other notable winter records were all of 1500 birds at Pilsey Sands on 29 Jan., at Cissbury Ring on 6 Feb. and Ashcombe Bottom, near Lewes on 20 Feb.

Spring movements were small with the peak of 325 E at Worthing in 3 hours on 12 Apr. The timing of the return passage is best demonstrated by a series of counts from Chichester Hbr: one on 8 June, 4 on 15 June, 34 on 28 June, 52 on 3 July, 222 on 24 July and 650 on 13 Aug. The only significant counts at the end of the year were 60 at Warnham MP on 17 Nov. and 370 at Weir Wood Res. on 28 Dec.

0591. LESSER BLACK-BACKED GULL (*L. fuscus*). A few breeding pairs and some non-breeding birds summer, most numerous as a coastal passage migrant and a winter visitor to inland sites.

The coordinated gull roost count on 23 Jan. produced a total of 749, all except 14 in West Sussex and most in Pagham Hbr where 715 were counted (see pages 123-126). Apart from the extraordinary count at Pagham Hbr the other winter high counts were 120 at Weir Wood Res. on 9 Jan. and 76 at Darwell Res. on 17 Jan.

A small spring coastal movement was noted with totals of 22 E in Apr. and 51 E in May at Worthing and 17 E and 49 E at Seaford Head on 15 and 16 May respectively. At least one pair bred on roof tops in Worthing and a pair was present during the breeding season at Rye.

The first notable autumn record was 52 (37 adults) at New Salts Farm, Lancing on 7 July. Thereafter significant counts were 130 at Pagham Hbr on 18 Aug., 80 at Nook Meadows, Rye Hbr SSSI on 31 Aug. and 75 on the beach at Worthing on 10 Sept. With the exception of 52 by the R. Adur at Shoreham on 16 Nov. all the large

numbers in the late autumn and winter were from inland sites. At Baldhorns Park, Ruser there were 80 on 26 Sept. and at nearby Warnham MP the numbers increased to a maximum of 80 on 17 Nov. and 25 Dec. The maximum at Pulborough Brooks was 50 in Oct. and finally 30 were recorded at Sutton Down, near Upwaltham on 18 Nov.

0592. HERRING GULL (*L. argentatus*). A common resident and breeding species; a winter visitor and passage migrant.

The winter gull roost count on 23 Jan. produced a total of 12868 with 9097 recorded from West Sussex coastal sites, 3700 from coastal sites in East Sussex and only 71 from reservoir roosts. The highest count of 7978 was at Pagham Hbr (see pages 123-126). Although few roost inland there were 150 at Faygate refuse tip on 28 Apr.

At Rye Hbr LNR Ternery Pool 5 pairs nested, at Rye Hbr Long Pit 10 - 15 pairs nested and roof top breeding was reported from Rye, St Leonards-on-Sea, Brighton, Hove and Worthing.

There were no large counts later in the year; the most noteworthy were 120 at Preston Park, Brighton on 15 Sept., 189 at Elms Farm, Icklesham on 13 Oct. and up to 100 at Pulborough Brooks during Oct.

L.a. argentatus: - Birds showing the characteristics of this race were as follows: **1990:** A third-winter at Weir Wood Res. on 3 Feb.(ASC).

1993: Single adults were noted at Shoreham Hbr on 2 Jan. (PJ,TJW), at Pett Pools on 2 Feb. (BDJ,PJ,TJT), at Pagham Hbr on 21 Nov. (BDJ,PJ), at Shoreham Hbr also on 21 Nov. (RJF) and at Brooklands, Worthing on 24 Dec. (PMB). Finally 2 adults were at Worthing on 27 Dec. (PMB).

Records of yellow legged gulls, comprising mainly of the race *L.a. michahellis* and now considered by many as a separate species *L. cachinnans*, showed a marked increase. The following table of monthly minimum totals shows the usual pattern of occurrence in summer and early autumn but more than usual numbers in late autumn and winter.

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3	-	2	-	3	161	288	19	122	64	1

Most were seen in, or near, Pagham Hbr where the peak was 281 on 1 Aug. on 15 Aug. The records which did not conform to the established patterns were of interest and include single adults at Bewl Water on 14 Jan., at Sidlesham Ferry on 2 Feb., Bexhill on 7 Feb. and the individual which regularly returns to winter in the Cuckmere Valley.

0598. ICELAND GULL (*L. glaucoides*). Scarce/rare spring passage migrant, scarce/rare winter visitor.

A first-winter flew E at Selsey Bill on 17 Jan. (RP, TJW) and was seen about 1 hour later at Shoreham Hbr (PJ). A second-winter at Glyne Gap, Bexhill on 7 Mar. (RBW) was the only other record with adequate supporting notes.

0599. GLAUCOUS GULL (*L. hyperboreus*). Regular though scarce, winter visitor and passage migrant.

A poor year with possibly only 3 birds recorded. The adult, regularly recorded in the Selsey area since 1985, was seen between 1 Jan. and 26 Feb. and after 22 Aug. until 26 Dec. The only other records were first-years at Willingdon on 26 Aug. (CMC-W) and at Climping on 25 Dec. (JHW).

0600. **GREAT BLACK-BACKED GULL (*L. marinus*).** A non-breeding resident and passage migrant.

The coordinated gull roost count on 23 Jan. produced a total of 2414 with 1119 recorded in coastal West Sussex, 1080 from coastal sites in East Sussex and 215 from reservoir roosts of which 200 were at Darwell Res. (see pages 123-126).

The largest winter counts were at Bulverhythe where there were 403 on 16 Jan. and 550 on 17 Dec. and at Pagham Hbr where the highest count was 420 on 13 Nov. Other significant counts were, as usual, all coastal and include 380 at Cuckmere Haven on 1 Jan., 375 at Camber on 23 Jan., 260 at the Sovereign Hbr Marina on 5 Nov., 250 at Shoreham Airport on 28 Nov. and 319 in Chichester Hbr on 25 Nov. This last mentioned site produced the only summer counts with 140 at Pilsey Sands on 19 June and 124 there on 3 July.

0602. **KITTIWAKE (*Rissa tridactyla*).** Increasingly successful breeding species, winter visitor and passage migrant.

During Jan. a notable westward movement was recorded with a total of 131 W at Bexhill and peak counts at Selsey Bill of 205 W in 3 hrs on 9 Jan. and 601 in 5.5 hrs on 13 Jan. Later in the winter and during the spring coastal movements were small as shown in the following table of monthly totals from two regularly watched West Sussex sites (hours watched in brackets).

	Jan.	Feb.	Mar.	Apr.	May.
Selsey Bill	- East 51 (39)	- (9)	2 (69)	19 (173)	65 (221)
	- West 1044	1	-	74	25
Worthing	- East 13 (12)	- (6)	45 (34)	14 (68)	114 (198)
	- West 96	6	6	10	49

The most unusual record for the year and the only inland sighting was 65 at Weir Wood Res. on 25 Jan. Mortlock, 1992 (*Birds of Weir Wood Reservoir, 1954-1989*) puts this record in context as she described the Kittiwake as a rare visitor to this site with only 12 birds recorded between 1966 and 1990.

Regrettably neither the breeding colony at Newhaven nor Seaford were counted. The only noteworthy records from the later part of the year were 150 up to 8 km offshore at Winchelsea Beach on 26 Aug., 137 E in 5 hrs at Brighton Pier on 13 Sept. and 180 E in 2 hrs watching from Brighton Marina on 16 Nov.

0611. **SANDWICH TERN (*Sterna sandvicensis*).** Regular spring and autumn passage migrant. Breeds erratically.

The first recorded were singles off Church Norton, Brighton Marina and Seaford on 10 Mar. Easterly spring passage totals at the main seawatching localities (number of hours watched in brackets) were as follows:

	Mar.	Apr.	May	Total
Selsey Bill	71(69)	2150(173)	1627(221)	3848
Worthing	49(34)	1104(68)	1338(199)	2491
Seaford	181(151)	2602(161)	1084(206)	3867
Bexhill	11(75)	458(65)	414(57)	883

The largest movements were 398 off Seaford on 11 Apr. and 348 there on 23 Apr. At Rye Hbr. where there was no evidence of nesting in 1992, 90 pairs raised at least 120 young.

Westerly autumn passage was typically light, the totals for Aug. and Sept. being just 86 and 72 at Worthing and 72 and 164 at Selsey Bill. The latter figure included 100 on 21 Sept., the largest movement of the whole autumn. The last noted was one in Pagham Hbr on 10 Oct.

Inland, there were singles at Icklesham on 18 July, Arlington Res. on 12 Aug. and Sumping on 13 Aug. with 2 at the former locality on 29 Aug.

0614. **ROSEATE TERN (*S. dougallii*).** Scarce passage migrant and non-breeding summer visitor.

A welcome increase with an absolute minimum of 7 recorded but possibly as many as 15. Records were as follows:

Selsey Bill: One E on 6 May (TJE), one offshore on 7 May (JWD,OM *et al.*), 2 offshore on 11-13 May, that departed E on the latter date (TJE,CRJ,OM *et al.*) and one E on 14 May (JFRP *et al.*).

Pagham Hbr: Singles on 12 May (probably one of the Selsey birds) and 20-21 July (TJE).

Littlehampton West Beach: One E on 10 May (ASC).

Worthing: One E on 11 May (PMB), 2 E on 12 May (JAN) and 2 E on 13 May (PMB), the latter probably the Selsey birds.

Glyne Gap, Bexhill: One E on 13 May (RBW).

Rye Hbr: Singles on 23 May (DJF) and 27 June (DFI, BJY).

Pilsey Island: Singles on 23 July and 2 Aug. (CBC).

0615. **COMMON TERN (*S. hirundo*).** Regular spring and autumn passage migrant; scarce breeding summer visitor.

The first arrivals were at Rye Hbr LNR with one on 29 Mar., then 2 there on 10 Apr., 7 on 11 Apr. and 19 by 16 Apr. Elsewhere, one at Pagham LNR on 11 Apr., one at Brighton Marina on 12 Apr. and one at Pilsey Island on 16 Apr.

Breeding records received were: 60 pairs raised at least 90 young at Rye Hbr LNR with the first hatching on 3 June; at least 18 pairs nested on the rafts at New Lake, Chichester GP and 53 chicks were ringed there; one pair displaying at Bewl Water.

The maximum counts were of 65 at Weir Wood Res. on 14 Aug., 75 at Bewl Water on the same date, 160 at Pilsey Island on 15 Aug., 775 passing W off Newhaven in 3 hours of seawatching on 28 Aug. (EDU) and 250 off Brighton on 8 Sept. By mid-Sept. records became sparse, but the last birds were singles at Selsey Bill 14 and 16 Oct., and then one immature at Rye Hbr LNR on 18 Oct. Birds in first year, '*portlandica*', plumage were noted at Rye Hbr LNR from 26 June until 12 July. See also Common/Arctic Tern.

0616. **ARCTIC TERN (*S. paradisaea*).** Uncertain, but probably a regular spring and autumn passage migrant.

The only spring records were of 29 E off Hove and 6 E off Brighton Marina, both on 6 May.

In autumn, the first recorded were 6 in Pagham Hbr on 18 July and 2 there on 21st. There were no further records until early Sept. when 2 were seen at Pett Level on 3rd, one off Brighton on 7th and 2 there on 8th. A single was recorded at Chichester GP on 10th followed by 3 W off Seaford and one at Arlington Res. on 11th, and singles at Pagham Hbr and Selsey Bill on 12th. A total of 16 was recorded at Brighton Marina on 13th, on which date there were also 4 at Chichester GP (one remaining to 14th). The last reported were 2 at Langney Point on 9 Oct. and one at Pilsey Island on 13 Oct.

Observers are reminded that the identification of Common, Arctic and Roseate Terns is fully discussed in a recent paper, *British Birds* 86 (5): 210-217. See also Common/Arctic Tern.

COMMON/ARCTIC TERN

Seawatching produced many records of uncertain identity with birds passing offshore at distance. In spring the eastward passage began with one at Splash Point, Seaford on 28 Mar., followed by 3 on 30th. Easterly spring passage totals at the main seawatching localities (number of hours watched in brackets) were as follows:

	Mar.	Apr.	May	Total
Selsey Bill	1203 (173)	5698 (221)	6901	
Worthing	718 (68)	7096 (199)	7814	
Seaford	4 (151hrs)	3468 (161)	8561 (206)	12033
Bexhill	367 (65)	1985 (57)	2352	

This was a more normal passage than the very low numbers of 1992. The largest movements were 1259 off Seaford on 23 Apr. and 5358 there between 10-13 May, including 2004 on the latter date. At Worthing, a total of 5235 was recorded in the same four day period.

Autumn passage, by comparison, was typically light with monthly totals for Aug. of 145 W and 47 E at Worthing and 43 W and 229 E at Selsey Bill, and for Sept. of 146 W and 512 E and 80 W and 121 E respectively. The peak movement was 195 E off Worthing on 8 Sept. (but see also Common Tern).

0622. BRIDLED TERN (*S. anaethetus*). Extremely rare vagrant.

An adult at the Ternery Pool, Rye Hbr during the evening of 16 May (CW, NW, BJJ *et al.*) roosted overnight and was seen early on the morning of 17th before flying strongly out to sea. It has been accepted by British Birds and is the first county record. For those who saw it, it was the highlight of the year.

0624. LITTLE TERN (*S. albigrons*). Regular passage migrant and scarce breeding summer visitor.

First recorded on 10 Apr. at Selsey Bill and at Pagharn Hbr the following day. Easterly spring passage totals at the main seawatching localities (number of hours watched in brackets) were as follows:

	Apr.	May	Total
Selsey Bill	77 (173)	390 (220.5)	467
Worthing	50 (68)	438 (195)	488
Seaford	34 (161)	352 (206)	386
Bexhill	2 (65)	311 (56.5)	313

The largest movement was on 10 May when totals included 155 off Worthing, 148 off Seaford and 81 off Bexhill.

In the breeding season there were 35 pairs at Rye Hbr, but only 15 young were raised.

Visible autumn passage was very light but some very large concentrations were recorded on Pilsley Sands including 208 on 23 July, 371 on 24 July and 145 on 4 Aug. The last recorded were singles at Church Norton on 21 Sept. and Pilsley Island on 22 Sept.

There were no inland records.

0627. BLACK TERN (*Chlidonias niger*). Regular spring and autumn passage migrant.

The approximate monthly totals were as follows:

	Apr.	May	June	July	Aug.	Sept.	Oct.
	15	808	12	2	14	35	2

First recorded on 23 Apr. at Selsey Bill and Worthing. Thereafter, spring passage was heavy with totals at the main seawatching localities of 261 at Selsey Bill, 185 at Worthing and 479 at Seaford. The peak movement was on 10 May when totals flying E included 389 off Seaford, 97 off Selsey Bill and 77 off Worthing. Large numbers were also recorded on this date at inland localities comprising 57 at Arlington Res., 23 at Chichester GP and 19 at Weir Wood Res. A further 53 flew E at Selsey Bill on 11 May and 60 at Worthing on 12th, on which date there were also 29 at Rye Hbr. Significant counts on 13th included 30 E off Worthing, 31 at Arlington Res. and 26 at Scotney Court GP. One was in the Lower Cuckmere Valley on 4 June but further singles at Pilsley Island on 22 June, and at Rye Hbr on 26 June and 1 July, and 9 in

Chichester Hbr on 30 June were probably early autumn migrants. Thereafter, passage was very light, the highest count being just 6 at Chichester GP on 13 Sept. The last recorded were singles at Weir Wood Res. on 4 Oct. and off Langney Point on 9 Oct.

0634. GUILLEMOT (*Uria aadge*). Non-breeding summer visitor; winter visitor; passage migrant.

The approximate monthly totals (which include sea passage) were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
49	8	16	21	12	-	1	2	3	-	-	4

These figures include 12 dead birds, 3 of which were oiled, and a further 10 live but oiled individuals, all but one of which were found between Jan. and May. See also Auk sp.

0636. RAZORBILL (*Alca torda*). As Guillemot but apparently less numerous.

The approximate monthly totals (which include sea passage) were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	-	5	7	22	-	-	2	4	6	1	-

These figures include totals of 11 E and 2 W off Worthing in May. There were no reports of dead or oiled birds. See also Auk sp.

0637. LITTLE AUK (*Alle alle*). Very scarce autumn migrant and winter visitor.

1975: One found sick at Rottingdean on 27 Nov. died and is in the Booth Museum (BoMNH 200108).
1979: One found dead at Shoreham Airport on 12 Nov. is in the Booth Museum (BoMNH 201746).
1982: One picked up alive at Eastbourne in Jan. died and is in the Booth Museum (BoMNH 208357) as is one found dead at Brighton on 19 Dec. (BoMNH 203399).
1993: One on the sea off Splash Point, Seaford on 27 Jan. (EDU). One feeding at the base of the west arm of Brighton Marina on 16 Oct. (ADW, PJW *et al.*) appeared to be quite sprightly but was found dead the following day. A corpse picked up at West Wittering on 13 Dec. was in good condition suggesting that the bird had recently died (MEH).

A return to normal after the exceptional numbers in 1989, 1990 and 1991 although none were recorded in 1992.

0654. PUFFIN (*Fratercula arctica*). Scarce/rare spring passage migrant.

1984: One found dead at Hove on 27 Jan. is in the Booth Museum (BoMNH 203767).
1993: There were no records for this year.

AUK SPECIES

Totals at the main seawatching localities were as follows:

Direction of movement	Jan-Feb.		Mar-May		Aug-Oct.		Nov-Dec.	
	E	W	E	W	E	W	E	W
Selsey Bill	52	127	45	16	-	-	-	-
Worthing	11	6	59	22	12	8	25	3
Seaford	85	19	446	-	-	-	175*	-
Bexhill	25	256	16	9	-	-	-	-

* direction not specified

The largest movements recorded were 175 off Seaford on 29 Dec. and 128 E off Newhaven on 15-16 Jan.

0665. **feral ROCK DOVE** (*Columba livia*). **Feral.**

Despite the wide distribution of these birds only a few records were submitted.

A single bird was seen at Darwell Res. on 17 Jan. 40 were seen regularly at Littlehampton Marina from 26 Oct. until the end of the year. 140 were feeding on stubble at Yapton on 15 Oct. and 500 on stubble at Hurstpierpoint on 18 Dec.

0668. **STOCK DOVE** (*C. oenas*). **Regular breeding resident.**

In the early part of the year the largest flocks reported were 80 at Thorney Island on 30 Jan., 49 at roost in Moulsecomb Wild Park on 8 Feb., 55 on rape stubble at Kilnwood, near Faygate on 6 Mar., 120 at Rye Hbr LNR on 23 Mar. and 60 at both Combe Haven and Castle Hill, near Falmer on 26 Apr.

Records of breeding were widespread but only in small numbers. There were 3 pairs at Grantley Farm, Maynards Green and 2 nestboxes were occupied in Horsted Keynes Station on the Bluebell Railway line.

The latter part of the year saw larger concentrations with 400 at Ferry Field, Sidlesham on 3 Nov. and 200 at Glynde Reach on 15 Dec. Elms Farm, Icklesham supported a population all year which reached a peak of 30 on 29 Dec.

0670. **WOODPIGEON** (*C. palumbus*). **Regular breeding resident, regular passage migrant and regular winter visitor.**

250 were seen flying SW at Somping near Worthing on 3 Jan. The biggest counts in the early months were 1000 at Littlehampton GC on 9 Jan. and a conservative estimate of 1200 at Icklesham on 7 Mar.

CBC counts of probable breeding birds in May recorded 2 pairs in Westdean Wood (12.1 ha), 22 pairs in yew and ash woodland at Kingley Vale (60 ha) and 11 on farmland at Maynard's Green (45.3 ha). A breeding survey at Hollingbury Camp reported 40 pairs or singing males.

In Sept. flocks in excess of 400 were at Icklesham and on 15 Oct. 1000 were at Belle Tout, Beachy Head. Also at Beachy Head on 19 Oct. about 300 birds flew in from the sea in a NE direction. Large flocks in Dec. included 1000 at Sidlesham Ferry Field, 1875 flying E at Fore Hill, Southeast and 1500 at Ashcombe Bottom, Lewes. An albino was at Kingley Vale on 15 Dec.

0684. **COLLARED DOVE** (*Streptopelia decaocto*). **Regular breeding resident.**

The 145 birds on the Knepp Estate on 8 Jan. was the largest count in the early period. Early song was heard at Darwell Res. on 17 Jan.

The breeding survey at Hollingbury Camp noted 16 birds in June.

The 105 at a grain store on Stakers Farm, Yapton on 9 Oct. had increased to 191 by 3 Nov. The flock at Knepp Estate on 5 Nov. was 185 and the 100 birds at Harbour Farm, Rye SSSI included one white individual.

0687. **TURTLE DOVE** (*S. turtur*). **Regular breeding summer visitor and regular passage migrant.**

The first record was 10 Apr. at Seaford Head. Spring passage was evident later in the month but was light. Three were heard singing and giving mating calls at Rye Hbr LNR on 22 Apr. while 11 were counted at Seaford Head on 24 Apr. The first arrival at Pulborough Brooks did not take place until 12 May and 5 migrants passed over Glyne Gap, Bexhill on 15 May.

Approximately 25 breeding pairs were reported with 16 additional singing males from nearly 40 sites throughout the county.

21 birds were seen at Seaford Head on 28 Aug. Six on 12 Sept. was the next highest, again at Seaford Head. The last record was a single at Icklesham on 14 Oct.

0712. **Cat.C. RING-NECKED PARAKEET** (*Pittaculula krameri*). **Introduced, regular breeding resident.**

Again, no confirmed reports of breeding. The maximum count was of 7 at Hollingbury Camp on 1 Feb. and 1 Mar. Elsewhere, singles were seen at Selsey on 6 Feb., West Wittering on 14 Mar., Laughton on 11 Apr., flying past Worthing Beach on 6 May and at Hove Park on 7 May, 4 July and 5 Nov. One was heard at Woodingdean on 7 Nov. and one at Church Norton on 22 Nov. One found near Buckingham Park, Shoreham on 6 Feb. later died.

0724. **CUCKOO** (*Cuculus canorus*). **Regular breeding summer visitor, regular passage migrant.**

A very early bird reached Rye Hbr on 21 Mar. Singles were at Ashdown Forest on 2 Apr., Battle on 6th, Lewes 8th, Clipping 9th, and birds were reported regularly from 12th.

Widespread during the breeding season. The last birds were very late at Selsey Bill on 14 Oct. and Widewater, Lancing on 17 Oct.

0735. **BARN OWL** (*Tyto alba*). **Regular breeding resident.**

94 records were received from 44 localities. The number of probable breeding pairs has increased significantly to 18, of which 6 were confirmed as breeding and at least 16 young were raised, a welcome improvement compared to 1992. Also, juveniles were seen at 2 other sites. Only one road casualty, at Dial Post on 24 Oct.

0757. **LITTLE OWL** (*Athene noctua*). **Regular breeding resident.**

A total of 106 records from 59 localities, a fall from the previous two year's totals. 16 pairs were reported of which at least 10 bred successfully, at least 6 young were raised. No casualties were reported but 3 birds were released at Thorney Island.

0761. **TAWNY OWL** (*Strix aluco*). **Regular breeding resident.**

A minimum of 88 birds were recorded from 47 localities, a decrease in numbers since 1992. Of 25 probable pairs reported, 4 were known to have hatched young, but 2 were taken at one site. Only one casualty, a bird hit by a car at Washington.

0767. **LONG-EARED OWL** (*Asio otis*). **Regular winter visitor and regular passage migrant, breeds most years.**

The approximate monthly totals were as follows:

No. of sites	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of birds	1	3	1	2	1	1	1	1	1	-	5	1
	1	7	1	2	5	1	1	1	1	-	6	1

The largest roost was only 5 birds, in the early part of the year. One bird was found dead on the Brighton bypass in Jan. Breeding was proven at one site in Sussex, with 3 young birds present. Again, all birdwatchers are reminded of the need to avoid disturbing this scarce species.

0768. **SHORT-EARED OWL** (*A. flammeus*). **Regular winter visitor and regular passage migrant. Has bred.**

The large wintering totals from the end of 1992 continued into the early months of 1993. The monthly maxima were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
26	28	25	18	6	-	1	1	1	7	12	10

The majority of records can be grouped and summarised as follows:

Chichester Hbr. All records relate to Thorney Island. Monthly maxima were 6 on 2 Jan., 5 on 2 Feb., 8 on 8 Mar. and 7 on 2 Apr. Unusually, one was recorded on 23 July. The first autumn record was of a single on 17 Sept. and 3 were recorded on 28

Oct. Six roosted on 6 Dec.

Selsey Peninsula. Lower numbers recorded this year with only a single bird at Selsey in the early months, during Jan. and Apr. An unusual record was of one at Church Norton on 16 and 17 Aug. Autumn records at Selsey consisted of singles during Sept., Oct. and Nov. At Pagham Hbr. singles were seen in Oct. and Nov. with a maximum of 2 on 2 Nov.

Arun Valley. In the early part of the year, singles were seen at Pulborough Brooks and Coldwaltham in Jan. but remained in the latter area until May, with 2 birds often recorded. A single bird, presumably a migrant, was seen at Climping on 14 Apr. Autumn records were sparse with one at Climping on 24 Sept., one at Coldwaltham on 16 Oct. and the last bird was at Littlehampton on 27 Nov.

Adur Valley. Breeding Brooks held birds during the first two months of the year, with a maximum of 3 on 14 Feb.

Sheepcote Valley. A single was recorded from Jan. to Mar.

Ouse Valley. Four birds were recorded in the early part of the year, one at Newhaven during Jan., 2 at Saltdean on 14 Jan. and one at Piddinghoe on 8 Mar. No autumn records were received.

Cuckmere Haven and Beachy Head. Four records from Seaford included single birds on 3 Jan. and 25 Apr. and birds seen flying in from the sea on 13 Mar. and 11 May. Autumn records came from Beachy Head, with 2 seen on 26 Sept. and 3 Oct. and a single on 8 Oct.

Pevensey Levels. Monthly maxima were of 8 on 17 Jan., 5 on 14 Feb., a roost of 6 on 25 Mar., 3 on 24 Apr. and one on 16 May. Autumn records were of a single during Oct. and Nov. and 2 on 21 Dec.

Pett Levels/Rye Hbr. Most records came from Rye Hbr with 2 birds seen in Jan., one in Feb., 3 in Mar. and one in Apr. One was seen flying out to sea on 19 May. Icklesham recorded a single bird from Mar. to May. In the autumn, 1-2 birds were seen at Rye Hbr from 19 Sept. to the end of the year and a single was at Pett Levels on 18 Sept.

Elsewhere, singles were recorded at Cooden Beach on 17 Jan., 3 Apr. and 15 Nov. At Glynde, 2 were seen on 5 Feb. and 4 on 9 Feb. One was seen at Arlington Res. on 10 May. At Woodingdean, 4 were recorded on 6 Feb. Singles were seen at Barnham on 1 Feb. and 16 Mar., and Moulsecocomb Wild Park on 1 Dec.

0778. NIGHTJAR (*Caprimulgus europaeus*). Scarce breeding summer visitor and rare passage migrant.

First recorded on 1 May at Stedham Common. Further records were singles at East Worthing on 10 May and Icklesham on 18 May.

89 breeding season records came from 13 sites. 48 were from West Sussex including 10 from the Parham-North Park area and 41 from East Sussex of which 33 were from Ashdown Forest. As there was no breeding survey this year, and thus less searching, the counts are encouraging.

Two autumn records were of one at Brighton Wild Park on 25 Aug. and one at Icklesham on 23 Sept.

0795. SWIFT (*Apus apus*). Regular summer breeding visitor, regular passage migrant.

First recorded on 18 Apr. at Chichester town and GP, with further singles at Arlington Res. on 21 Apr. and Pulborough Brooks on 22 Apr. Small numbers of birds reported from many sites, with 25 at Chichester GP on 24 Apr. Main arrival from 7 May with 150 at Arlington Res., and 150 at Rye Hbr on 8 May. The latter site had 700 birds on 13 May, and 1200 were present at Weir Wood Res. on 16 May. A partial albino was seen at Selsey village on 15 June.

Fledged juveniles were recorded from 4 July, when a total of 250 birds were seen at Broadwater, Worthing. Apparent southerly movements were noted from mid-July, with 800 at Hooe Level on 11 July and 200 over Pevensey Levels on 28 July. On 4 Aug., 1850 birds moved south over Pagham Hbr. Some 130 birds were recorded in Sept., and the last records were 3 at Seaford Head on 8 Oct. and one at Church Norton on 12 Oct.

0798. ALPINE SWIFT (*A. melba*). Rare vagrant.

One flew N over the Downs near Sompting on 1 Aug. (PMB) during a heavy swift passage. It is the 29th to be recorded in the county and the 6th in August.

0831. KINGFISHER (*Alcedo atthis*). Regular breeding resident and winter visitor.

Observations during winter months were as follows:

	Jan.	Feb.	Nov.	Dec.
No. of birds	17	14	32	22
No. of inland sites	6	5	10	6
No. of coastal sites	8	7	11	9

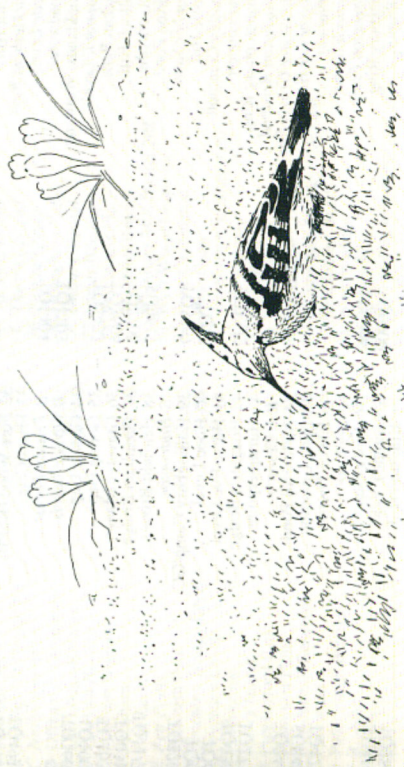
Four pairs bred at 2 sites. Another pair may have bred elsewhere. Two pairs attempted to breed at Pulborough Brooks. Pairs were seen at 3 other sites and birds were recorded in the breeding season at a further 3 sites. At Weir Wood Res. 2 juveniles were trapped for ringing on 6 July with a further 2 on 20th. In Nov. sightings were numerous and, allowing for duplication, 32 is a minimum figure, much higher than in recent years.

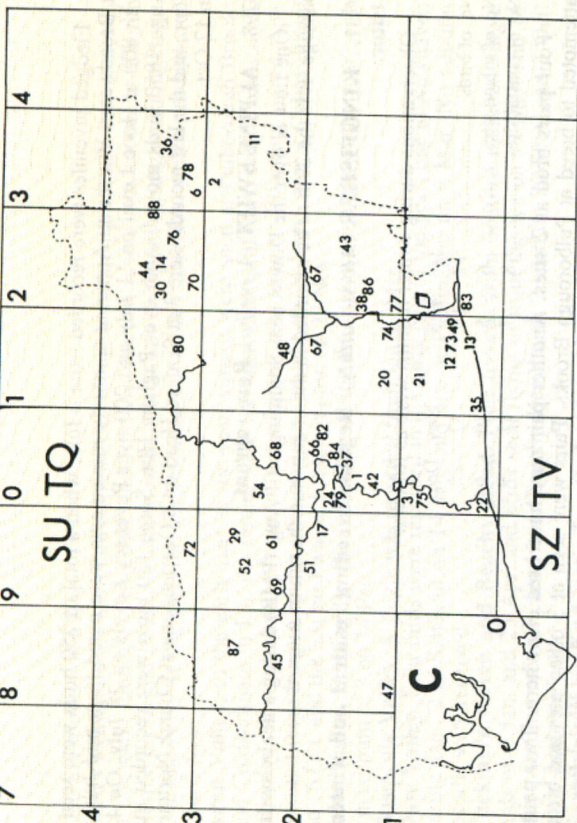
0840. BEE-EATER (*Merops apiaster*). Rare passage migrant.

One seen on the cliffs by the old lighthouse at Belle Tout, Beachy Head on 22 May (LAB) was also seen flying high to W over Hodcombe (RHC, CFW). This is the second year running that one has been seen at Beachy Head on 22 May.

0846. HOOPOE (*Upupa epops*). Regular spring passage migrant and scarce autumn passage migrant. Has bred.

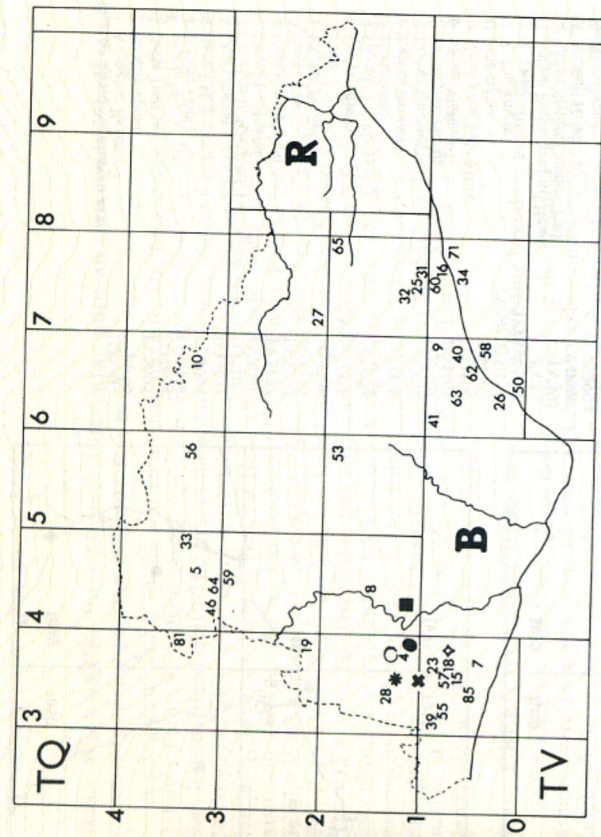
Seven records this year, the first at Pulborough Brooks between 6 Apr. and 14 Apr. (RJF, PTP, SJP *et al.*). Selsey Bill hosted 2 birds, on 11 Apr. (OM, RJS) and 22 Apr. (mo). One was seen at Sidlesham Ferry Field on 12 Apr. (SIK). Three birds were recorded in the autumn, the first at Whitbread Hollow, Beachy Head on 22 Aug. (*per.* RDME). On 3 Oct. there was one at Little Common, Bexhill (*per.* RH) and the last bird of the year was at Southbourne on 19 Nov. (MM).





Key to localities (not necessarily of public access)

- | | | | |
|----------------------------|---------|---------------------------|--------|
| 1 Amberley Wild Brooks | TQ0314 | 23 Cold Coombes, Kingston | TQ3707 |
| 2 Ardingly Reservoir | TQ3229 | 24 Coldwaltham Brooks | TQ0215 |
| 3 Arlington Reservoir | TQ0208 | 25 Combe Haven | TQ7071 |
| 4 Arundel WWT/Park | TQ3711 | 26 Crumbles Gravel Pit | TQ6301 |
| 5 Ashcombe Bottom/Farm | TQ42/43 | 27 Cuckmere Haven | TQ7121 |
| 6 Ashdown Forest | TQ3130 | 28 Dell Quay | TQ3313 |
| 7 Balcombe | TQ3610 | 29 Ditchling Beacon | |
| 8 Balmer Down | TQ3704 | 30 East Dean | SU9726 |
| 9 Barcombe Reservoir/Mills | TQ4314 | 31 East Head | |
| 10 Barrow Hill, Hoos | TQ6908 | 32 East Galdereford Level | |
| 11 Beckley Head | | 33 Exceat Bridge | |
| 12 Beckley Woods | | 34 Fairlight | |
| 13 Belle Tout | | 35 Faygate | TQ2134 |
| 14 Bewl Water | TQ63 | 36 Filsham LNR | TQ7071 |
| 15 Birling Gap | | 37 Fittle | |
| 16 Bluebell Railway | TQ32 | 38 Fishbourne Channel | |
| 17 Bluebell Channel | | 39 Flatropers Wood | TQ7513 |
| 18 Bostal Hill | | 40 Friars Gate | TQ4932 |
| 19 Bracklesham Bay | | 41 Friston Forest | |
| 20 Broadwater | TQ1404 | 42 Glynde Levels | TQ7607 |
| 21 Brooklands, Worthing | TQ1703 | 43 Goring Gap | TQ1001 |
| 22 Broomhill Level | | 44 Gravetye Manor | TQ3634 |
| 23 Buchan Park | TQ2433 | 45 Greattham Bridge | TQ0316 |
| 24 Bullock Hill | TQ3606 | 46 Henfield Brooks | TQ1121 |
| 25 Bulverhythe | TQ7708 | 47 Hodcombe | |
| 26 Burton Pond | SU9617 | 48 Hollingbury Camp/GC | TQ3207 |
| 27 Cumber Sands | | 49 Hoos Level | TQ60 |
| 28 Castle Hill | TQ3707 | 50 Horse Eye Level | TQ60 |
| 29 Chailey Common | TQ32 | 51 Houghton Bridge | TQ0512 |
| 30 Chabington | TQ1312 | 52 Hurspiperpoint | TQ2716 |
| 31 Chancetonbury Ring | | 53 Icklesham | |
| 32 Charleston Reelbed | | 54 Itford Mill Pond | TQ2436 |
| 33 Chichester Gravel Pits | | 55 Iping Common | SU8421 |
| 34 Chidham | | 56 Isle of Thorns | TQ4230 |
| 35 Chyngton Farm | | 57 Ivy Lake | |
| 36 Cissbury Ring | | 58 Jury's Gap | |
| 37 Climping | TQ1408 | 59 Kingley Vale | SU8110 |
| 38 Cobnor Point/Farm | TQ0000 | 60 Kingston Hill | TQ3807 |



B = Beachy, C = Chichester, R = Rye area (see over)

- | | | | |
|---------------------------|------------------|-------------------------------|-----------------|
| 48 Knepp Lake | TQ1521 | B R. Ouse | TQ01/SU91/92/82 |
| 49 Lancing | TQ10 | R R. Rother (East) | TQ23 |
| 50 Langney Point | TQ6401 | R R. Rother (West) | TQ70 |
| 51 Lavington Common | SU9418 | R Rother Levels | |
| B Lewes Brooks | | R Rye Harbour | |
| B Lower Cuckmere | | 70 St. Leonards Forest | |
| B Lullington Heath | SU9327 | 71 St. Leonards (on Sea) | |
| ■ Malling Down | TQ4211 | R Scone Court Gravel Pit | |
| 52 Malling Down | TQ5818 | B Seaford Head | |
| 53 Maynards Green | TQ0223 | C Selsey Hill | |
| 54 Mens, The | | B Seven Sisters Country Park | SU9632 |
| R Midrips | TQ2107 | C Severals, The | |
| □ Mill Hill, Shoreham | TQ3204 | 72 Shillinglee Mill Pond | TQ1604 |
| R Money Penny Gravel Pit | TQ3812 | C Sidlesham Ferry | |
| 55 Moulsecomb Wild Park | TQ5832 | B Splash Point | |
| ○ Mount Harry | | 74 Strivens Reelbed, Steyning | TQ1811 |
| 56 Nap Wood | TQ3607 | 75 Swanbourne Lake | TQ0107 |
| B Newhaven Tide Mills | TQ6805 | C Thorney Deep | |
| 57 Newmarket Hill | | 76 Tilgate Forest | TQ23 |
| 58 Normans Bay | | R Tillingham Valley | |
| R Northpoint Gravel Pit | TQ3911 | R Union Channel | |
| C Nuthourne Marsh | TQ4530 | 77 Upper Beeding | TQ2010 |
| 59 Old Lodge Reserve | | 78 Wakhurst Place | TQ3331 |
| C Paghram Harbour | TQ7609 | 79 Waltham Brooks | TQ01 |
| C Paghram Lagoon | | 80 Warnham Mill Pond/LNR | TQ1732 |
| 60 Pebsham | | 81 Weir Wood Reservoir | TQ033 |
| r Pett Level | SU9722 | 82 West Chilmington | TQ0717 |
| R Pett Pools | TQ60 | C West Dean | |
| 61 Petworth Park | TQ60/61 | C Westhampnett Gravel Pit | |
| 62 Penvensey Bridge Level | | C West Wittering | |
| 63 Pevensey Levels | TQ4431 | B Whitbread Hollow | TQ2004 |
| B Piddihole | TQ3612 | 83 Widewater | TQ0516 |
| C Piley Island | TQ7919 | 84 Wiggonholt Brooks/Common | |
| 64 Pippingford Park | | R Winches/sea Beach | TQ30 |
| * Plumpton Plain | TQ0518 | 85 Woodingdean | TQ2113 |
| 65 Powdermill Reservoir | TQ20/10/11/21/12 | 86 Woods Mill | SU8625 |
| C Prinstead | TQ00/01/02 | 87 Woolbeding Common | TQ23/33 |
| 66 Pulborough Brooks | | 88 Worth Forest | |
| 67 R. Adur | | | |
| 68 R. Arun | | | |
| B R. Cuckmere | | | |

0848. **WRYNECK (*Jynx torquilla*). Regular autumn passage migrant and scarce/rare spring passage migrant. Has bred.**

A good year, with 2 spring and 16 autumn records. The first spring record was at Halsey's Farm, Sidlesham on 25 Apr. (AF, RJS), the other was on 29 Apr. at Cow Gap, Beachy Head (RJF). The first of the autumn birds was seen at Clipping Beach on 21 Aug. (RJLK). Two more were found on 28 Aug., one at Sheepcote Valley, Brighton (TJW) and one at Beachy Head (NJT). Singles were recorded at Thorney Island on 28 Aug. (RPB) and 30 Aug. (TMJD). Up to 4 more birds were seen at Beachy Head with one at Cow Gap on 5 Sept. and another there on 12 Sept. (both DC, JFC, RJF). On 23 Sept. one bird was found at Belle Tout, which stayed until 25 Sept. (TL, NJT *et al.*). The last bird in this area was at the same site on 2 Oct. (MN, PJW). Two birds were recorded at Icklesham, one on 6 Sept. (TS, JW, RBW) and another was ringed on 29 Sept. (TS). Selsey Bill hosted at least 3 birds with 3 seen on 18 Sept. (mo) and one on 19 and 21 Sept. One was also seen at Pagham on 23 Sept. (TL) and another at Church Norton on 26 Sept. (BFF, RAD). The last bird of the year was at Newhaven on 7 Oct. (RTP).

0856. **GREEN WOODPECKER (*Picus viridis*). Regular breeding resident.**
Still widely recorded throughout the county. During the breeding season records of pairs were received from 15 sites. CBCs and other counts recorded 5 pairs at Kingley Vale, at least 5 pairs alongside the Bluebell Railway, 4 pairs at Pippingford Park, Ashdown, 3 pairs at Coombe Haven and single pairs at Westdean Woods, Pulborough Brooks, Hollingbury Camp and Beachy Head. Juveniles were observed at Findon, Partridge Green, Woods Mill, Sompting Abbots, Lancing, Waterhall, Brighton and Seaford Head.

0876. **GREAT SPOTTED WOODPECKER (*Dendrocopos major*). Regular breeding resident.**
Continues to be widespread throughout the county. A male was drumming at Ebernoe Common on 2 Feb. Pairs were recorded during the breeding season at 17 sites and territorial males at 6 other sites. Breeding success was reported from Pulborough Brooks, Woods Mill, Cooden Beach GC, Battle, Findon and Old Lodge Reserve, Ashdown. CBCs and other counts yielded at least 3 pairs adjacent to the Bluebell Railway, 5 pairs at Pippingford Park and single pairs at Kingley Vale, Westdean Woods and Maynards Green. Single birds flew in from the sea at Glyne Gap, Bexhill on 8 Aug. (an immature) and 23 Oct., and 2 at Beachy Head on 25 Sept. One was in tamarisk bushes on the shore at Clipping on 27 Dec.

0887. **LESSER SPOTTED WOODPECKER (*D. minor*). Regular breeding resident.**
Records were received from at least 55 sites across the county. Two were seen displaying at Knepp Castle, West Grinstead on 1 Jan. Pairs or territorial males in the breeding season were reported from Stansted Forest (2 sites), Aldsworth near Emsworth, Barnham, Greattham Common, Ashdown Forest (4 sites), St Leonards-on-Sea, and Hastings (2 sites). A pair raised 3 young at Cockerels Wood, Bexhill.
At Warmham MP one was seen on 9 dates between 2 July and 10 Dec. One was observed with a mixed tit and Nuthatch flock at Rackham Woods on 25 Oct. and 2 with a tit flock at Greattham Common on 6 Nov. All records, especially of breeding, are required of this species.

Beachy Head/Newhaven area

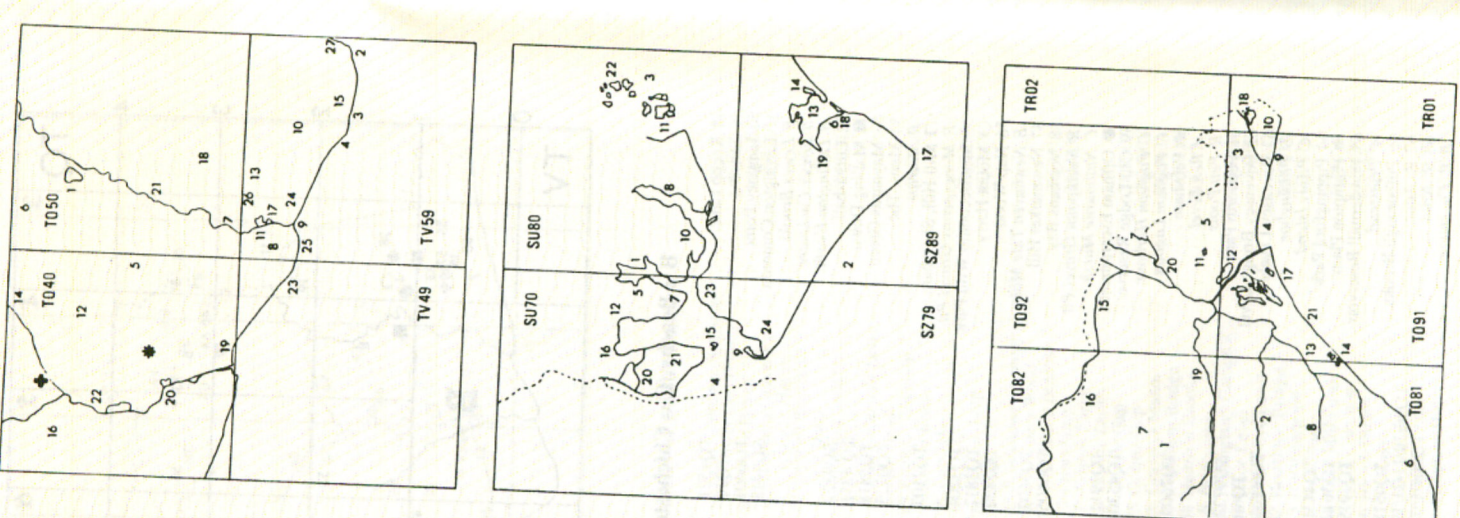
- 1 Arlington Reservoir
- 2 Beachy Head
- 3 Belle Tout
- * Blackcap
- 4 Birling Gap
- 5 Bostal Hill
- 6 Chalvington
- 7 Charleston Reedbed, Litlington
- 8 Chyngton Farm
- 9 Cuckmere Haven
- 10 East Dean
- 11 Excent Bridge
- 12 Firle
- 13 Friston Forest
- 14 Glynde Levels
- 15 Hodcombe
- 16 Lewes Brooks
- 17 Lower Cuckmere
- 18 Lullington Heath
- + Mount Caburn
- 19 Newhaven Tide Mills
- 20 Puddinghoe
- 21 R. Cuckmere
- 22 R. Ouse
- 23 Splash Point, Seaford Head
- 24 Seven Sisters Country Park
- 25 Seaford Head
- 26 West Dean
- 27 Whitbread Hollow, Beachy Head

Chichester area

- 1 Bosham Channel
- 2 Bracklesham Bay
- 3 Chichester Gravel Pits
- 4 Chichester Harbour
- 5 Chidham
- 6 Church Norton
- 7 Cobnor Point/Farm
- 8 Dell Quay
- 9 East Head
- 10 Fishbourne Channel
- 11 Ivy Lake, Chichester GP
- 12 Nurbourne Marsh
- 13 Pagham Harbour
- 14 Pagham Lagoon
- 15 Pilsey Island
- 16 Princed
- 17 Selsey Bill
- 18 Severals, Church Norton
- 19 Sidlesham Ferry
- 20 Thorney Deep
- 21 Thorney Island
- 22 Westhamnett Gravel Pit
- 23 West Itchenor
- 24 West Wittering

Rye area

- 1 Beckley Woods
- 2 Brede Levels
- 3 Broomhill Level
- 4 Camber Sands
- 5 East Guideford Level
- 6 Fairlight
- 7 Flatroppers Wood
- 8 Icklesham
- 9 Jury's Gap, Camber
- 10 Midrips
- 11 Money Penny Gravel Pit
- 12 Northpoint Gravel Pit
- 13 Pett Level
- 14 Pett Pools
- 15 R. Rother (East)
- 16 Rother Levels
- 17 Rye Harbour LNR/SSSI
- 18 Scooney Court Gravel Pit
- 19 Tillingham Valley
- 20 Union Channel
- 21 Winchelsea Beach



0974. **WOODLARK** (*Lullula arborea*). Scarce winter visitor, scarce passage migrant, breeds most years.

Winter records were few but breeding was recorded from 3 localities and probably one other, all in West Sussex.

The good number of autumn records were as follows: One at Southwick Hill (MB) and one at Hollingbury Camp (PIW) on 18 Sept., one at Atherington near Climping on 25 Sept. (JRH) and one at Pagham on 26 Sept. (RAI, SJK, BFF). In Oct., at least 4 were recorded between Beachy Head and Birling Gap from 3rd-15th (mo), one at Selsey Bill on 3rd (RP), one at Whitbread Hollow on 3rd and 10th, 2 at Brighton Wild Park on 11th, 16th and 17th, 2 at Selsey Bill on 15th (BJ), 2 at Elms Farm, Icklesham on 16th (TS), one at Lords Common near Henley on 17th (JN) and lastly one at Hodcombe, Beachy Head on 25th.

0976. **SKYLARK** (*Alauda arvensis*). Regular breeding resident, regular winter visitor, regular passage migrant.

Peak winter counts were 450 at Seaford Head, 136 at Glyne Gap Marsh and 87 on Rodmell Brooks. A leucistic individual was seen among a flock of 100 at Mile Oak, Portslade.

During the breeding season singing males were reported from a number of sites, notably 19 on Ashdown Forest, 16 on Horse Eye Level, 15 on 8 sq. km of downland near Saldeun and 32 at Rye Hbr SSSI.

In Oct. 500 flew W from Seaford Head in 1 hour on 8th and 30 flew W from Bewl Water on 17th. Winter flocks were noted from 23 localities, the most significant being 145 from Hollingbury Camp, 359 from Sheepcote Valley, Brighton and 140 from Pagham in Oct., 200 from Pagham and 132 from Seaford Head in Nov. and flocks of 100 from the Upper Adur Levels and Southbourne, near Emsworth in Dec.

0981. **SAND MARTIN** (*Riparia riparia*). Regular passage migrant, regular breeding summer visitor.

First recorded on 21 Mar. with 9 at the Severals, Church Norton and singles at East Head and Aldsworth Pond, and 2 on 23 Mar. at Thorney Island. No large concentrations were reported in spring, the biggest being 40 at Arlington Res. on 1 Apr., 22 at Burton MP on 7 Apr. and 20 flying over Harbour Farm, Rye on 20 Apr.

The breeding colony at Dunford GP had 55 nest holes in use (cf. 45-50 in 1991 and 100 in 1992) and that at Heathend had an estimated 80-90 nests. No breeding was recorded at Coates Castle.

Autumn passage commenced in July and records included 250 at Arlington Res. on 18th rising to 500 by 31st, 250 at Pagham Hbr on 18th and 150 at Elms Farm, Icklesham on 28th. Compared with 1992, 1993 produced a much stronger autumn passage; some notable concentrations were 5000 at Elms Farm on 8 Aug., 6000 at Ivy Lake, Chichester GP on 11 Aug., 3500 roosting at Thorney Deepes on 16 Aug. and 2000 at Church Norton on 28 Aug. Numbers at Elms Farm rose to in excess of 10000 on 2 Sept., with 2000 at Castle Water, Rye the previous day and at Church Norton on 28 Sept.

Final records for the year were singles at Weir Wood Res. on 24 Oct. and at Rye SSSI on 16 Nov.

0992. **SWALLOW** (*Hirundo rustica*). Regular breeding summer visitor, regular passage migrant.

Two at Hollingbury Camp on 14 Mar. was an early record before birds began to be reported more regularly from 20 Mar., with records along the coast from Pagham Hbr to Rye and inland from Warnham MP and Weir Wood Res. in the last week of the month. Many Apr. records were of singles or small numbers but in contrast was a report of 2000+ at Harbour Farm, Rye on 20th (BJY). 45 at Aldsworth Pond on 19th and 50 at Arlington Res. on 21st were the next largest parties. The few May records included 595 arriving during a 15 hour seawatch on 10th at Worthing Beach, when

also 215 were reported from Selsey Bill.

Only 5 records of breeding were received including 3 successful broods reared in bunkers on Thorney Island.

A pre-migration gathering was a roost of 1000 at Thorney Island on 16 Aug.; 384 were counted at Sompting Downs and Abbots on 31 Aug. and also on that day 1450 flew S at Church Norton. Large gatherings in Sept. included 4500 at Church Norton, c.3600 at Lancing Clump and 2000 in 2 hours at Eastbourne on 2nd, 4500 at Pett Level on 17th, 9000 at Selsey Bill on 18th, 10000 at Beachy Head on 18th, 19th and 25th, 2000 at Elms Farm, Icklesham on 20th and at Church Norton on 22nd. Records away from the coast were generally of small numbers, exceptions being afternoon movements S/E at Maynards Green of 1000 on 16 and 18 Sept., 500 on 19 Sept. and 350 on 29 and 30 Sept. A further 300 passed there on 3 Oct. 3100 flew E at Seaford Head in 2 hours on 8 Oct., whilst movement at Beachy Head on 10 Oct. was described as being approximately 4000 per hour. At Elms Farm over 350 were recorded on each of 9 of the first 19 days of Oct. Two interesting movements, in view of their direction, were 100 W at Bewl Water on 12 Oct. and 300 NW over the Knepp Estate on 16 Oct. 5000 per hour at Beachy Head on 25 Oct. was the last major movement recorded.

The last of a number of Nov. records was of 2 in the Cuckmere Lower Valley on 14th.

0995. **RED-RUMPED SWALLOW** (*H. daurica*). Very rare spring vagrant.

One flew E at Cow Gap, Beachy Head on 2 May (DC, JFC). It has been accepted by *British Birds* and is the 11th county record.

1001. **HOUSE MARTIN** (*Delichon urbica*). Regular breeding summer visitor, regular passage migrant.

Early records were singles at Seaford Head and in the Climping-Littlehampton gap on 21 Mar. During the next two months records in excess of 50 birds were 60 at Arlington Res. on 25 Apr., 100 at Bewl Water on the same day, rising to 200 on 9 May, and 130 at Iffieldwood, Crawley on 16 May.

Again few breeding records were received and some showed a fall in numbers of nests compared with 1992. At Maynards Green 13 pairs (cf. 20 in 1992) raised 23 broods, whilst at Broad Oak 5 nests were reported (9 in 1992). Other breeding records were of about 20 pairs in Rye Harbour village, 15 nests on the Parish Hall at Singleton, and 7 nests at Sheffield Park Station, Bluebell Railway. Unspecified numbers of nests were reported from Bulverhythe, St.Leonards, and from Tas Coombe, Willingdon where numbers were said to be more than in 1992.

200 birds at Arlington Res. on 26 July were possibly the start of autumn passage, but no further records came before 23 Aug. when 405 were seen at Sompting Downs and Abbots. 600 were at Church Norton on 26 Aug. whilst 1500 flew E at Seaford Head on 28 Aug. Passage numbers increased with estimates of 4000 at Elms Farm, Icklesham on 2 Sept., 1500 E in 15 minutes at Worthing Beach on 16 Sept. on which day also in excess of 2000 birds were recorded at Lancing Clump and at Sompting Downs and Abbots, and 8000 at Church Norton. 5000 passed E at Beachy Head on 18 Sept. and an estimated 20000 on 25 Sept. An albino bird was reported from Brooklands, Worthing on 28 Sept. when also one with white wings was seen in Rye Harbour village.

An inland record of 1200 came from Maynards Green on 2 Oct. Other large movements were 500 E at Seaford Head on 8 Oct., approximately 4000 per hour at Beachy Head on 10 Oct. and 5000 per hour there on 25 Oct. Last recorded at Chyngton Farm, Cuckmere with 3 E on 21 Nov.

1002. **RICHARD'S PIPIT** (*Anthus novaeseelandiae*). **Rare, mainly autumn, visitor.**

One was seen in a field adjacent to Pagham Hbr and north of Church Norton on 3 Nov. (LC, ASC, TJE). It is the first record since 1989 and only the 3rd in Nov.

1005. **TAWNY PIPIT** (*A. campestris*). **Rare, mainly autumn, visitor.**

A juvenile at Camber Sands on 9 September (SJP) was omitted in error. It brings that years total to a record 14.

1993: Two were recorded, an adult at Rottingdean on 25 Aug. (PJB) and a first-winter on the shingle spit at Church Norton from 31 Aug-2 Sept. (TJE *et al.*).

1009. **TREE PIPIT** (*A. trivialis*). **Locally common breeding summer visitor and regular passage migrant.**

First recorded at Climping-Littlehampton Gap on 2 Apr. Only 7 others were noted on passage.

There was an increase to 117 breeding season territories of which 40 were on Ashdown Forest and 20 in the adjacent Pippingford Park.

The very large number of 674 records was reported on autumn passage with a maximum of 182 at Lancing Clump in Aug., followed by 51 in Sept. 141 were counted for the whole period at Icklesham.

1011. **MEADOW PIPIT** (*A. pratensis*). **Regular breeding resident, winter visitor and passage migrant.**

Still under-reported. There were only three counts in excess of 50 in the first three months (from Glyne Gap Marsh, and Billingshurst, with 206 on the Downs between the Ouse and the Cuckmere on 28 Feb.). Spring passage, noted from 20 Mar., was heavy: on the 21st, 790 moved north at Seaford Head. On 1 Apr., there were 1500 around Pagham Hbr, and a further 1000 at Selsey Bill. Five pairs nested at the old Pominis site, Selsey, and 23 pairs in and around the Rye Hbr SSSI.

There were only six records between 1 June and 26 Aug., when autumn passage began with 150 seen from a boat off Winchelsea Beach. 300 flew W at Seaford Head on 30th. There were up to 100 at Middle Bridge Level, Pevensey, early in Sept. and Icklesham recorded 20-80 regularly between then and the end of Oct. Considerable numbers were found from late Sept.: 1550 at Church Norton on 22nd (with 400 at Selsey Bill); 2000 W in 2 hours at Seaford Head on 25th; where there were further high counts of 800 W on 26th; and 1150 W on 8 Oct. 2000 were at Beachy Head on 25 Oct. There were a further 25 counts in excess of 100 in Sept. and Oct., mostly from the coast. But 30 by the Mole at Gatwick (15 Oct.), 50 at Lavington Common (23 Oct.) and 50 at Scobells Farm, Barcombe (24 Dec.) perhaps give some hint of the distribution of this species inland.

1014. **ROCK PIPIT** (*A. petrosus*). **Regular breeding resident, winter visitor and passage migrant. Rare away from the coast.**

1991: A Scandinavian Rock Pipit (*A. p. littoralis*) was at Newhaven West Pier on March 24 (EDU, RGS). In the last decade, there have been records referring to this race in 1984, 1989, 1991 and 1992.

1993: Although Thorney Island held birds at both ends of the year (9 in Jan. and 8 in Dec.), the Seaford Head-Cuckmere area remains the Sussex stronghold of this species. Numbers in that latter area have been remarkably steady over the past few years. Records from the west of the county seem to indicate a more unpredictable presence between Climping and Chichester Hbr. Wintering numbers at Brighton Marina appear to have declined.

There were 23 between Seaford and the Cuckmere on 1 Jan., and similar numbers were maintained throughout the first two months: 3 pairs stayed (an assumption, that) to breed, and these were the only birds recorded between 28 Mar. and 25 Aug., except for 1-2 between Roedean and Rottingdean in June and July.

There were birds along the coast from late Aug. At Pagham Hbr and Church Norton Shingle Spit (whence there had been no records early in the year), there were 23 on 19 Oct. and there were 10 at Pagham Hbr North Wall on 16 Dec. Seaford Head held around 20 by Nov.

There were no inland records in 1993, nor any reports from Worthing or from the coast from Hastings to Rye.

1015. **WATER PIPIT** (*A. spinoletta*). **Scarce annual winter visitor and passage migrant.**

Most records were from the first quarter of the year: one at Church Norton on 25 Feb. (BJ) was followed by another single at Climping on 6 Mar. (RK). Most records came from Thorney Island, between 10 Mar. and 13 Apr., with a maximum of 6 on 29 Mar. (CBC, RJS, CB, TE). A further 6 were on Pilsley Island on 1 Apr., with one remaining to 13 Apr. (CBC). There were 2 casual records of birds away from the coast: at Charleston Reedbed on 1-2 Jan. (WJMS) and Pulborough Brooks on 22 Feb. In April-early May, there were up to 2 at Pett Level, with one remaining to 18 May (CHD, RFB, JABG).

Wintering birds, and/or birds passing through, were noted from 21 Oct., when 3 were at Pagham Hbr North Wall (TJE). One was at Icklesham on 30 Oct. (TS), 4 were at Apuldram Manor SF on 24 Nov. (TJE), 3 in Coombe Haven on 12 Dec. (SR, IW) and one at Fishbourne Channel on 14 Dec. (OM). Only one was wintering (from 8 Nov.) at Thorney Deepes (CBC), and there was only one record from Pagham Hbr, on 14 Nov. (SJK).

1017. **YELLOW WAGTAIL** (*Motacilla flava*). **Regular passage migrant and breeding summer visitor.**

A reasonable spring passage was followed by an apparently poor breeding season at the main sites. The first was at Rye on 24 Mar. and Rye recorded good numbers through April: 10 on 6th, 25 on 7th, 43 on 8th and 15 on 10th (when 14 were at Pett Level). Other counts in excess of 10 were at Horse Eye Level on 16th and Glyne Gap and Arlington Res. on 25th. Rye Hbr held 19 on 1 June but only 25 pairs bred in and around the SSSI there (66 in 1990, 38 in 1991, 30 in 1992). Pulborough Brooks reported only 6 pairs breeding (12 in 1990, 16 in 1991, 19 in 1992).

Return passage started late in July with 38 on Glynde Levels on 25th and 15 at Pett Level on 29th. There were 26 records in excess of 20 birds in Aug. and 36 in Sept. These included 390 E at Seaford Head (in parties of up to 40) on 28 Aug., when over 300 were around Pagham Hbr. Some 200 were at Thorney Deepes on 31 Aug. As in previous years, this peak period coincided with the holiday weekend. 240 flew W at Seaford Head on 11 Sept. Considerable numbers passed through to the end of Sept., with 63 E in 15 minutes at Worthing Beach on 26th. 88 birds (more than in recent years) were seen in Oct., with three groups of over 10 birds (17 at Brooklands, Worthing on 2nd, 14 near the Adur on 3rd and 11 at Seaford Head on 8th). The last was at Icklesham on 28th.

There were groups on the Downs in the autumn, but few further north, though 5 were at Bewl Water on 12 Sept., one at Knepp Castle on 20 Sept., another there on 7 Oct. and 3 at Faygate on 22 Sept.

There was an average showing of Blue-headed Wagtails (*M. fl. flavissima*), which were recorded from the Rye Hbr area from 4 Apr. to 23 June, with one, or perhaps two, males present. Also in spring, one was at the Midrips on 17 Apr. In the autumn, one at Brooklands, Worthing, from 12 Sept., apparently to the end of the month.

One showing the characteristics of the Grey-headed Wagtail (*M. f. thunbergi*), the first to be recorded in the county since 1984, was at Arlington Res. on 11-12 May (SL, WRT).

1019. **GREY WAGTAIL** (*M. cinerea*). **Regular breeding resident, winter visitor and passage migrant.**

In Jan. and Feb. reported from 9 coastal and 17 inland localities, the maximum flying E at Seaford Head on 11 Jan. The only record of possible migration was one breeding survey of this species and the results from this, together with additional records received, gave the following totals:

Sites with one bird present	51
Sites with breeding probable	45
Sites with breeding confirmed	80

The first autumn passage record was of one at Church Norton on 19 Aug., followed by one there on 28th and 2 at Thorney Deepes on 31st. A total of 190 were recorded in Sept. from 10 coastal sites, of which Church Norton had 16 on 12th, 10 on 19th and 11 on 22nd; there were 16 at Climping on 15th, 16 at West Itchenor on 22nd, 10 at Brooklands, Worthing on 25th and 40 at Sidesham Ferry and Church Norton on 26th.

In Oct., numbers were very small with a total at coastal sites of only 19. In Nov. and Dec. mainly singles were recorded from 8 coastal and 28 inland sites, the largest numbers being 3 at Lewes Brooks on 19 Nov. and 3 at Chichester Hbr on 1 Dec.

1020. **PIED WAGTAIL** (*M. alba*). **Regular breeding resident, winter visitor and passage migrant.**

Disconcertingly few records were received. Late winter roosts were found at South Ambersham and Haywards Heath (100 each in mid-January); at Billingshurst S.W. (50 at the end of January); and at Thorney Deepes S.W. (83, 7 Feb.). In addition there were gatherings in excess of 30 at Climping, Combe Haven and Chichester G.P. 60 flew W at Shoreham Power Station on 14 Feb.; it is not clear whether birds seen moving along the coast between Brighton and Worthing are merely dispersing from a local roost. Evidence of passage came with 3 off the sea at Glyne Gap on 7 Feb. and 25 N at Seaford Head on 21 Mar.

Concentrations were still noted in April, with 26 at Gatwick Airport on 22nd and 17 at Icklesham (where there had been 14 on 10 Mar.) on 23rd. Very few breeding season records were received. A pair bred in a pile of old tyres at Plumpton Green.

By the second half of July, Arlington Res. and Icklesham were recording 30-40 a day, with 100 at Arlington on 24 Aug. (cf. Grey Wagtail). The shingle spit at Church Norton hosted a remarkable 250 on 25 Sept., with 100 there the following day. Icklesham totals had declined to 10-15 by the first week of Nov. Considerable numbers dropped up at several places across the county, with October records of groups of more than 35 either on the ground or passing over from Newhaven, Copthorne, Hastings, Beachy Head, Selsey West Fields, Church Norton, Seaford Head and Pease Pottage. Pre-roosts and roosts were found in December at Durrington, Maynards Green, Apuldram, Crowborough, Combe Haven, Burgess Hill and Maynards Green (which held the largest number 85 on 3 Dec.).

There were 35 records of White Wagtails (*M.a.alba*), an average showing. Of these 23 fell between 20 Mar. (2, Glyne Gap) and 16 May (1, Arlington Res.), and the remaining 12 between 27 Aug. (1, Arlington Res.) and 11 Nov. (1, Stanmer Park). The spring maximum was 6 at Castle Water, Rye Hbr on 30 Mar.; in autumn, there were 8 at Icklesham on 28 Oct.

1066. **WREN** (*Troglodytes troglodytes*). **Regular breeding resident, regular winter visitor.**

Counts of birds in the breeding season included 112 at Hollingbury Camp, 90 adjacent to the line of the Bluebell Railway and 50 in 21 ha at Limekiln Woods, Crowborough. Records for the latter part of the year were few but included 26 in 67.5 ha at Marsh Farm, Yapton on 28 Oct. and 83 counted in the Climping to Littlehampton Gap on 25 Dec.

1084. **DUNNOCK** (*Prunella modularis*). **Regular breeding resident, regular passage migrant.**

Counts of breeding birds included 66 at Hollingbury Camp, 24 adjacent to the line of the Bluebell Railway, 7 in 45.3 ha at Grantley Farm, Maynards Green and 9 pairs in 60 ha at Kingley Vale. In Nov. 21 were counted in 67.5 ha at Marsh Farm, Yapton on 20th.

1099. **ROBIN** (*Erithacus rubecula*). **Regular breeding resident, regular passage migrant and winter visitor.**

Counts of breeding birds in defined areas were 80 adjacent to the line of the Bluebell Railway, 43 in 45.3 ha at Grantley Farm, Maynards Green, 131 at Hollingbury Camp and 42 pairs in 60 ha at Kingley Vale. The first fall of 50 at Whitbread Hollow on 15 Aug. was a high number for so early in the season. 127 were counted on 25 Sept. at Lancing Clump and 100 at Beachy Head on 3 Oct. At the end of the year 20 were present at Alexandra Park, Hastings on 27 Dec.

1104. **NIGHTINGALE** (*Luscinia megarhynchos*). **Widespread but not numerous breeding species and passage migrant.**

The first arrivals were heard at both Coombe Haven and Beachy Head on 10 Apr., at Woods Mill on 11 Apr. and on 12 Apr. singles were recorded at Coldwaltham, Climping and 4 males were singing at Hurst Green. During the spring 130 singing males were recorded from 59 different tetrads, 35 tetrads in West Sussex and 24 in East Sussex. Although observations were more widespread in West Sussex the highest numbers were in East Sussex with 10 singing males along 2 miles of road between Ditchling and Street on 23 Apr., 10 at Beauport Park, near Hastings on 9 May, 8 at Milton Hide, near Arlington on 15 May and 6 singing males at Lullington Heath on 24 May.

There were regular records during July and Aug. from Elms Farm, Icklesham with a maximum of 7 on 31 July and several Aug. days with 3 or 4 noted. At Beachy Head, traditionally the prime site for autumn Nightingales, there were only 5 records of single birds between 1 - 31 Aug. Elsewhere singles were noted at Sompting on 3 Aug., at Bewl Water on 15 Aug. and at Lancing Ring on 24 Aug., 30 Aug. and 11 Sept.

1106. **BLUETHROAT** (*L. svecica*). **Rare passage migrant.**

Four were recorded, a male at Pagham Harbour North Wall on 31 Aug. (RK) and 3 trapped at Elms Farm, Icklesham on 7, 18 and 20 Sept. (RBRG). The latter being an adult male of the 'red-spotted' race *L. s. svecica*. This is the best showing since 1977, when 4 were also seen.

1121. **BLACK REDSTART** (*Phoenicurus ochruros*). **Regular winter visitor and passage migrant. Breeds most years.**

A good year with approximately 300 records. The Jan. total showed a drop on number of records reported towards the end of 1992 (SyBR 45: 65). However the Mar. total was certainly the highest for many years. The approximate monthly totals were:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
42	13	76	39	11	2	-	3	14	54	31	16

At Hope Gap near Seaford 3 birds were seen in early Jan. Singles were seen on 6 dates in Jan. at Thorney Island and Selsey Bill. The 1992 individual at Goring Gap was still present to 13 Mar. The 2 birds seen at Climping - Littlehampton Gap on 2 Jan. were present until mid-Mar. At the Cement Works near Shoreham 2 pairs were observed on 14 Jan. A single reported at North Hill, Midhurst on 2 Feb. was the only early record inland. The first record of a singing male was on 2 Mar. at Shoreham Harbour. Early Mar. saw the first migrants, 3 individual females being seen at Glyne Gap, Bexhill between 10-21 Mar. A female was seen at Bewl Water on 22 Mar. Also

inland on 2 Apr. 2 were at Limekiln Wood, Crowborough.

There was no proof of breeding but 6 singing males were recorded, all at coastal sites.

July produced no records and the first returning birds were reported on 20 Aug. (2) at Sumping Brooks and 30 Aug. (1) at Long Pit, Rye Hbr SSSI. The majority of Sept. and early Oct. records came from Beachy Head. Selsey Bill had records almost daily between 14-21 Nov. with 2 pairs on 19th. Records were fewer towards the year's end but a female seen in East Grinstead town centre on 20 Dec. was still present on 31st.

1122. REDSTART (*P. phoenicurus*). Scarce breeding summer visitor and regular passage migrant.

The first record was on 13 Mar. at Bognor (RK). This was the earliest ever county record, displacing that at Pulborough Brooks on 17 Mar. 1992. Another early sighting was of one at Beachy Head on 21 Mar. 48 more passage birds were reported, including a late one at Pulborough Brooks on 1 June.

During the breeding season 20 territories were recorded on Ashdown Forest and 21 in the adjacent Pippingford Park where 26 juveniles were ringed in boxes on 1 June (JESC). Only 6 were reported elsewhere, at Ambersham Common, St. Leonard's Forest and Eridge Park.

In autumn the very large number of 852 was reported, with 69 recorded in the Beachy Head-Birding Gap area on 18 Sept., while 20 were recorded at Seaford Head and 23 elsewhere on the same day. The last for the year was at Selsey Bill on 15 Oct.

1137. WHINCHAT (*Saxicola rubetra*). Regular passage migrant; irregular breeder.

A good spring passage was followed by an excellent autumn, even allowing for double counting, with recent Sept. totals being maintained, and much increased numbers for Aug. (more than double the maximum of the past decade) and for Oct. There were no breeding records. Maximum monthly totals were:

Apr.	May	July	Aug.	Sept	Oct-Nov.
36	84	10	860	887	67

Birds were recorded in spring from 10 Apr. (one, characteristically at Seaford Head; the latest arrival since 1987) to 16 May (one, Glyne Gap), with 2 late birds at Seaford Head on 29 May. While there were no records of more than 8 together, records were well spread both along the coast and, with the exception of one at Castle Hill on 20 Apr., from 1 May on the Downs. One was at Coldwaltham Brooks on 13 May; otherwise there were no inland records in spring.

Autumn records spanned the period from 7 July (one, Icklesham, which appeared to stay through the month) to 14 Oct. (singles at Sheepcote Valley, Brighton and at Pagham), with a very late bird at Icklesham on 10 Nov. Double figure counts began on 19 Aug.; there were 20 at Icklesham on 21st and 25 there on 23rd; 27 at Beachy Head, 24 at Seaford Head and 30 at Sheepcote Valley on 28th and 33 at Castle Hill on 31st. In Sept., 24 were at Thorney Island on 2nd, 31 at Seaford Head on 11th and 30 at Birling Gap on 18th. There were 8 at the North Wall of Pagham Hbr on 7 Oct. and 8 at Seaford Head on 10th.

There were very few autumn records from north of the Downs: a handful from Arlington and up to 12 at Faygate (1 Sept.).

Some autumn birds linger, but that groups pass through is apparent from the Icklesham records: after one on 7 days in July, and 9 records of 11 birds to 18 Aug., daily totals thence to 29 Aug. were as follows: 12, 15, 20, 4, 25, 10, 6, 4, 6, 6, 12. Despite uncertainty as to how far reported totals are inflated by the repeated inclusion of lingering birds, the three year moving averages for records of Whinchat from July to Sept. do seem to show a recent increase in occurrence:

82-84	83-85	84-86	85-87	86-88	87-89	88-90	89-91	90-92	91-93
493	417	492	647	697	648	592	687	912	1244

This apparent increase is of interest in view of the national decline of the Whinchat. It has been achieved without the benefit of dramatic falls, such as that which brought 500-1000 to Beachy Head on 20 Sept. 1980. And as this species can appear in groups of 15-25 at many places on, and to the south of, the Downs which are not regularly watched (e.g., Pyecombe and Streat Hill), it is likely that actual totals are higher than recorded. Oct-Nov. records for the past twelve years show a continuing fluctuation:

1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
70	33	20	21	13	25	29	22	27	49	16	67

1139. STONECHAT (*S. torquata*). Local breeding resident and regular passage migrant.

An excellent year for this species. The monthly totals for the first quarter were 78 in Jan., 71 in Feb. and, excluding those in breeding areas, 26 in Mar. There was a large increase in the numbers breeding in the county, with as many as 75 pairs recorded (cf. only 11 in 1992), of which c.40 were on Ashdown Forest.

In autumn, counts from coastal sites included 21 at Beachy Head on 18 Sept., a remarkable 27 at Thorney Island on 3 Oct. and 28 at Selsey on 10 Oct. The population remained high in Nov. and Dec., the respective totals being 56 and 77 from widely scattered localities.

1146. WHEATEAR (*Oenanthe oenanthe*). Regular passage migrant and breeding summer visitor.

The first arrivals were one at Selsey Bill on 10 Mar., one at Balsdean near Rottingdean on 11 Mar., 2 at Whitbread Hollow on 12 Mar. and one at Seaford Head the same day. Then becoming widespread along the coast from 18 Mar. The first inland record was of one at Gatwick Airport on 19 Mar.

Breeding was only confirmed at Rye Hbr LNR where 6 pairs nested with good success. There were no June records from any other site!

Autumn dispersal began from 4 July, but there were only 9 records in July away from Rye Hbr. There were many birds in Aug. and Sept., but by mid Oct. few remained. The last of the year were one at Seaford Head on 24 Oct., one at Pagham Hbr LNR on 27 Oct. and, finally, a male at Rye Hbr LNR on 29 Oct.

Individuals considered to be of the Greenland race *O. o. leucorrhoa* were reported from Brighton on 27 Apr., Seaford Head on 22 May and one was ringed at Icklesham on 22 Sept.

1186. RING OUZEL (*Turdus torquatus*). Regular passage migrant.

An average spring and autumn. The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
-	-	-	2	20	12	-	-	-	38	183	6

First recorded in March with a single at Eastbourne on 11th, then a gap until a single at Rottingdean from 27 Mar-2 Apr. In Apr. only Seaford with 2 on 12th and 4 on 24th, and Newhaven with 4 on 19th produced more than singles. For May, Beachy Head had 2 on 1st and Seaford Head had 3 on 1st, 2 on 3rd and 2 on 22nd. Singles were present at Southsea, Pagham Hbr and Beachy Head on 8th, 12th and 29th respectively.

First of the autumn were 3 at Seaford Head on 11 Sept. followed by 2 at Beachy Head on 12th. There was a small fall on 25 Sept. with 13 at Fairlight Glen and 4 at Beachy Head. In Oct. Seaford Head had 11 on 8th, Hollingbury Camp 8 on 9th and 37 on 10th, Beachy Head 24 on 10th, 8 on 13th and 5 on 14th, and Sheepcote Valley, Brighton 10 on 14th. A group of 5 was seen flying SSW at Offham near Lewes in the early evening of 10th. There were Oct. records of 1-3 birds from 17 other sites across

the county. Nov. brought a single on 1st and 2 on 3rd to Beachy Head and singles to Seaford Head on 6th, Pulborough Brooks on 8th and Hollingbury Camp on 20th, the last record of the year.

1187. **BLACKBIRD** (*T. merula*). **Regular breeding resident.**

Darwell Res. had a peak winter count of 43 on 17 Jan. Breeding surveys of birds in defined areas showed 45 pairs in one 60 ha section of Kingley Vale and 29 pairs in a nearby 57.9 ha section of yew and ash woodland. There were 10 pairs in 12.1 ha in Westdean Woods and 7 pairs in 16.1 ha at Barns Copse, Binsted, Grantley Farm, Maynards Green supported 28 pairs on 45.3 ha, whilst heavy density of breeding birds supported in some urban parks was evidenced by the 18 pairs in 7.5 ha in Hotham Park, Bognor Regis.

In the autumn 72 were seen in Sheepcote Valley, Brighton on 19 Oct., and on 23 Oct. there were 120 at Seaford Head, including a number of newly arrived migrants. On 5 Nov. there were 150 in Fairlight Country Park and on 20 Nov. there were peak counts of 95 at Alexandra Park, Hastings and 204 in Moulsecocomb Wild Park. On Christmas Day Preston Park, Brighton had 45, whilst 75 were seen in the 3 km coastal gap between Littlehampton and Climping.

1198. **FIELDFARE** (*T. pilaris*). **Regular winter visitor and passage migrant.**

Few large flocks were reported in the first part of the year. The largest numbers were 250 at Pease Pottage on 7 Feb. and 400 at Tilgate on 27 Feb. where 200 were still present on 14 Mar. The last reported were 40 at Weir Wood Res. on 3 Apr. and 20 on Pevensy Levels on 14 Apr.

The first returning autumn bird arrived at Lancing Clump on 15 Sept., an average date. This was followed by 6 at Seaford Head on 24 Sept., 2 feeding on fallen apples in a West Worthing Garden on 2 Oct. and one at Hurst Green on 3 Oct. There was a widespread arrival along the coast on 14 Oct. including 500 at Pett Level, 200 at Hastings and 130 at Sidlesham Ferry.

By 17 Oct., inland records started to increase with 125 over Bewl Water, 45 at Wakehurst Place and 40 near Billingshurst. On 28 Oct., there were 500 at Amberley Wild Brooks and by 11 Nov., 1000 had gathered on Pevensy Levels. During cold weather on 21 Nov., reports included 500 still on Pevensy Levels, 400 at Arlington Res. and 300 at Sidlesham Ferry. Pulborough Brooks hosted an impressive 3000 on 23 Nov. Numbers remained high through to the end of the year with up to 1700 around Pagham Hbr during late Nov. and early Dec., 1000 on the Upper Adur Levels on 18 Dec. and finally 600 at Hurst Green on 31 Dec.

1200. **SONG THRUSH** (*T. philomelos*). **Regular breeding resident, winter visitor and passage migrant.**

Counts of breeding birds included 13 at Hollingbury Camp, 9 in 45.3 ha at Grantley Farm, Maynards Green, 20 along the line of the Bluebell Railway, 6 pairs in 60 ha at Kingley Vale and 2 pairs at Rye Hbr SSSI. Typical Oct. counts were 68 at Sheepcote Valley, Brighton on 15th, 70 at Seaford Head on 23rd and 85 at Elms Farm, Icklesham on 29th. 40 at Hooe Level, Pevensy on 25 Dec. were mainly of the continental race.

1201. **REDWING** (*T. iliacus*). **Regular winter visitor and passage migrant.**

As with Fieldfare, numbers in the first half of the year were generally poor, with few reports of over 100. The largest numbers were 450 at Amberley Wild Brooks on 17 Jan. and 300 at Arlington Res. on 17 Mar. The last were 3 at Hollingbury Camp on 11 Apr. and the final sighting, at Stansted Forest, was as with Fieldfare, on 14 Apr.

The autumn commenced with an interesting report of 7 seen on a pelagic trip off Winchelsea Beach on the exceptionally early date of 26 Aug. Thereafter, there were sightings at Lancing Clump on 11 and 15 Sept., Hollingbury Camp on 18 Sept. and

Icklesham on 23 Sept., before a more general arrival during 24-25 Sept. which included 21 at Three Bridges on the latter date.

Again, as with Fieldfare, there was a large arrival on 14 Oct., with over 200 at Icklesham, 350 at Hastings, 500 at Sidlesham Ferry and 171 seen during a 5 hour seaway from Brighton Palace Pier. Next day, there were 2500 at Bewbush, Crawley, the largest number reported during the year. Small numbers were widely reported throughout late Oct. and Nov. In Dec., 1000 flew over Brighton Wild Park on 3rd, 400 were at Ifieldwood, near Crawley on 21 Dec., 400 were at Hurst Green on 31 Dec. and Pulborough Brooks recorded a maximum of 800.

1202. **MISTLE THRUSH** (*T. viscivorus*). **Regular breeding resident, passage migrant and winter visitor.**

Counts of breeding birds were 6 at Hollingbury Camp, 2 at Grantley Farm, Maynards Green, 4 pairs at Rye Hbr SSSI, one pair at Clapham Common, one pair in 60 ha at Kingley Vale and 1 pair bred just off the reserve at Woods Mill. Few other records were received for the breeding season. Numbers reported throughout the year included 14 at Cophorne Common on 27 Feb., 35 at Elms Farm, Icklesham on 5 Aug., 28 at Parham on 12 Aug., 20 at Warnham MP on 29 Oct. and 22 roosting at Brighton Cemetery on 7 Nov.

1220. **CETTI'S WARBLER** (*Cettia cetti*). **Annual scarce winter, passage and non-breeding summer visitor. Has bred in some recent years.**

At Icklesham, singles were seen on 4 dates in Jan., Feb. and May. Singles were ringed on 20 Sept. and 2 Oct. (RBRG), then one present throughout Oct. but 3 on 31st. A single was recorded in early Nov. and again on 13 Dec., and at least 2 on 14 Dec. Three were seen at Pulborough Brooks during Apr., May and Aug. One was present at Church Norton on 26 Sept. and 2 in the Littlehampton area in Oct. The species was recorded in 8 months of the year at Thorney Deep, where a juvenile female and 3 males were ringed during the period Aug-Nov. (GCMR,ETR,CBC). Another male trapped there in Aug. had been ringed the previous year. Three were recorded at Thorney Island on 18 June, at least 5 on 7 Sept. and 3 on 5 Nov. A pair was seen with 5 young in June at an undisclosed site.

1236. **GRASSHOPPER WARBLER** (*Locustella naevia*). **Regular breeding summer visitor but declining and passage migrant.**

First record of one at Climping-Littlehampton Gap on 12 Apr. followed by another at Durrington, Worthing on 18th, Shoreham Airport on 19th and Thorney Island on 20th. Singles were recorded at Coombe Haven, Rye Hbr and Seaford Head in late Apr. - early June. Two pairs bred at Pulborough Brooks, the first since 1990. Recorded at Icklesham from mid-July until 19 Oct., with a maximum of 27 on 3 Sept. and 10 ringed in late Sept. At Cissbury Ring 3 were ringed on 29 Aug. Another 16 records were received for Aug. and Sept. from Beachy Head area, Selsey Bill and Sheepcote Valley, Brighton.

1238. **SAVI'S WARBLER** (*L. luscinoides*). **Scarce/rare passage migrant.**

Five records, all of birds trapped at Icklesham. The first was a juvenile on 23 July, followed by a single on 2 Aug. Two were caught on 8 Aug., including a first-year bird. The final record was on 14 Aug. (all RBRG).

1242. **AQUATIC WARBLER** (*Acrocephalus paludicola*). **Rare autumn visitor.**

1973: Four juveniles were trapped at Filsham Reedbed, although supporting details were never submitted. One was on 13 Aug. and the others on 25th, 26th and 27 Aug. 1975: Two juveniles were trapped at Filsham Reedbed on 18 Sept. although supporting details were never submitted.

1990: A juvenile trapped at Elms Farm, Icklesham on 31 Aug. was retrapped on 1 Sept. while another trapped on 1 Sept. was incorrectly published as 3 Sept. (SxBR 43:51).

1991: Five juveniles were trapped at Elms Farm, Icklesham, although supporting details have not been submitted. Two were on 13 Aug. and singles on 25-26 Aug., 21 Sept. and 5-6 Oct. That in October is the latest county record since one at the Crumbles during 1-7 Oct. 1949.

1993: Three were trapped in the county, an adult at Charleston Reedbed on 14 Aug. (AMH, SP, TWP) and juveniles at Elms Farm, Icklesham on 20 and 25 Aug. (RBRG).

1243. SEDGE WARBLER (*A. schoenobanus*). Regular breeding summer visitor and passage migrant.

The first recorded for the year were on 3 Apr. with singles at Thorney Deepes and Church Norton. Singles appeared at numerous locations until 14th when 9 were at Elms Farm, Icklesham, 17 at Thorney SE Deepes and 32 at Thorney Deepes both on 20th, 12 at Church Norton on 21st and 49 at Elms Farm, Icklesham on 30th. On 15 May a minimum of 30 pairs were recorded during a breeding survey of Pevensey Levels and 30-40 pairs on 1 June. During June Rye Hbr SSSI recorded 42 breeding pairs, whilst Pulborough Brooks had 15 pairs nesting. Autumn passage was noted at Elms Farm, Icklesham with 50 on 1 July and 192 during counts in Sept. Charleston Reedbed trapped 109 during the autumn and Elms Farm, Icklesham ringed 36 during Oct. with the last record being on 10th. Beachy Head reported a very poor autumn with a total of 10 throughout the location. The last records were at Church Norton with one at Horses Field and one at Poplar Copse on 12 Oct.

1250. MARSH WARBLER (*A. palustris*). Scarce non-breeding summer visitor and passage migrant (rarest in autumn). Irregular breeder. Annually recorded since 1983.

A male was recorded near Pulborough from 4 June until at least 10 June (ASC *et al.*). Icklesham had an excellent season of ringing records involving 13 individuals from 3 July to 15 Aug. (RBRG). Breeding was proven at one site in Sussex.

1251. REED WARBLER (*A. scirpaceus*). Regular breeding summer visitor and passage migrant.

First record was a single at Glyne Gap, Bexhill on 14 Apr. and then at 18 other sites that month, including 10 at Shoreham Airport on 20th, 10 at North Stoke on 24th, 10 at Coombe Haven on 24th and 10 at Glyne Gap on 25th. Breeding birds were recorded during May/June at: Woods Mill 2 pairs, Glyne Gap Marsh 20 pairs, Pevensey Levels 50 pairs, Coombe Haven 25 pairs, Pulborough Brooks 6 pairs, Rye Hbr LNR 6 pairs at Beach Reserve and 51 pairs at Castle Water, whilst Elms Farm, Icklesham had 50 throughout the season.

Autumn passage started in July with two's and three's at 5 sites, with Aug. recording 15 at Whitbread Hollow, Beachy on 18th, and 9 at Lancing Clump. During Sept. Elms Farm, Icklesham recorded 171 on 6th, 110 on 7th and 38 on 8th, and during Oct. had ringing records of 63 on 8th, 21 on 9th and 35 on 10th. They also had the last record of the year, a single on 7 Nov.

1259. ICTERINE WARBLER (*Hippolais icterina*). Rare visitor, most in autumn.

1969: One was trapped at Hodcombe, Beachy Head on 3 Sept. although supporting details were never submitted.

1993: Two were recorded, one beside Pagham Harbour to north of Church Norton on 24 May (TJE) and one at Seaford Head on 11 Sept. (WJMS). The former was the 5th to be recorded in May and the latter takes the county total to 32.

1260. MELODIOS WARBLER (*H. polyglotta*). Rare visitor, most in autumn.

One at Littlehampton GC on 7-8 Aug. (ASC *et al.*) was the 38th to be recorded in the county, but the first to be found between Pagham Hbr and Beachy Head.

1262. DARTFORD WARBLER (*Sylvia undata*). Scarce winter visitor and passage migrant, mainly at coastal locations. Rare breeder on inland heaths, disappearing from the county after hard winters.

In the early part of the year 17 were reported from coastal areas, a great increase over past years. Breeding records too have increased due to a succession of mild winters with possibly 12 pairs on Ashdown Forest and a pair in each of two other localities. This is reflected in the rather larger number of birds reported in the autumn and winter up to the end of the year when probably more than 20 were seen in 12 localities from Fairlight west to Thorney Island, and inland on Ashdown Forest.

1265. SUBALPINE WARBLER (*S. cantillans*). Very rare vagrant.

An juvenile male in hedgerows at Sidlesham Key from 9-16 Oct. (NP-H, JVS *et al.*) has been accepted by *British Birds*. The three previous records were all in spring.

1274. LESSER WHITETHROAT (*S. curruca*). Regular breeding summer visitor and passage migrant.

First recorded on 13 Apr. at Seaford Head. 10 on 1 May in the Thorney Island area and 15 on 15 May at Seaford Head were the only spring reports in double figures. Observers at Brighton Wild Park and Woods Mill commented on low numbers. Breeding counts included 10 pairs at Seaford Head, 3 pairs at Hollingbury Camp, 3 pairs at Rye Hbr SSSI, 4 pairs at Pulborough Brooks and 4 pairs in the West Durrington - Highdown area.

Autumn passage was evident from 13 Aug. with 15 at Sompting Downs and 10 at Hove. Later in the month 50 were at Whitbread Hollow on 19 and 28 Aug. At Lancing Clump counts of 36 and 37 on 24 and 28 Aug. were notable and there were 43 at Seaford Head on 30 Aug. Sept. numbers were somewhat lower with the exception of 81 at Seaford Head on 11th in a large fall of warblers. The only other counts of 50 or more were at Pagham Hbr on 1st and at Beachy Head on 12th. Later in Sept. the highest number was 13 at Seaford Head on 25th. 7 birds were recorded in Oct. the last being 3 at Beachy Head on 16th. The last 3 years have produced rather low totals of this species on migration.

1275. WHITETHROAT (*S. communis*). Regular breeding summer visitor and passage migrant.

For a change the first report was from inland - on 9 Apr. at Devil's Dyke. The following day there was a multiple arrival along the coast. On 24th there were 29 at Seaford Head and 40 at Beachy Head, where there were 50 on 1 May with 60 there on 2nd. There were many breeding reports including 18 pairs at Seaford Head, 14 pairs at Rye Hbr SSSI, 16 pairs at Hollingbury Camp, 23 pairs at Sheepcote Valley, Brighton and 21 pairs at Bignor Down.

Early dispersal was noted at Pagham Hbr on 6 July with most sites not recording any numbers until early Aug. 60 at Whitbread Hollow and 49 at Sidlesham on 15 and 18 Aug. respectively were notable with 95 at Seaford Head on 29 Aug. the highest autumn count. Generally, as with some other species, a very quiet passage was experienced. More than usual were recorded in Oct. with 5 at Seaford Head on 3rd and 5 at Icklesham on 8th. Two very late birds were at Poling, near Arundel on 22nd and Icklesham on 30th.

1276. GARDEN WARBLER (*S. borin*). Regular breeding summer visitor and passage migrant.

The first was at Littlehampton on 12 Apr. with the next well inland at Bewl Water on 15th and Warmham LNR on 17th. Most areas do not receive their first Garden Warblers until late Apr. or early May and coastal localities were still reporting their first on 4 May. As is usual spring numbers were small and 6 at Seaford Head on 24 Apr. is noteworthy. Breeding counts from defined areas were 5 pairs on a woodland CBC of 12.1 ha at West Dean Woods and 2 pairs on 45.3 ha of farmland at Maynards

Green. In addition 3 pairs were in 15 ha at Rusper and 6 pairs at Pulborough Brooks. Early movement was shown by 25 at Icklesham on 31 July with 40 there on 4 and 8 Aug. At Whitbread Hollow 30 or more were seen on 3 dates in Aug. from 15th to 28th. Icklesham again had 40 on 2 Sept. These were some of the lowest day totals on the Sussex coast yet the overall county ringing total (mainly of autumn migrants) was good, suggesting a regular and even movement this year. Double figures were not encountered after 12 Sept. Small numbers were seen until mid-Oct. with the last on 31st at Thorney Island, an exceptionally late date. Most unusually a leucistic bird was seen at Paghams Hbr on 14 Sept.

1277. BLACKCAP (*S. atricapilla*). Regular breeding summer visitor and passage migrant. Small numbers winter.

Observers responded well to the request in last year's SxBR to record the sex and give accurate grid references of winter observations. In Jan. and Feb. 24 different birds were recorded (10 males, 7 females) at 10 coastal and 8 inland sites. One observer in Bognor recorded 2 which were his first winter records there in 28 years. 5 at Combe Haven on 8 Apr. were probably migrants (? arriving or departing for the continent) and 11 at Seaford Head on 10 Apr. were most likely spring arrivals. The largest number was 16 at Climping on 12 Apr. Breeding records were received from 4 CBCs with 5 pairs in 12.1 ha of West Dean Woods, 7 pairs on 45.3 ha of farmland at Maynards Green (6 pairs in 1992) and 3 and 9 pairs on 2 woodland plots at Kingley Vale of 57.9 and 60 ha respectively, the former being yew-ash woodland. 14 singing males were censused at Hollingbury Camp (15 in 1991).

The very high total of more than 5000 was ringed during the autumn in the county. Although there were few large falls the autumn passage was good if unexciting. The largest numbers were 450 at Icklesham on 11 Sept. and 500 at Whitbread Hollow the following day. Icklesham recorded 9 other days with over 100 birds (including 300 on both 2 and 22 Sept.). Lancing Clump was the only other site with similar numbers (200 on 31 Aug. and 125 on 11 Sept.). These figures are not unusual and day totals of 1000 were recorded at Beachy Head in 1980 and 1984. As with 1992 Oct. counts were low with 71 ringed at Icklesham on 9th being the highest number. In Nov. there were 28 at 14 sites (8 coastal, 6 inland) with 7 at Icklesham on 8th. In Dec. 41 were recorded at 19 sites (11 coastal, 8 inland) including 6 in Brighton and 7 in Hastings. Of the Dec. total 10 were male and 13 female. In the two final months of the year at least 58 birds were in the county. Blackcaps were recorded as feeding on ivy berries (Storrington), holly berries (Hastings), *Mahonia* nectar and peanuts (Sharpthorne). One male in Slindon was recorded at a peanut feeder between 25 Dec. and 18 Mar. 1994. Birds were also recorded regularly in honeysuckle and cotoneaster.

1298. PALLAS'S WARBLER (*Phylloscopus proregulus*). Rare vagrant, mostly in late autumn.

One was seen at Pool Place, Atherington on 7 Nov. (RJLK). It is the 27th to be recorded in the county and the 3rd at Atherington.

1300. YELLOW-BROWED WARBLER (*P. inornatus*). Rare visitor, mostly in autumn.

Three were seen, singles at Atherington (RJLK et al.) and at Belle Tout, Beachy Head on 3 Oct. (BFF, RAI, DJS et al.) and one at Thorney Churchyard on 10 Oct. (CBC). Three is a slightly below average showing, the county total is now 67.

1308. WOOD WARBLER (*P. sibilatrix*). Regular but local breeding summer visitor and scarce passage migrant.

The first record on 17 Apr. at Tortington, Arundel was followed by 17 singletons on passage in coastal areas. There were 10 records of birds in suitable breeding localities.

The first return migration record is of one at Icklesham on 31 July, followed by 5 singletons in Aug. and early Sept. elsewhere, and 2 (the last) on 12 Sept. at Paghams.

1311. CHIFFCHAFF (*P. collybita*). Regular breeding summer visitor and passage migrant. Scarce winter visitor. Eastern races rare passage migrant and winter visitor.

In Jan. there were 36 at 23 sites and 18 at 12 sites in Feb. Records of mostly single birds continued until mid-March. A few notable spring records were of 6 in song at Gravetye Woods on 14 Mar. and 9 singing at Stansted Forest on 15th and 22 at Church Norton on 24th. Also 22 on 1 Apr. at Norton Poplar Copse and 17 at Seaford Head on 10 Apr. On 1 May Pulborough Brooks recorded its first 2 pairs nesting. A breeding survey on 15 May at Ashburnham Place, Battle revealed that 8 pairs had nested. There were 5 pairs at Seaford Head on 29 May and 11 pairs at Hollingbury Camp on 1 June.

The autumn migration total for Lancing Clump showed 98 in Aug. and 1296 for Sept. Between 26 Aug. and 10 Dec., 1091 were noted at Icklesham, 539 of those being ringed. 39 were trapped in Charleston Reedbed in the autumn. Sotomping Downs and Abbotts recorded 284 for Sept. Seaford Head recorded 233 and Beachy Head area 1160. Birds were recorded from 23 sites in Nov. and 20 sites in Dec. A bird showing the characteristics of *P. c. tristis* was seen at Hove on 27 Nov. (TJW).

1312. WILLOW WARBLER (*P. trochilus*). Regular breeding summer visitor and passage migrant.

The first record for the year was of a male singing on 4 Mar. at Duddeswell, Ashdown. There were 9 other sites where spring arrivals were noted in March. On 10 Apr., 20 were recorded at Beachy Head and 30 on 11 Apr. at Vert Wood. At Church Norton 52 were noted on 21 Apr. On 3 May Beachy Head had 40. Pulborough Brooks recorded 20 pairs that nested. Other breeding surveys revealed 20 singing males in 80 ha at Buchan Park on 9 May, 15 at Hollingbury Camp on 1 June and 9 at Reeves Wood in Battle on 1 June.

Autumn movement records at Icklesham involved 456 from 4 Aug. until the last on 16 Oct. when 2 were ringed. Whitbread Hollow had 175 on 31 July and a total of 235 on 15, 16 and 19 Aug. Sotomping Downs and Abbotts recorded 391 for Aug. Lancing Clump totalled 1053 in Aug and 153 in Sept. Seaford Head recorded a fall of 300 following heavy rain on 11 Sept. 187 were trapped at Charleston Reedbed during the autumn. Beachy Head recorded 187 throughout the autumn with the last date of 28 Oct. A bird with pale legs and no pumping tail was seen at Darwell Res. on 14 Nov. (RGH).

1314. GOLDCREST (*Regulus regulus*). Regular breeding resident and passage migrant.

Records were received from 38 sites across the county, covering all months of the year, with some breeding season survey counts.

Records for Jan-May were generally of small numbers. Darwell Res. had a maximum of 6 on 14 Feb. Mar. produced counts at Beachy Head of 12 on 14th, 8 on 21st and 6 on 27th; at Seaford Head 6 on 21st and 15 on 27th; and at Climping 5 on 28th. In Apr. 5 were noted at Church Norton on 1st, 2 at Icklesham on 2nd, one at Woods Mill on 4th, and 11 at Seaford Head and 6 at Beachy Head on 10th.

Probable breeding pairs noted in May and June were 2 at Seaford Head, 7 at Battle, 16 at Darwell Woods, 3 at Pulborough Brooks, 6 at Kingley Vale and singles at Storrington and Preston Park, Brighton. A flock of 20 including juveniles was seen at Broad Oak, Heathfield on 11 July.

In autumn, 83 were ringed at Icklesham between 30 Sept. and 16 Oct. At Seaford Head 21 arrived on 11 Sept. with a fall of Chiffchaffs. Peak counts for that month were 26 at Seaford Head on 25th, 20 at Beachy Head on 26th and 35 at Lancing on 29th. Although numbers increased in Oct. there were still no counts in more than

double figures, the largest being 31 at Beachy Head and 57 (ringed) at Icklesham on 10th, 52 at Brighton Wild Park on 13th, and 32 at Seaford Head on 23rd. Records in Nov. and Dec. were much fewer and of small numbers, the only double-figure counts being at Alexandra Park, Hastings of 24 on 20 Nov. and 21 on 27 Dec.

1315. **FIRECREST** (*R. ignicapillus*). **Regular passage migrant and winter visitor. Has bred.**

Present in average numbers in the early part of the year, followed by an above average spring and a below average autumn. The approximate monthly totals were:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
6	4	31	14	3	-	-	-	18	24	12	4

In Jan. singles were at Littlehampton GC and Sheepcote Valley, Brighton on 1st, Church Norton on 5th, Goddards Green on 17th (joined by a second on 20th) and Rye Hbr on 23rd. There were only 3 records in Feb: one at Church Norton on 6th, one at Climping on 9th and 2 at Brighton Cemetery on 22nd. Reports were received for dates throughout Mar. from 13 localities, mainly singles but with up to 5 at Pagham Hbr on dates between 13th-30th, Seaford Head between 5th-28th and Beachy Head between 14th-28th. April reports were 2 each at Church Norton on 1st and Littlehampton GC on 4th, 4 at Hope Gap, Seaford on 10th-12th and 2 at Seaford Head on 10th. The latter site reported a minimum of 14 different spring birds. Singles were present near Climping on 1st, 3rd and 9th, Sidlesham on 2nd, Woods Mill on 5th-7th, Hoove Level, Pevensey on 7th, Beachy Head on 10th and 12th and Barnsden, Ashdown on 19th.

The only May reports were of a male at Rye Hbr on 15th and a pair displaying at Chelwood Gate, Ashdown on 28th.

Autumn passage began in Sept. with one at Climping on 8th and 2 in that area on 9th. Two were at Church Norton on 12th, 4 at Beachy Head on 21st and 2 at Seaford Head on 27th. Singles were ringed at Icklesham on 12th and 13th, and other singles were reported from Lancing, Littlehampton GC, Icklesham, Church Norton and Beachy Head. Oct. had a similar spread of records, with 2 each at Church Norton on 7th, 12th and 13th, at Beachy Head on 10th, and at Hollingbury Camp on 30th. Singles were reported at Littlehampton GC, Icklesham, Beachy Head, Seaford Head, Hastings, Brighton Wild Park, Poling near Arundel, Angmering Park and Selsey Bill. Nov. records were 2 each at Brighton Cemetery on 5th and at Church Norton on 25th, with singles at Preston Park and Wild Park, Brighton, Newhaven, Seaford Head, Beachy Head and Icklesham.

The only Dec. records were one at Woods Mill on 1st, and 2 at Church Norton and one at Fairlight on 2nd.

1335. **SPOTTED FLYCATCHER** (*Muscicapa striata*). **Regular breeding summer visitor and passage migrant.**

The first bird recorded was at Icklesham on 23 Apr. Six singles were seen at Beachy Head between 2-3 May. Thereafter in May mainly singles were reported from a variety of sites with 3 at Seaford Head on 12 May being the highest tally.

Breeding was confirmed at a few sites. A pair raised 4 young at Littleworth, Partridge Green and a pair used a nestbox at Jarvis Brook near Crowborough. In all 13 pairs were reported but not all confirmed breeding. Pulborough Brooks had 3 pairs but few young.

Autumn passage started in Aug. with 6 noted at Parham on 12th. As the month progressed the counts increased with 30 at Lancing Clump on 21 Aug., 22 there on 25th and 21 on 30th. The final Aug. count for this site was 192. Sompington Downs and Abbotts recorded 46 for the month. At Hollingbury Camp between 13-23 Aug. the tally of 33 was considered poor by the local recorder. Woods Mill, Henfield had only one record in Sept. while 172 was the month's total at Lancing Clump. Overall it would not be considered a good year for this species. The last record was at Hastings on 14 Oct.

1343. **RED-BREASTED FLYCATCHER** (*Ficedula parva*). **Rare autumn vagrant.**

1973: One at Hodcombe, Beachy Head on 11-12 Oct. (RHC) was the 7th county record; there have now been 21.

1349. **PIED FLYCATCHER** (*F. hypoleuca*). **Regular passage migrant, has bred.**

Approximate monthly totals were as follows:

Apr.	May	June	July	Aug.	Sept.	Oct.
21	7	-	-	47	73	1

The first record was at Hove on 10 Apr. The spring records followed the usual pattern with comparatively high numbers in Apr. dropping off rapidly in May, followed by 2 blank months. There were 2 at Hollingbury Camp on 15 Apr. and 2 were seen there on 29th. A male and a female were at Three Corner Copse, Hove on 17 Apr. On 5 May a singing male was again at the unnamed site mentioned last year but once again there was no evidence of breeding (SxBR 45: 75). All the May records referred to single birds.

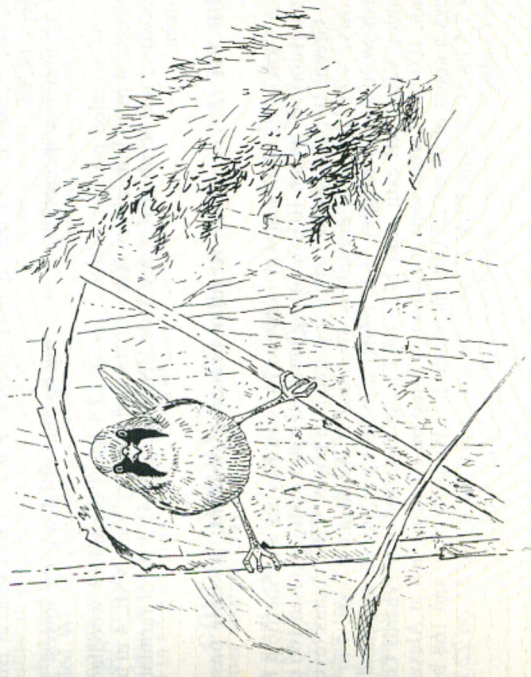
Returning birds were seen from 14 Aug. with a single at Sompington Brooks. Six were reported at the Severals, Church Norton on 20 Aug. and 3 were there on 29th. A warbler fall at Seaford Head on 11 Sept. included 4 Pied Flycatchers. While most of the sightings in Aug. tended to be in the western half of the county observations between Seaford Head and Icklesham increased during Sept. 15 were noted at Beachy Head and 5 were at Icklesham between 15-16 Sept. Church Norton saw the last record for the year on 2 Oct.

1364. **BEARDED TIT** (*Parus biarmicus*). **Regular winter visitor and passage migrant. Scarce summer visitor, has bred.**

The approximate monthly totals outside the breeding season were:

Jan.	Feb.	Mar.	Apr.	Sept.	Oct.	Nov.	Dec.
No. of sites	3	4	6	4	9	4	2
No. of birds	23	22	33	23	61	73	25

This species continued to do well, and at one site more than 40 young were raised. Breeding was proved at 2 other sites with 5 and at least 4 young raised.



1437. **LONG-TAILED TIT** (*Aegithalos caudatus*). **Regular breeding resident.** There were plentiful reports of birds early in the year, many in large groups, on 31 Jan. and 27 at Darwell Res. on 14 Feb.

Breeding surveys in defined areas found densities to vary from as high as 2 pairs in 16.1 ha in Barns Copse, Binsted and 3 pairs in 45.3 ha at Grantley Farm, Maynards Green to only one pair in 60 ha at Kingley Vale.

By the autumn it was clear that there had been a good breeding season with reports of many large family groups from all over the county, from both rural and built-up areas. Typical of these were flocks of 20 at Barnham on 3 July, 34 at Elms Farm, Icklesham on 16 Aug., 30 at Cissbury Ring on 22 Sept., 33 at Lancing Clump on 26 Sept., 36 in Bognor Regis on 20 Oct. and 27 at Darwell Res. on 14 Nov. Large flocks continued to be reported through to the end of the year.

1440. **MARSH TIT** (*Parus palustris*). **Regular breeding resident.** Reported in the breeding season from 21 widely scattered sites, and from a further 20 at each end of the year. Maxima were 6 at Ardingly Res. on 7 Jan., 6 at Cophorne Common on 29 May and 9 encountered during a 3 km walk at Coates Common on 1 Dec. A pair reared 6 young in a nestbox at Ardingly Res. At Weir Wood Res., a bird was retrapped on 22 Nov., more than 5 years after original capture at that site.

CBC counts revealed pairs as follows: 3 in 12.1 ha of deciduous woodland at Westdean Woods, 3 in 57.9 ha of yew/ash woodland at Kingley Vale NNR, a further 5 in 60 ha of mixed woodland and scrub at Kingley Vale NNR extn., and one in 45.3 ha of farmland at Maynards Green.

1442. **WILLOW TIT** (*P. montanus*). **Regular breeding resident.**

Reported from 24 localities throughout the year, mostly as singles or pairs. Maximum seen was 5 at Wepham Woods, Angmering on 26 Sept. The county ringing total of 7 was the lowest since at least 1979, from which time the annual average has exceeded 25.

1461. **COAL TIT** (*P. ater*). **Regular breeding resident, scarce passage migrant.** Maximum seen during the year was a flock of 20 at Stansted Forest on 4 Mar. One sighted at Climping Gap on 18 Feb. was considered unusual for the area. An individual showing characters of the continental race (*P. a. ater*) was seen at Birling Gap on 18 Sept. (RJF).

As with the previous species, the county ringing total of 64 was the lowest since 1979.

CBC counts revealed pairs as follows: one in 12.1 ha of deciduous woodland at Westdean Woods, 4 in 57.9 ha of yew/ash woodland at Kingley Vale NNR, 4 in 60 ha of mixed woodland and scrub at Kingley Vale NNR, and 2 in 45.3 ha of farmland at Maynards Green.

1462. **BLUE TIT** (*P. caeruleus*). **Regular breeding resident; possible passage migrant.**

Along the 8 km of Bluebell Railway between Horsted Keynes and Sheffield Park, 48 pairs held territory, of which 16 pairs using nestboxes successfully raised 166 pulli. At Plumpton Green, 10 pairs reared 104 young, again in boxes. CBC counts revealed pairs as follows: 4 in 12.1 ha of deciduous woodland at Westdean Woods, 4 in 57.9 ha of yew/ash woodland at Kingley Vale NNR, 2 in 60 ha of mixed woodland and scrub at Kingley Vale NNR extn., and 17 in 45.3 ha of farmland at Maynards Green. In the autumn, 100 birds were seen at Lancing Clump on 26 Sept., and at Alexandra Park, Hastings a count of 98 on 23 Oct. increased to 138 on 20 Nov. and 168 by 27 Dec. On the 7.5 ha of Hotham Park, Bognor the maximum count was 15 on 22 Nov. and at Coates Common, 25 were counted in a 3 km walk on 1 Dec.

At East Grinstead, 2 birds ringed in December 1988 were retrapped at the same site on 26 Nov., having eluded capture between times.

1464. **GREAT TIT** (*P. major*). **Regular breeding resident, scarce passage migrant and winter visitor.**

At Friars Gate, Ashdown, a 5 km walk on 13 Apr. produced 17 territories. Nestbox studies revealed 55 young from 8 pairs at Plumpton Green, and 193 from 27 pairs at Horsted Keynes. Along the Bluebell Railway between Horsted Keynes and Sheffield Park, 61 pairs were recorded in 8 km. CBC counts revealed pairs as follows: 11 in 12.1 ha of deciduous woodland at Westdean Woods, 12 in 57.9 ha of yew/ash woodland at Kingley Vale NNR, 11 in 60 ha of mixed woodland and scrub at Kingley Vale NNR extn., and 20 in 45.3 ha of farmland at Maynards Green.

On 26 Sept., 75 were seen at Lancing Clump (cf. Blue Tit), but at Alexandra Park, Hastings a maximum count of 31 occurred on 20 Nov., decreasing to 24 by 27 Dec. At Coates Common, 12 birds were counted in 3 km on 1 Dec. The melanistic bird seen at Bexhill in the autumn of 1992 reappeared on 19 Apr. and again on 14 Dec. Another occurred at Sharpthorne on 28 Nov. and 12 Dec.

1479. **NUTHATCH** (*Sitta europaea*). **Regular breeding resident.**

More records received, mostly from inland woods, but in autumn a few individuals were seen nearer the coast from Emsworth to Icklesham. In the early part of the year, the maximum noted was 5 at Ashburnham Place. A 5 km walk at Friars Gate produced 6 birds on 13 Apr., with 8 pairs located along the 8 km stretch of Bluebell Railway between Horsted Keynes and Sheffield Park in June. Six pairs bred in the 40 ha of Chelwood Vachery, where one female using a box had been ringed as a pullus at the same site in 1989. At Mounfield, one community-minded pair bred at the village hall.

CBC counts revealed pairs as follows: 3 in 12.1 ha of deciduous woodland at Westdean Woods, one in 57.9 ha of yew/ash woodland at Kingley Vale NNR, 3 in 60 ha of mixed woodland and scrub at Kingley Vale NNR, and 3 in 45.3 ha of farmland at Maynards Green.

1486. **TREECREPER** (*Certhia familiaris*). **Regular breeding resident.**

Early in the year, maxima at Bexhill were 3 in Cole Wood and 6 at Cockerels Wood, with another 4 seen at Darwell Res. Several records of singletons were submitted in summer/autumn, surprisingly from more coastal localities although it is probable that their presence at such places is more easily detected than in the heavily-wooded Weald. The species is notoriously difficult to locate in dense woodland if singing males do not readily co-operate.

CBC counts revealed pairs as follows: One in 12.1 ha of deciduous woodland at Westdean Woods, one in 60 ha of mixed woodland and scrub at Kingley Vale NNR, and 4 in 45.3 ha of farmland at Maynards Green.

1508. **GOLDEN ORIOLE** (*Oriolus oriolus*). **Scarce passage migrant and summer visitor. May have bred.**

A good year with 7 records. The first was a single at Hollingbury Camp on 10 May (MJH). A first-year male flew over Pagham Hbr on 24 May (TJE) and a single was recorded at Pulborough Brooks on 27 May. At least 2 birds (a probable first-year and adult male) were present at Beachy Head on 28 and 29 May (TWP *et al.*). An immature male was seen at Thorney Island on 11 June (CBC) and another was at Pett Level on 19 June (CHD).

1515. RED-BACKED SHRIKE (*Lanius collurio*). Regular autumn passage migrant and scarce summer visitor, has bred.

An impressive total of 4 birds were recorded in spring, but only one autumn record this year. An adult male was found at Beachy Head on 29 May (DC, JFC, RJF). An adult female was at Bexhill on 1 June (RBW) and a pair nearby at Coombe Haven on 4 and 5 June (CR, RBW). Also on 5 June, a female was seen at Ford railway station (RJLK). The last record was of a juvenile at Icklesham on 29 Aug. (IH, SR, TS).

1520. GREAT GREY SHRIKE (*L. excubitor*). Scarce winter visitor and scarce autumn passage migrant.

The long-staying bird in the Amberley Wild Brooks area remained until 21 Mar., paying a visit to Pulborough Brooks on 14 Feb. In the autumn, at least one bird was present in Ashdown Forest from 16 Oct. to the end of the year, with a bird recorded at Weir Wood Res. on 19 Dec.

1523. WOODCHAT SHRIKE (*L. senator*). Rare visitor.

Two adults were seen in the west of the county in June, one at Church Norton on 7th (IVM-S) and one on the old Pontins site adjoining Grafton Road at Selsey Bill on 25th (GC, IMC *et al.*). Forty have now been recorded in the county of which 25 have been in May or June.

1539. JAY (*Garrulus glandarius*). Regular breeding resident, scarce passage migrant, scarce winter visitor.

Recorded throughout the year at Darwell Res. with a maximum count of 14 on 23 June. Surveys and counts produced the following numbers of pairs in the breeding season: Westdean Woods 1, Kingley Vale 2, Pulborough Brooks 3, Hollingbury Camp 2, Maynards Green 3 and Willington 1. Most autumn and winter records were in single figures, but Glynde had 11 on 26 Sept., Icklesham over 30 on 2 Oct., Beachy Head 15 on 3 Oct. and 10 on 10 Dec., and Church Norton 10 on 19 Oct.

1549. MAGPIE (*Pica pica*). Regular breeding resident.

A roost at Brighton Wild Park on 8 Feb. totalled 112. 31 were counted at Southwick Hill on 20 Mar. and 22 including juveniles on 22 June. Breeding season records were received from 5 other sites only, including a count of 40 at Hollingbury Camp in June. Maximum autumn and winter counts were 15 at Whitbread Hollow, Beachy Head on 5 Sept. (about half the usual number), 15 at Warnham MP on 17 Dec., 24 at Rye Hbr on 14 Sept., 40 at Ifield on 24 Oct. and 28 at Climping on 25 Dec.

1560. JACKDAW (*Corvus monedula*). Regular breeding resident.

Jan. counts included 4000 at Jevington, 266 at Darwell Res. and 150 at Findon. 188 were seen flying in to Coombe Haven at dusk on 16 Feb. 80 were present at Offham near Lewes on 7 Feb. and 70 at the Shoreham Sanctuary on 10 Mar. 20 nestboxes were occupied at Horsted Keynes. 250 were present at Knepp Castle, West Grinstead on 22 July.

In the autumn, 420 were counted at South Stoke, Arundel on 16 Oct., 135 at Yapton on 28 Oct. and 200 at Darwell Res. on 14 Nov. 300 were recorded at Pett Level on 31 Dec.

1563. ROOK (*C. frugilegus*). Regular breeding resident.

Early in the year flocks noted were 500 at Findon on 12 Jan., 161 at Darwell Res. on 24 Jan. and 300 at Seaford Head on 4 Mar. Counts of nests in defined areas were as follows: Arundel 25, East Chilmington 53, Plumpton 167 (5 sites), Eitchingham 16, Robertsbridge 38, Arlington Res. 50, Henfield 30 and in the Chichester area. West

Wittering 26 (3 sites), Selsey 15 (2 sites), Sidlesham 91 (3 sites), Hunston 26 (2 sites), Runcton 84 (4 sites) and Ivy Lake GP 29 (2 sites). From Sept. onwards flocks counted were: 200 at Pulborough Brooks on 15 Sept., 100 at Horse Eye Level, Pevensey on 4 Oct., 300 at Down Level, Pevensey on 2 Nov., 200 at Darwell Res. on 14 Nov., 279 at Yapton on 20 Nov. and 700 at Lavington Common on 27 Dec. 1500 were observed at dusk at Marlfire Wood, Hastings on 19 Nov.

1567. CARRION CROW (*C. corone*). Regular breeding resident.

There were 2 records of Hooded Crows (*C. c. cornix*): one flying E at Glyne Gap, Bexhill on 13 Mar. and one at Selsey Bill on 10 Apr.

Notable concentrations were 123 on 31 Jan., 181 on 2 Feb. and 400 on 12 Dec. at Coombe Haven, 92 at Goring Beach on 20 Mar., 90 at Climping on 8 Nov. and 110 at Hooe Level, Pevensey on 21 Dec.

Surveys in the breeding season produced the following counts of pairs: Westdean Woods 1, Kingley Vale 5, Pulborough Brooks RSPB 9, Hollingbury Camp 10 and Maynards Green 5.

1582. STARLING (*Sternus vulgaris*). Regular breeding resident, regular passage migrant and regular winter visitor.

On 9 Jan. a flock of 1000 was feeding at Danworth Farm, Hurstpierpoint and on 6 Feb. 2000 were at Horse Eye Level, Pevensey. On 7 Mar. flocks totalling 1150 birds migrated SE past Glyne Gap, Bexhill during a 15 minute period and on 11 Mar. 1100 migrants in sizeable flocks passed by Pevensey.

During the spring 38 breeding pairs were counted at Hollingbury Camp. At other defined areas there were 15 pairs in 45.3 ha at Grantley Farm, Maynards Green, but only 3 pairs in 67.5 ha at Marsh Farm, Binsted.

In the autumn 2800, were roosting in reedbeds at Thorney Deepes on 16 Aug. and 5000 were roosting at Rye LNR on 12 Nov. On 21 Dec. there were 3000 at Hooe Level, Pevensey.

Both breeding and winter flock numbers were markedly smaller than a few years ago.

1591. HOUSE SPARROW (*Passer domesticus*). Regular breeding resident.

Regular counts in 7 ha at Hotham Park gave a maximum number of 23 during the winter of 1992/3. 17 pairs were recorded in June at Hollingbury Camp. Autumn records were of a flock of 70 at Bewl Water in Sept. and a maximum of 37 from a 67.5 ha CBC plot at Yapton.

1598. TREE SPARROW (*P. montanus*). Regular winter visitor, regular passage migrant, regular breeding summer visitor.

In the first 3 months of the year, the largest reported flocks were 20 at Telham, near Crowhurst, and the same number at Waterlot Level, Pevensey.

Breeding was recorded again at Bewl Water, after an absence in 1992, and from Sidlesham and Rye Hbr where nestboxes are provided.

At least 12 individuals were ringed in early autumn at Icklesham, where a flock of more than 50 was seen on 13 Oct. Smaller flocks reported were 25 at Biring Gap on 16 Oct., 45 at Rye Hbr Wood on 31 Oct., 10 at Cuckmere on 4 Dec. and 28 at Winchelsea Beach SF on 21 Dec. The species was noted as being scarcer than ever at Climping.

1636. CHAFFINCH (*Fringilla coelebs*). Regular breeding resident, winter visitor and passage migrant.

At the beginning of the year, the largest flocks recorded were 210 at Seaford Head on 3 Jan. and 200 at Goodwood on 4 Apr. There was also a small winter roost of 40 at Shoreham Sanctuary.

Breeding records were received from the following CBC plots: 24 pairs on 45.3

ha of farmland at Maynards Green, 14 pairs in 12.1 ha at West Dean Woods and 30 pairs in 60 ha at Kingley Vale.

In Oct. passage movements were noted with 575 at Hollingbury Camp, 400 males flying W at Bewl Water and 650 W at Seaford Head. In the last two months of the year a flock at Stumbleholm Farm, Ifield reached a maximum of 300, and 111 were seen in Findon Village on 26 Dec.

1638. BRAMBLING (*F. montifringilla*). Regular winter visitor and passage migrant.

The approximate monthly totals, allowing for likely duplication, were as follows:

Jan.	Feb.	Mar.	Apr.	May	Sept.	Oct.	Nov.	Dec.
70	24	51	24	1	1	400	100	67

The largest flocks noted in the early months were 40 at East Dean on 15 Jan. and 25 at Shelley Farm, Pease Pottage on 14 Mar. Gatherings of 10-20 were often present in a field of rape stubble near Faygate during Jan-Apr. Few were seen at the coast in spring, a singing male at Belle Tout, Beachy Head on 12 May being the final observation.

In contrast, excellent numbers were recorded on autumn passage with counts at Beachy Head of 120 on 15 Oct. and 80 on 23rd. Elsewhere, there were 31 at Church Norton on 14 Oct. and 30 at Elms Farm, Icklesham on 26 Oct. Apart from 15 at Stansted Forest on 4 Nov. and 25 Dec., the only major concentrations reported in the latter part of the year were from Faygate where 48 were noted in linseed fields on 2 Dec., many of these remaining in the general vicinity into 1994. There were 3 at Weir Wood Res. on 29 Dec.

1640. SERIN (*Serinus serinus*). Scarce spring and autumn passage migrant and scarce summer visitor. Has bred.

Another good spring, with 7 individuals recorded. The first, a single at Selsey Bill on 3 Apr. (OM) followed by another flying over on 10 Apr. (BFF, MH, KM). A single flew over Brighton Marina on 25 Apr. (ADW, PJW). Two more flew over Selsey Bill on 11 May (TJE, OM *et al.*). An adult male was seen at Weir Wood Res. on 12 May (NAD). On 21 May a female (or first-summer male) was heard flying in and then watched for several hours at Selsey Bill (OM *et al.*). There was no evidence of breeding in the county.

1649. GREENFINCH (*Carduelis chloris*). Regular breeding resident, passage migrant and winter visitor.

At the beginning of the year, the only large flocks reported were 100 at Hamsey on 3 Jan. and 350 at Knepp Castle on 8th. A roost at Tilgate Park, Crawley held 120 on 28 Jan. and 50 on 11 Feb.

Counts of breeding pairs from defined areas included 3 in 12.1 ha at Westdean Woods, 28 at Hollingbury Camp and 2 on 45.3 ha of farmland at Maynards Green.

Several gatherings were noted on fields of linseed during late summer: 100 at Devil's Dyke on 18 July, 220 at Faygate on 17 Sept. and 290 at Knepp Castle on 20 Sept. As usual, sizeable flocks were recorded on the coast in autumn, with 94 at Littlehampton on 11 Oct. and a minimum of 300 at Paghham Hbr on 21st. The year ended with 200 at Hurstpierpoint on 27 Nov. and up to 100 at Stumbleholm Farm, near Ifield in Nov. and Dec.

A total of 455 birds were trapped at East Grinstead during the review period.

1653. GOLDFINCH (*C. carduelis*). Regular breeding summer visitor, passage migrant and winter visitor.

The monthly totals for the early part of the year were Jan. 162, Feb. 150, Mar. 136 and Apr. 25, from 7.6.6 and 4 localities respectively. The largest concentrations were 50 at Southwick Hill on 15 Jan. and 76 at Combe Haven on 13 Feb.

Little breeding data was submitted, a record of 2 territories in Crawley town centre being of note. At Hollingbury Camp, Brighton 5 singing males were counted on 1 June.

End of year totals were Sept. 1682, Oct. 4200, Nov. 1220 and Dec. 463, from 12, 15, 10 and 5 localities. The peak movements observed at coastal stations were 850 E at Seaford Head on 8 Oct., 745 at Church Norton on 27th and 600 at Beachy Head on 28th. Flocks in Dec. included 115 at Faygate on 6th, 63 at Filsham Reedbed on 12th, 180 at Rodmell Brooks on 16th and 97 at Weir Wood Res. on 29th.

1654. SISKIN (*C. spinus*). Regular winter visitor and passage migrant. Scarce summer visitor. Has bred.

Numbers were generally low during the first quarter, the monthly totals amounting to 352 in Jan., 246 in Feb. and 259 in Mar. The largest flocks recorded were 100 at Ardingly Res. on 6 Jan., 60 at Tilgate Park on 21 Jan., 60 at Rackham Woods on 28 Jan. and 61 at Rogate on 6 Mar. Few were observed in Apr.

This species retains its status as a scarce breeding bird in the county, although is undoubtedly overlooked to some degree. There were sightings of 1-2 individuals at four localities in late spring, with subsequent reports of juveniles at Tilgate Park and Wakehurst Place in July-Aug.

Autumn passage was exceptional, the first migrants being recorded at Sompting Downs on 5 Sept., with 60 at Worth Forest on 24th and 80 E at Seaford Head on 25th. A minimum of 3500 were noted in Oct. including 445 at Church Norton on 14th and 400 at Beachy Head on 15th. A total of 1440 moved W at Seaford Head between 23-28 Oct. Records for Nov. and Dec. amounted to 798 and 828 respectively, the more notable concentrations being 83 at Alexandra Park, Hastings on 20 Nov., 250 at Tilgate Park on 28 Nov., 90 at Ifield MP on 10 Dec. and 304 at Littlehampton GC on 25 Dec.

1660. LINNET (*C. cannabina*). Regular breeding resident, passage migrant and winter visitor.

During the early part of the year, the highest concentrations noted were 100 at East Dean on 15 Jan., 130 on rape stubble near Faygate on 27 Feb., 175 at Rodmell Brooks on 6 Mar. and 201 at Southwick Hill on 27 Mar. Spring migration included 700 at Church Norton on 1 Apr. and 607 E at Glyne Gap on 13th, with 244 E there on 15th. On 16 Apr., 100 were still present at the Faygate site.

The only breeding data received was of 8 pairs at Hollingbury Camp, a single pair in 60 ha at Kingley Vale, 8 pairs at Seaford Head and 4 pairs at Pulborough Brooks. A post-breeding flock of 100 was on Sompting Downs on 2 Aug.

As in 1992, good numbers were recorded in the autumn. During Sept. there were 800 as Rye Hbr on 3rd, 300 at Newick on 12th, 500 at Beachy Head on 25th and 400 W at Seaford Head on 26th. In Oct. there were 1000 at Selsey West Fields on 2nd, 1100 W at Seaford Head on 8th, 500 at Goring Gap on 24th and 700 at Beachy Head on 27th. Some high wintering populations were observed at the end of the year including 250 at Faygate, 300 at Goring Gap and up to 1000 at Rodmell Brooks, these figures perhaps indicating a genuine increase in numbers as a result of recent changes in agricultural policy.

1662. TWITE (*C. flavirostris*). Winter visitor and scarce passage migrant.

Another poor year for this species, with only 4 records received. 10 were reported from Thorney Deepes on 1 Jan. and 8 were present at Northport Pit, Rye on 9 Jan. At the end of the year, 70 with Linnets and Greenfinches on Thorney Airfield on 5 Oct. was a good count. A single was at Belle Tout on 25 Oct.

1663. **REDPOLL** (*C. flammea*). **Regular winter visitor and passage migrant; small numbers breed.**

Very few were reported in the first winter period, the sole large concentration being 110 at Greatham Common on 6 Mar., with flocks of c.30 noted at Bewl Water, Cophorne Common, Rackham Woods and Weir Wood Res. in Feb.-Mar. There were 50 at Old Lodge, Ashdown on 4 Apr.

Breeding season records amounted to approximately 10 pairs with sightings from Ambersham Common, Buchan Park, Tilgate Park, Worth Forest and several localities in Ashdown Forest.

Autumn coastal movements were unexceptional apart from a regular gathering of 100-150 at Elms Farm, Icklesham in Oct. which briefly increased to 300 on 28th. The respective county totals for Nov. and Dec. were 287 from 10 localities and 132 from 7 localities, including 80 at Holmbush Forest on 19 Nov., 50 at White Vane Pond, Horsham on 22 Nov. and 60 at Weir Wood Res. on 15 Dec.

1666. **COMMON CROSSBILL** (*Loxia curvirostra*). **Regular winter visitor and passage migrant. Breeds irregularly.**

The monthly totals were:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	3	13	2	12	20	9	49	82	30	211	92

Widely reported from 14 inland localities and one coastal in the W. and 14 inland and 3 coastal in the E. The small numbers present in the county up to July resulted in indications of breeding from 5 of the western commons and 2 sites in the E.

An influx in mid-Aug. gathered momentum in Sept. with 24 at Balcombe on 9th and 20 at Worth Forest on 24th. A much larger invasion occurred in Nov., with 21 at Stansted Forest on 4th, 24 at Worth Forest on 6th, 16 at Fairlight and 18 at Ashdown Forest on 7th, 15 at St. Leonards Forest on 24th and culminated with 56 in the Worth Forest area on 30th. During Dec. 32 were seen at Buchan Park on 10th, 25 at Balcombe on 17th and 35 at Stansted Forest on 25th.

1679. **COMMON ROSEFINCH** (*Carpodacus erythrinus*). **Rare, but increasing, vagrant.**

A female seen briefly above Whitbread Hollow, Beachy Head on 29 May (NJT) was only the 17th county record, although 8 have been during the last 5 years.

1710. **BULLFINCH** (*Pyrrhula pyrrhula*). **Regular breeding resident and winter visitor.**

There were scattered records from the early part of the year, including 16 at Cissbury on 6 Feb. Reports of breeding pairs were 3 at Hollingbury Camp, 3 in 12.1 ha at West Dean Woods, 4 in 45.3 ha at Maynards Green and 6 in 60 ha at Kingley Vale.

1717. **HAWFINCH** (*Coccothraustes coccothraustes*). **Regular breeding resident and scarce passage migrant.**

There were no breeding season reports, only 10 being recorded throughout the year as follows: 2 at Darwell Res. on 17 Jan., one at Ifield MP on 31 Jan., one at Pagham Hbr on 1 Oct., 2 at Weir Wood Res. on 22nd, one at Maynards Green on 30th, one at Selsey Westfields on 31st, and singles at Fairwarp, Ashdown on 6 Nov. and 1 Dec.

1847. **LAPLAND BUNTING** (*Calcarius lapponicus*). **Scarce/rare winter visitor and passage migrant.**

Singles were recorded on 18 Sept. at Seaford Head (PJ) and Fairlight quarry (CHD), another at the last locality on 3 Oct.(CHD), Rye Hbr on 7 Oct. (BJY) and Brighton Wild Park on 10 Oct. (PJW). At Icklesham a first-winter male and a first-

winter female were trapped on 15 Oct., one of these remaining until 18 Oct.

1850. **SNOW BUNTING** (*Plectrophenax nivalis*). **Regular winter visitor and scarce passage migrant.**

One was present at Widewater, Lancing from 4-15 Oct. The only other records were of singles at Cuckmere Haven on 24 Oct. and Rye Hbr on 25-26 Nov.

1857. **YELLOWHAMMER** (*Emberiza citrinella*). **Regular breeding resident.**

During the first quarter 15 flocks totalling 375 birds were recorded, the most notable being: 76 at Seaford Head on 1 Jan., dropping to 34 on 27 Mar., 40 at Jevington on 14 Jan., 31 at Coombe Haven on 31 Jan. and 40 at Ifield on 13 Mar.

Breeding season details were received of 99 pairs from 17 sites, including c.20 pairs in the Ashdown Forest area.

From 20 Sept. to the end of the year 14 flocks totalling 436 individuals were reported. The largest were 46 at Lancing Clump on 26 Sept., 80 at Seaford Head on 23 Oct., 25 at Icklesham on 28 Oct., rising to 50 on 31 Dec. and 42 at Ifield on 5 Nov., rising to 85 on 21 Dec.

1866. **ORTOLAN BUNTING** (*E. hortulana*). **Rare visitor, mainly in autumn.**

Two were recorded, an adult at Pagham Hbr Information Centre on 25-26 Aug. (TJE *et al.*) and one behind Hodcombe, Beachy Head on 18 Sept. (BFF, RAI, DIS *et al.*). A fairly typical showing, most records being from late Aug. to mid-Sept.

1877. **REED BUNTING** (*E. schoeniclus*). **Regular breeding resident, passage migrant and winter visitor.**

Counts during the first quarter revealed only 164 individuals from 15 localities, including 22 at Seaford Head on 1 Jan., 18 at Glyne Gap on 27 Jan., 20 at Manxey Levels, Pevensy on 20 Feb., rising to 40 on 7 Mar., and 50 throughout at Woods Mill.

An excellent submission of breeding season counts totalled 238 pairs from 25 areas. These included 18 pairs at Thorney Island, 20 pairs from 16 sites on Ashdown Forest, 18 pairs at Coombe Haven, a minimum of 100 pairs on Pevensy Levels (*cf.* 219 territories in 1987) and 33 pairs at Rye Hbr.

Between 24 Aug. and 5 Nov., well in excess of 500 birds moved through Elms Farm, Icklesham, with Oct. peaks of 300 on 7th, 250 on 16th and 80 on 28th. Elsewhere, 14 E at Church Norton on 19 Oct., a flock of 18 W at Seaford Head on 23 Oct., 11 at West Beach, Littlehampton on 7 Nov., 35 at Millbrook, Ashdown on 10 Dec. and 40 at Ifield on 21 Dec.

1878. **PALLAS'S REED BUNTING** (*E. pallasi*). **Extremely rare vagrant.**

1990: A first-winter male trapped at Elms Farm, Icklesham on 17 Oct. (DPB, JPM) has been accepted by *British Birds*. It is the first county record of this central and east Siberian species and only the third to be found in Britain (following records on Fair Isle in Sept-Oct. 1976 and Sept. 1981).

1882. **CORN BUNTING** (*Miliaria calandra*). **Regular breeding resident.**

The largest flocks reported in Jan. were 40 at Rye Hbr on 9th and 37 going to roost at East Deepes, Thorney on 17th, with counts in Feb. of 80 at Fishbourne and 300 at Steep Down, Lancing on 2nd, 97 at Rye Hbr on 5th, 45 roosting near Woodingdean on 6th and 40 at Mile Oak on 24th. 9 singing males were noted at Southwick Hill on 31 Jan.

1993 was the first of a two-year Society breeding survey of this species and the results from this, together with additional records received, gave a total of 638 males holding territories in 236 one-kilometre squares. These were restricted to the Downs and the coastal plains, with numbers concentrated near West Wittering (38) and South

Mundham (21) and in the following downland areas: Wepham Down (13), Chantry Hill (18), Steep Down, Lancing (51), Falmer (20) and Plumpton Plain (21). From the evidence so far it appears that the national decline in breeding numbers is reflected in the Sussex population. The survey results will be a valuable baseline for the future.

In the autumn, Beachy Head had 50 on 1 Aug., Sheepcote Valley, Brighton 150 on 30 Aug. and 94 on 18 Sept., and Southwick Hill 80 on 25 Sept. Singing males were noted as late as 7 Nov. at Beachy Head, where a winter flock of 70 was counted on the same day. Other winter records included, in Nov., 60 at Rye Hbr Wood on 26th and 153 near Newhaven on 28th; and in Dec., 40 at Icklesham on 10th and 11th, 50 at Rye Hbr on 18th and 48 near Woodingdean on 31st.

ESCAPES AND FERAL BIRDS

All records of *B.O.U. Category C species; of apparently feral individuals of other species, and of other probable or certain escapes from captivity, will be welcomed by the Hon. Recorder for this now annual feature. Notes on age/sex, plumage, behaviour submitted in the normal way but on separate recording forms from the main bulk of records.*

The following escaped or feral birds, other than those Category C species in the main list, were recorded in the county in 1993:

FLAMINGO SPECIES (*Phoenicopterus sp.*). A flamingo flew south down Findon Valley on 20 Sept.

BLACK SWAN (*Cygnus atratus*). One was at Thorney Deepes from 4 Jan. until 10 Feb. A single bird frequented Pulborough Brooks during Oct. and Nov. and probably the same bird was seen at Houghton on 25 Dec.

BAR-HEADED GOOSE (*Anser indicus*). One bird regularly at Pulborough Brooks with Canada Geese. One was at Scotney Court GP on 5 Jan. and another was at Arlington Res. on 8 Sept. One was seen regularly at Pulborough Brooks from 3 Oct. until the end of the year.

EMPEROR GOOSE (*A. canagicus*). Two were present at Weir Wood Res. from 25 Mar. until 18 July.

CACKLING GOOSE (*Branta canadensis minima*). This diminutive form of the Canada Goose was recorded at Rye on 9 Jan. (with Canada Geese) and at Battle on 6 Mar.

SNOW GOOSE (*A. caerulescens*). Three records, one at Darwell Res. on 17 Jan., one with Canada Geese at Pippingford Park, Ashdown on 22 May and one at Thorney Deepes on 3 Sept.

RUDDY SHELDUCK (*Tadorna ferruginea*). One was present at Pagham Hbr from at least 26 Jan. to 27 Mar. and, presumably the same bird, from 15 Oct. to 14 Dec. One was seen at Ternery Pool, Rye Hbr between 4-28 July.

WHITE-FACED WHISTLING DUCK (*Dendrocygna viduata*). A single bird at Thorney Deepes on 8 Apr.

WOOD DUCK (*Aix sponsa*). Two were recorded at Swanbourne Lake, Arundel on 19 Jan. with 3 there on 20 Feb. One was seen swimming on the River Cuckmere (upper valley) on 24 June.

COMB DUCK (*Sarkidiornis melanotos melanotos*). One at Gravetye Lakes on 16 Jan.

WHITE-CHEEKED (BAHAMA) PINTAIL (*Anas bahamensis*). One recorded at Brooklands, Worthing on 11 Jan.

HOTTENTOT TEAL (*A. punctata*). A single on the Knepp Estate on 5 Nov.

PUNA TEAL (*A. versicolor puna*). A single on Chichester GP on 6 Nov.

ROSYBILL (*Netta peposaca*). An individual of this species frequented Pulborough Brooks during Oct.

RINGED TEAL (*Calonetta leucophrys*). Pulborough Brooks had a pair present throughout Jan. and Feb. and they were also noted on 27 Mar. Two pairs were at the same location on 10 Apr. Two were at Sidlesham Ferry on 31 July and a male was present on 15 Aug.

SAKER FALCON (*Falco cherrug*). One of these regular falconers' birds was seen at Arundel WWT on 4 Oct.

BARBARY DOVE (*Streptopelia risoria*). A single bird recorded at Littlehampton Marina on 17 Apr.

COCKATIEL (*Nymphicus hollandicus*). One recorded at Coombe Haven on 7 Mar. was possibly that seen at Glyne Gap the following day. Singles were also seen at Swanbourne Lake, Arundel on 21 Apr., Littlehampton by-pass on 10 Aug., Sidlesham Ferry on 29 Aug. and at Baliffsourt, Clipping on 19 Sept.

PARAKEET (*Psittacula sp.*). One recorded at Pilsey on 12 Apr.

PEACOCK (COMMON PEAFOWL) (*Pavo cristatus*). A peahen was seen in a garden at Partridge Green on 5 May.

RED-BILLED QUELEA (*Quelea quelea*). One bird at Selsey Bill on 7 June.

YELLOW-FRONTED SERIN (YELLOW-EYED CANARY) (*Serinus mozambicus*). A bird of this species was found at Lancing Clump on 25 Sept.

RINGING IN SUSSEX IN 1993

by D. Crawley

This is my sixth annual review of ringing in Sussex. A total of 63,354 new birds were ringed during 1993. This takes the total for the period since 1979 to 510,796. My records go back no further than 1979. As in 1992, the number of species involved was 119. Not the same 119 species however. There were three new species for the county, bearing in mind the 1979 cut-off date. These were **Woodlark** (3), **Booted Warbler** (1) and **Lapland Bunting** (2). The Hippolais warbler is the first for Sussex but was one of at least 13 or 14 reported in Britain during autumn 1993. A number of these records are still subject to consideration by the British Birds Rareities Committee (BBRC) or SOS Records Committee (where applicable) and results had not been received at the time of going to press.

Other noteworthy species ringed during the year were **Garganey** (4), **Merlin** (1), **Quail** (1), **Spotted Crane** (1), **Nightjar** (2), **Wryneck** (1), **Bluethroat** (3), **Penduline Tit** (1), **Savi's Warbler** (2), **Aquatic Warbler** (3), **Marsh Warbler** (13), **Red-backed Shrike** (1) and **Crossbill** (2). This is the third shrike to have been trapped in the county since 1979. A Red-backed was ringed in 1981 and a Woodchat Shrike in 1982.

An exceptional number of **Mute Swans** (57) included 25 nestlings, while a total of 90 waders ringed included 12 **Jack Snipe** among the 6 species. The figure includes 42 **Lapwing**, 40 of which were chicks, maintaining the average of recent years.

For the first time since 1989 **Herring Gulls** (51) were ringed though the overall gull ringing effort remains in decline.

Successful **Barn Owl** breeding meant that 43 birds were ringed, the majority being pulli. The total included 5 fully-grown birds released into the wild from captivity. **Little Owl** (18), **Tawny Owl** (4) and **Long-eared Owl** (1) were also ringed. Unfortunately the Tawny Owl figure is the lowest since 1982.

More than 20,000 Hirundines of 3 species were ringed; **Sand Martin** (12,435), **Swallow** (5,482) and **House Martin** (2,141). This last figure is by the far the highest number of House Martins ringed in recent times. The dramatic increase came about as a result of trial and error experimentation at one trapping site incorporating tape-luring.

Only one **Yellow Wagtail** was ringed during the year. 'Alarmingly scarce' and 'extremely worrying' are two of the comments from the report of the Waterways Bird Survey 1992-1993 with regard to this species. There has been a continuing decline nationwide shown on both this survey and Common Bird Census surveys since 1980 (Marchant and Balmer, 1994).

Absent from the 1993 list is Ring Ouzel after at least 14 years of erratic trapping but **Song Thrush** (412) was a distinct improvement, perhaps indicating better fortunes for this species which has been locally in decline.

Cetti's Warbler is becoming a regular feature of the annual records. 1993 saw a record 7 ringed. Farlington R.G. operating in Sussex ringed 4 (a juvenile female and three males) and Rye Bay R.G. 3. Among the Sylvia warblers **Whitethroat** (692) showed a considerable drop over 1992. This decline is not reflected in the 1992-93 Waterways Bird Survey which showed a statistically significant increase in the population between 1992 and 1993 (Marchant and Balmer, 1994). **Garden Warbler** (903) maintained recent high totals and **Blackcap** (5,090) was an at least 15 year high. **Wintering Blackcaps** were ringed on 15 Feb. and 23 Nov. Firecrest (8) has continued a fall in the number trapped after the more successful years of the late 1980's.

37 Bearded Tits ringed on Thorney Island and 20 at Icklesham made an impressive showing for this species. Given continued mild winters we can expect to see these numbers kept up or increased.

Tree Sparrow (35) still gives cause for concern though the figure is up on 1992. **Linnet** (181) is the best year since 1989. **Goldfinches** (329) appeared to be more numerous with one ringer trapping 36 in his East Grinstead garden having ringed only 4 in the previous 15 years. The birds were present in the early spring. The same correspondent indicated fewer **Siskin** at this site and county-wide only 368 were ringed. At least 5 juvenile Siskins ringed in May in the general area of Marley Common strengthens the evidence that the species is breeding successfully in its northern outpost of West Sussex, if nowhere else in the county.

As always the changes in ringing figures for individual species from year to year must be treated with caution if only because ringing effort can vary so much from one year to the next. One factor that has been affecting this effort in recent years has been the cost of ringing. Most ringers support their activities from their own pockets. A top quality mist net now costs about £50; smaller birds cost 12p per ring, while those 57 Mute Swans would have cost £59.62. However special eagle rings are free!

A number of the following recoveries are reported without comment and are included as a matter of general interest.

SELECTED LIST OF RECOVERIES REPORTED IN 1992

Key to symbols and terms

	Age	Manner of Recovery
1	Pullus (nestling or chick not yet flying)	X Found dead
2	Year of hatching unknown	XF Found freshly dead/dying
3	Definitely hatched in current calendar year	+ Shot or intentionally killed by man
4	Hatched before current calendar year but exact year unknown	R Caught and released by ringer
5	Definitely hatched last calendar year	RR Not caught; ring or other mark read in field by ringer.
6	Hatched before last calendar year but exact year unknown	

Sex

m Male f Female J Juvenile

Gadwall
4163871 1 27.06.91 Schleswig-Holstein, GERMANY
R 23.01.93 Icklesham, Sussex

748km WSW 576 days

Teal
ER03419 4m 22.10.91 Icklesham, Sussex
+ 20.08.93 near Kalajoki, Vaasa, FINLAND

1994km NE 668 days

Garganey
ER70176 3m 05.08.93 Icklesham, Sussex
+ 02.09.93 Department Somme, FRANCE

88km SE 28 days

Sparrowhawk
DA55757 3m 17.08.93 Trimley St. Mary, Felixstowe, Suffolk
R 16.10.93 Icklesham, Sussex

124km SSW 60 days

The date of ringing suggests this is the normal dispersal of a newly independent young bird rather than a continental migrant.

Woodcock

EB25813 2 09.11.91 Beachy Head, Sussex
XF 05.04.93 Kalmár District, SWEDEN

1221km NNE 513 days

This bird was a road casualty. Upto and including 1991 22 British-ringed Woodcock had been recovered in Sweden. More than any other country (Mead and Clark, 1993).

Common Tern

X536297 1m 25.06.86 Chichester Gravel Pits, Sussex
R 09.06.93 Farmoor Reservoir, Oxon.

107km NNW 2541 days

Although adult Common Terns are usually faithful to their breeding sites from season to season it is known that first-time breeders will find other sites. This 7 year old bird has probably bred for the last 3 or 4 years and probably at this site (Cramp, 1985).

Barn Owl

GH74505 P 12.07.90 Broad Oak, Sussex
X 21.03.94 near Icklesham, Sussex

6km SE 1348 days

This 4 year old bird was found dead apparently hit by a motor vehicle. A sadly familiar story.

Pied Wagtail

H141310 3m 18.10.91 Icklesham, Sussex
R 01.04.93 Wilberfoss, Humberstone

351km NNW 531 days

H702836 3f 17.10.92 Icklesham, Sussex
R 01.04.93 Wilberfoss, Humberstone

351km NNW 166 days

Controlled at a roost in Humberstone on the same day, a year separates the ringing dates of these two birds. Pied Wagtails (*ssp. yarelli*) breeding in northern Britain are known to migrate southwards between August and November and return in late March and April. This is a particularly good illustration of the habit.

Duncock

E340493 3 27.09.91 Farsund, Vest-Agder, NORWAY
R 20.10.91 Icklesham, Sussex

885km SSW 23 days

This is the first north European Duncock to have been controlled at Icklesham. There is little evidence that large numbers of these migrating birds pass through eastern England but from personal conversations with Belgium ringers, I learned that they sometimes catch between 50 and 100 birds per morning session during the peak autumn migration period (Lack, 1986). I am unaware that such numbers are ever caught in Britain.

Robin
H703648 3 29.08.92 Icklesham, Sussex
V 13.01.93 Coana, Oviedo, SPAIN 994km SSW 137 days

This bird was found alive and released by a member of the public. Upto and including 1991, 245 British-ringed Robins have been recovered abroad. Most recoveries have come from France (92) the second highest (51) being from Spain (Mead and Clark, 1993).

Blackbird
RH26998 3f 14.10.91 Beachy Head, Eastbourne, Sussex
XF 18.03.93 Steenokkerzeel, Brabant, BELGIUM 300km E 521 days
hit glass window.

Grasshopper Warbler
H707817 3 18.08.92 Icklesham, Sussex
R 14.01.93 P.N.O. du Djoudj, SENEGAL 4123km SSW 149 days

These are the full details of the bird mentioned in my 1992 report. This is the first sub-Saharan record of a BTO ringed bird. Three have been recovered in France and one in Algeria in 1986 (Mead and Clark, 1993).

At the time of writing a total of 59 Sedge Warblers were controlled at Icklesham during 1993. Of these 45 were first-year birds (76%). A selection of the recoveries including the oldest and furthest travelled is shown below:

Sedge Warbler
E704595 3f 11.08.89 Warrington, Cheshire
R 04.08.93 Icklesham, Sussex 354km SE 1454 days
H352851 3 13.07.93 Strand Lough, Kiltough, Down
R 03.08.93 Icklesham, Sussex 365km SE 21 days
H353158 3 02.09.93 Strand Lough, Kiltough, Down, IRELAND
R 12.09.93 Icklesham, Sussex 565km SE 10 days
H765429 3j 26.07.93 Youghal, Cork, REPUBLIC OF IRELAND
R 02.08.93 Icklesham, Sussex 603km ESE 7 days
H901897 3j 03.08.93 Shannon Airport Lagoon, Clare, REPUBLIC OF IRELAND
R 10.08.93 Icklesham, Sussex 688km ESE 7 days
J254106 3j 27.07.93 Powgavie, Inchture, Tayside Region, SCOTLAND
R 08.08.93 Icklesham, Sussex 661km SSE 12 days
J353516 3j 04.08.93 Shannon Airport Lagoon, Clare, REPUBLIC OF IRELAND
R 10.08.93 Icklesham, Sussex 688km ESE 6 days

The Tayside bird was one of 4 first-year birds controlled within 12 days of ringing. All three of the birds ringed in the Irish Republic made rapid eastward progress.

Sedge Warbler
H143316 3j 01.08.91 Icklesham, Sussex
R 11.04.93 Priory Country Park, Bedford 156km NNW 619 days

This bird was an early arrival in 1993. The presence of a cloacal protuberance enabled the ringer to allocate a sex, suggesting it was preparing to breed at the control site.

Reed Warbler
E330428 4 20.08.93 Skrakilen, Onsoy, Ostfold, NORWAY
R 06.09.93 Icklesham, Sussex 1130km 17 days
F497123 3 26.08.89 Beachy Head 84km 1456 days
R 21.08.93 Thorney Island.

This is only the second Norwegian Reed Warbler trapped in our area. The first was controlled in Scotland in 1992. However there have been 6 records of Swedish ringed birds.

The second mentioned was trapped for the second time whilst on passage through the county.

Garden Warbler
CS10695 3 22.08.92 Aigen-Schlaegl near Rohrbach, Oberosterreich, AUSTRIA
R 28.09.92 Icklesham, Sussex 987km WNW 37 days

Details of this bird were not received in time for last year's report. This movement is described as unprecedented (Mead *et al.*, 1993).

Garden Warbler
H707772 3 18.08.92 Icklesham, Sussex
R 28.05.93 Fagbury, Trimley St.Mary, Suffolk 124km 283 days
H977852 3 01.10.92 Icklesham, Sussex
R 31.10.92 Fagbury, Trimley St.Mary, Suffolk 124km 30 days
H707817 3 18.08.92 Icklesham, Sussex
R 14.01.93 P.N.O. du Djoudj, SENEGAL 4125km SW 149 days

The first two birds were ringed at Icklesham on autumn passage. Bird number one returned the next year and was retrapped at the Suffolk coastal ringing site, near Felixstowe, on its spring return, while the second having been ringed in eastern Sussex moved NNE to the same site in Suffolk on its return journey to Africa in 1992. This would seem to be a new ringing site as the five reports involving it and Icklesham have all occurred during and since 1992. The 3rd mentioned is probably the 16th British-ringed Garden Warbler to be recovered south of the Sahara (Mead *et al.*, 1993)

Blackcap
J444237 3f 09.11.93 Icklesham, Sussex
X 25.11.93 Louth, Lincolnshire 278km N 16 days

This over-wintering bird had moved north quite rapidly and was found dead, apparently of natural causes.

Chiffchaff
8V5349 3 24.09.89 Beachy Head, Sussex
R 10.03.93 P.N.O. du Djoudj, Senegal 4093km SSW 1263 days

I mention this recovery out of respect for the age of the bird. Approaching 4 years is noteworthy. The longevity record for this species is about 6 years.

Bearded Tit
H439180 2f 26.09.91 Westbere, Kent
R 07.08.93 Thorney Island 154km 682 days

Ageing criteria for this species make it impossible to be certain of the year of birth after the finish of the complete moult that both adult and juvenile birds undertake in the summer. Therefore it would be pure speculation to suggest that his bird was born in Kent and subsequently moved to Thorney Island where it bred. It does seem likely.

Marsh Tit
C150033 3 24.03.84 Fairlight, Sussex
RR 23.12.93 Fairlight, Sussex 3561 days

This is the bird whose colour rings were read in the field and that I mentioned in SxBR No. 45, 1992 (Crawley, 1993).

Reed Bunting
IEB91831 3m 06.09.90 Heden, Karlstad, Varmland, SWEDEN
R 29.10.90 Icklesham, Sussex 1244km SW 53 days
IEE030262f 08.10.93 Svenska Hogarna, Stockholm, SWEDEN
R 07.11.93 Icklesham, Sussex 1522km SW 30 days
9K94735 3m 19.10.93 Stigsnaes, Skalskor, Sjælland, DENMARK
R 31.10.93 Icklesham, Sussex

The first of these three Scandinavian birds is a late record. All three show the movement of the species from areas where the cold winter weather cuts them off from their food supply. Some birds winter in Britain and others winter further south. The numbers wintering in Britain are not thought to be high (Lack, 1986).

I am indebted to all Sussex ringers who provided me with the records that form the basis of this report.

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SHELDUCK BREEDING SURVEY IN SUSSEX (1990-92)

by B. J. Yates and A. de Potier

INTRODUCTION

The Shelduck *Tadorna tadorna* is the easiest of ducks to identify and a most conspicuous species, but estimating breeding numbers is not easy. It has an interesting life history, of which the following details are relevant to a breeding survey:

- Adults first breed no earlier than their third calendar year, so that only just over half of the Shelducks present in spring breed (Yarker and Atkinson-Willes, 1972).
- Shelducks are strongly territorial and maintain feeding territories only if they have a nest nearby. The male defends the territory whilst the female incubates.
- Pairs may breed in colonies or solitarily.
- Eggs (8-10) are usually laid in a nest, in a burrow, in May or June.
- Young may gather in crèches of up to 100 and fly by August.
- Most adults depart by July to moulting areas (such as the extensive mudflats of the Heligoland Bight) where they become flightless during their complete autumn moult.

It follows, therefore, that a carefully timed count of birds on feeding territories will be strongly indicative of the number of pairs nesting in an area.

BREEDING RANGE AND POPULATION

The global breeding range extends from the west coast of Ireland to the western part of China and from Norway to north Africa, with most found between 40° and the 1970s and about 250,000 in 1980-81 (Batten *et al.*, 1990).

The British breeding population is distributed around most of the coast (concentrated around estuaries, but absent from some rocky shores) and increasingly inland. There was a decline in many parts of Britain and Ireland during the 19th century (attributed to persecution and habitat loss), and subsequent widespread increases can be seen as a recovery under protection given both in Britain and in the Heligoland Bight. There has been a gradual increase since the 1960's, with a growing tendency for birds to nest inland, away from traditional estuarine sites as these have

become full. From extrapolation of tetrad counts in 1988-91 there are estimated to be 44,200 Shelduck in Britain which translates to approximately 10,600 breeding pairs (Patterson, 1993).

THE HISTORY OF SHELDUCKS IN SUSSEX

The (re-)colonisation of south-west Sussex (after the 19th century decline) began in 1904, and by 1938 Walpole-Bond gave a figure of 500 pairs for that area. This was frequently quoted, but Shrubb (1979) considered it a "considerable over-estimate" and he could see no reason for the 80% decline to his estimate of 100-150 pairs (perhaps the over-estimate arose by including counts of non-breeding birds).

In south-east Sussex a pair nested from 1925, and in the Cuckmere Valley a pair nested from 1953 (des Forges and Harber, 1963). By 1931 the population was well established on the Sussex side of the county boundary in the Dungeness area (*Hastings and East Sussex Naturalist*, Vol. 4, p.156).

THE NATIONAL BREEDING SURVEY

The breeding population of Shelduck had not been accurately determined before The Wildfowl and Wetlands Trust organised a National Survey in 1992. In West Sussex this survey was co-ordinated by Anne de Potier and in East Sussex by Barry Yates, with both participating in the Pilot Surveys of 1990 and 1991 to refine methods for the National Survey.

THE PILOT SURVEY (1990-1991)

Shelduck were counted at 19 sites in Britain and Northern Ireland during the spring and summer of 1990, and at 18 of these sites, using adjusted methodology, in 1991. In Sussex there were two sites, Chichester Harbour and Rye Harbour.

The two pilot studies were valuable in designing the methodology to be used in the National Survey (see below). The main changes were:

- Trying to distinguish genuinely territorial pairs from non-breeding ones by behaviour.
- At tidal sites, the initial instructions to count on an afternoon low tide were relaxed because of viewing distance and heat haze.
- The period for counting ducklings was extended from a week to a month to encourage repeat counts.
- At tidal sites the duckling counts were changed from low to high tide.

Table 1. Results of the Pilot Survey 1990-91

	SPRING COUNTS		SUMMER COUNTS	
	Non breeders	Territorial males/pairs	Total	Juveniles
Rye Harbour SSSI				
1990	12	21	54	6
1991	47	13	73	26
Chichester Harbour**				
1990	700	152	1004	72
1991	375	228	831	153

** In 1991 the Chichester count was extended to include areas inland from the estuary.

THE NATIONAL SURVEY (1992)

The survey had the following aims:

- To produce a population estimate for the Shelduck in Britain during the breeding season, with the estimate, as far as possible, being broken down into the breeding and non-breeding components of the population.
- At a regional level, to quantify the relative importance of sites for the species in the breeding season.

DISCUSSION

The National Survey covered 1216 sites in 724 10km squares and found 44,700 adult Shelducks in Britain between late April and mid-May, with almost half of the population recorded in pairs. This total is just 500 more than that found by extrapolation from tetrad counts between 1988-91 for the New Atlas of Breeding Birds in Britain and Ireland. Provisional results of the second part of the survey revealed 12,883 juveniles in 2,371 broods (S.Delany pers.com.).

In Sussex 1099 adult Shelducks (2.5% of British total) were recorded, with 40% recorded as pairs. The 215 territorial males or pairs is considerably more than the 100-150 pairs estimated by Shrubbs (1979) and may represent a continued increase in numbers. However, it is clear from the Pilot Survey that the numbers of pairs and non-breeders at the two study sites in Sussex fluctuated between years with no apparent trend between sites. Within the county, one site, Chichester Harbour, contained 63% of the breeding population, two sites (adding Pagham Harbour) contained 77% and three sites (adding Rye Harbour) contained 84%. Breeding "inland" involved only 6% of the population, but isolated pairs may have been overlooked. With such a restricted breeding distribution it is important that the main sites are protected from catastrophic damage. Fortunately many pairs nest within Nature Reserves or other protected areas.

By early July there were only 242 juveniles found in Sussex, indicating overall productivity at 1.13 juveniles per pair (jpp = 242 juveniles / 215 pairs), which is comparable to the National figure of 1.2jpp. However, there was a great variation between sites, from 0 - 3.5jpp and a look at the Pilot Survey Results shows a great fluctuation between years at the two sites. In addition, at Rye Harbour LNR there is considerable annual variation in the recorded number of juveniles produced (ranging from 0 - 80) which does not seem to be linked with weather or the success of other ground nesting species (and therefore predators).

At all sites most adults had disappeared by the summer count, with only 250 (23%) remaining. At the three main sites there was a great variation in the proportion of adults remaining (to moult?): Pagham Harbour 41%, Chichester Harbour 21% and Rye Harbour just 10%. This trend appears to reflect the relative amount of undisturbed feeding area available, with Pagham being most favourable.

It is not known where most adults go to moult, but it is probable that they join most of the north-west European population, 100,000+, at the Heligoland Bight (Salomonsen, 1968).

SUMMARY

The two harbours of Chichester and Pagham remain the Sussex strongholds for breeding Shelduck, although there is a small population around Rye. There are scattered pairs along the rest of the coast and there is an increasing trend to nest inland. Of the 1099 adults found in spring there were only 215 pairs which each raised, on average, 1.13 juveniles. By July only 23% of the adults remained in the county, the majority had departed to unknown moulting areas.

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- c) To estimate breeding productivity by counting ducklings in the summer.
- d) To identify moulting sites and pre-moult concentrations.

METHODS

- To minimise under-estimation of numbers the following points were borne in mind:
 - a) Most birds have taken up territories by the beginning of May and counts in the first 10 days of May will minimise under-estimation due to nest failure or desertion (which may affect up to 50% of pairs).
 - b) At tidal sites, many feeding territories are covered at high tide, with the Shelducks moving inland to rest, so counting took place two hours either side of low tide.
 - c) Counting before mid-day was avoided because birds often occupied the nesting areas inland (forming so-called "parliaments") in the mornings.

From previous *Sussex Bird Reports* areas with Shelduck during the breeding season were identified by the regional organisers and, through the 10km. Stewards, fieldworkers were found and supplied with the national recording forms and instructions.

There were two parts to the survey:

- 1) Spring Counts to assess breeding numbers (25th April to 17th May). Shelduck were counted and sub-divided into: Total, territorial males, pairs, territorial pairs and non-breeding groups. Up to 2 repeat visits were encouraged.
- 2) Summer Counts to assess breeding success (27th June to 2nd August). This count provided an estimate of well-grown ducklings and of summering adults. Shelduck were counted and sub-divided into: Adults and young (noting crèche or brood size).

RESULTS

Table 2. Results of the Sussex part of the National Survey of Breeding Shelduck 1992

	SPRING COUNTS			SUMMER COUNTS		
	Non Breeders	Territorial Males or Pairs	Estimated Total Adults	Total Adults	Juveniles	
EAST SUSSEX						
Newhaven Tide Mills	1	2	5	0	0	
Pevensey Level	0	2	4	0	0	
Cuckmere Valley	6	4	14	5	13	
Rother Valley	0	3	6	?	?	
East Guldeford	0	8	16	0	3	
Rother Estuary	0	3	6	0	0	
Rye Harbour SSSI	21	15	51	5	19	
TOTAL	28	37	102	10	35	
WEST SUSSEX						
Chichester Harbour	482	136	754	161	137	
Pagham Harbour LNR125	30	30	185	72	63	
Shopwyke/Goodwood	18	0	18	0	0	
*Chingford Pond	0	2	4	2	7	
*Arun Valley North	7	6	19	4	0	
*Pulborough Brooks	9	4	17	1	0	
TOTAL	641	178	997	240	207	
GRAND TOTAL	669	215	1099	250	242	

* considered as "inland sites".

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- Dr Barry J. Yates, 2 Watch Cottages, Nook Beach, Winchelsea TN36 4LU
Anne de Potter, 6 Brook Gardens, Emsworth, Hants. PO10 7JY

DOWNLAND, SCRUB, AND BIRDS

by R. Levertov

The aim of this paper is to outline the habitat changes on the eastern South Downs in Sussex which followed the breakdown of their traditional use as sheepwalk. The invasion by pioneer scrub of what little semi-natural grassland that remained unploughed is described in detail, together with the effects on birds and other wildlife.

METHODS

The account is based on observations of the Downs around Brighton and Lewes between 1964 and 1989. During this period, some hill-sides changed from open grassland to impenetrable thicket, then finally became navigable once more as the scrub turned into virtual woodland. This enabled the whole process to be studied on the same patch of ground. The areas most regularly covered on foot or horseback were Ashcombe Bottom and Balmer Down, extending less often as far as the Offham escarpment, Mount Harry, Blackcap and Plumpton Plain; the Kingston Hill, Castle Hill and Newmarket Hill block of downland; and Moulsecoomb Wild Park, only the latter being less than 5 km from the coast. Casual visits were made to other areas including Cissbury, Mill Hill at Shoreham, Ditchling Beacon, Malling Down, Mount Caburn, Seaford Head, Lullington Heath and Beachy Head.

Much of the information about birds was gained from perhaps 1000 ringing sessions in the main area, spread over all seasons, between 1973 and 1989, and from taking part in various national and local censuses. Butterflies, moths and plants were monitored both privately and while working as a voluntary warden at Castle Hill NNR. As an eyewitness account of a historical event, this paper is inevitably subjective, and any opinions expressed are my own.

HISTORY

The original sheepwalk

Hudson (1923) writing at the turn of the 19th Century, paints an evocative and detailed picture. He stresses the contrast between the "great naked hills" of the eastern Downs: treeless, without fences or hedges - and the "wooded and partially cultivated Downs" west of the Adur.

However, even then, the eastern Downs were not entirely clothed in short turf close-cropped by sheep. There was some cultivation of the lower slopes for wheat, using oxen to pull the plough. Also, there were barren areas, often 20-30 acres or more in extent, on the summits and high slopes, where the original turf had once been destroyed by cultivation for a year or two during times when the price of wheat rose unusually high (Hudson mentions 1800 and around 1880). Even for as long as 25 years after such cultivations were abandoned, only a sparse and patchy cover of fine grasses and herbs had developed over the thin eroded soil and bleached flints. It was on these barrens, rather than on the turf of the sheepwalk, that Wheatears and Stone Curlews nested; curiously, Hudson laments the latter's recent decline to extinction in Sussex over 80 years before Prater(1986) does so.

Hardly any species nested on the close-cropped turf. Even Skylarks and Meadow Pipits needed the cover provided by rank clumps of tor-grass "which the sheep refuse to eat". Other breeding birds of the Downs were almost exclusively confined to gorse thickets. It seems that gorse was surprisingly common on the eastern Downs in 1900 - Hudson describes "acres of luxuriant furze", and constantly refers to rough places overgrown with furze and bramble. Elder and briar are mentioned less often, wild Clematis, honeysuckle and bryony only once. Significantly, there is no definite reference to hawthorn on the eastern Downs, though many for the Downs west of the Adur.

The agricultural changes

The basic farming system of the Downs, which had scarcely altered for centuries, collapsed almost within a decade. Arising from the economic straits and severe food shortages which followed the Second World War, the 1947 Agriculture Act offered lucrative grants for the ploughing of old grassland, plus high annual acreage payments

for growing barley. It was this that first caused the downland sheepwalks to be ploughed. Later, during the 1960s and 1970s, the tendency to concentrate on cereals was reinforced by a genuine world shortage of grain, especially after Western reserve stocks were sold very cheaply to the then USSR in 1972/3. Prices received by farmers trebled between harvest 1972 and harvest 1975, but their costs did not.

Technological advances, and the surplus profits to invest in them, went hand in hand: better and more powerful machinery to cope with steep slopes; new varieties of barley especially suited to the chalk, and more resistant to disease; better fertilisers, fungicides and herbicides, and more expertise in their use. This was the age of the barley barons. Virtually all the downland that could be ploughed, soon was. Quite a few farms went over entirely to cereals, and most others switched from sheep to cattle, which were kept on high-output ryegrass leys grown as breaks between sheep crops. The remaining, unploughable areas of old downland pasture, usually on the very steep slopes, were underused or abandoned altogether, sometimes isolated in a sea of barley and lacking easy access or a water supply.

The loss of sheep grazing on these relict areas was compounded by myxomatosis, introduced in 1954 and rampant by the following year. Very few rabbits survived its original outbreak. Their subsequent recovery has been only partial, the disease flaring up again as soon as rabbit populations reach a certain level. Once both kinds of grazing pressure are relaxed, pioneer scrub is quick to invade open turf. Even if grazing is subsequently increased, neither rabbits nor cattle and sheep can do more than delay the dominance of scrub if it has already got a hold. It is the seedling that is vulnerable: once the bush is about a foot high, thorny species such as hawthorn are well protected. Rabbits and livestock will ring-bark saplings when the turf is covered by snow, but the run of 11 consecutive mild winters 1965/6 to 1975/6 (Elkins, 1983) reduced even this degree of control. Also, store cattle were increasingly wintered inside large modern cattle yards, rather than on sheltered downland slopes.

Hand clearance of scrub was a traditional job for farmworkers when no more pressing task could be found for them. With a much-reduced labour force, and no real financial incentive to clear it, scrub was often left to develop. Indeed, some farmers tried to put it to use by creating semi-commercial pheasant shoots, as at Ashcombe Bottom, and Hogstrough Bottom, Standean. They were encouraged in this by the Game Conservancy, and by diversification schemes promoted by MAFF, especially in the boom years of the 1960s and 1970s.

However, not all downland is farmed. Certain areas owned by local authorities have been designated as public open space. Examples include Beachy Head and Moulsecomb Wild Park. Without any grazing except by rabbits, the growth of scrub has been especially rapid here, and little open space now remains.

Other areas are managed by conservation bodies as reserves. Owning no livestock, these organisations usually find it difficult to arrange suitable grazing. Often they are disinclined to graze hard enough and for long enough to control scrub, or to use ruthless measures such as burning, herbicides or heavy machinery to destroy it. Scrub has therefore increased at, for example, Castle Hill, Lullington Heath and Malling Down since they became reserves, in spite of a policy to control it.

THE SCRUB ITSELF

How scrub develops

The following is based on observations in the main study area, and as such it represents a non-botanist's interpretation.

Except for gorse, which may originally have been tolerated on the Downs as winter fodder, downland scrub is chiefly composed of species producing berries that are attractive to birds, which disperse the seeds to new areas in their droppings. In the total absence of grazing, seedlings may spring up anywhere on the open turf. More often, they develop within a gorse clump, which provides both shelter from the weather and protection from grazing. Song Thrushes on autumn passage especially act as dispersers, for they often roost in gorse after ingesting berries elsewhere.

However, gorse is a relatively short-lived perennial, individual plants surviving perhaps 10-15 years. Mature bushes are surprisingly vulnerable in severe winters: weight of snow splits main stems at the forks, and cold dry easterly winds kill or weaken older plants, sometimes over large areas, as happened at Castle Hill and the Cold Coombes nearby from late January to early March 1986. Moribund bushes and their roots are soon attacked by several types of fungi. When this happens, other species growing among the gorse may take over very quickly: within a couple of summers gorse can decline from almost complete dominance to just a minor component in more varied scrub. After this, the process is self-fuelled. The more varied scrub attracts more birds, which import more berries; soon, the scrub itself acts as a source of these. Existing bushes form a windbreak, shelter for less-hardy species to grow. As the scrub closes in, beginning to shade out the grasses, the area becomes less accessible and less attractive to grazing animals; eventually even the rabbits depart.

The speed of this progression, as well as the sort of scrub which eventually develops, depends on the individual site: its depth of soil, aspect, exposure to sun, wind and salt, and the amount of grazing. It may grow and spread almost perceptibly, or seem to change little in a decade.

Composition of the scrub

Besides gorse, hawthorn is nearly always present, together with elder, bramble and wild raspberry. Scrub of this rather limited type is found on the block of downland which includes Castle Hill NNR. It grows and spreads relatively slowly. As it ages, creepers such as black bryony, white bryony and woody nightshade may take hold.

At the other extreme are sites like Ashcombe Bottom. Here, perhaps because of deeper, more clay-like soils in a sheltered, south-facing dry valley system, diversity is very great. Hawthorn still dominates most slopes, but the scrub includes dogwood, wayfaring tree, spindle, sloe, wild privet and buckthorn, with sallow in the damper bottoms. Honeysuckle and traveller's joy are rampant. As at Moulsecomb Wild Park, oak saplings from acorns sown by Jays form part of the scrub, and will eventually supercede it. Ash, silver birch, and hazel from abandoned coppice, are also present. The spread and growth of this scrub is rapid, and its productivity at times amazing. On several occasions while walking through the scrub in June, a pattering sound has convinced me that it was starting to rain, in spite of the cloudless blue sky. The noise proved to be caused, not by raindrops, but by frass from innumerable caterpillars, falling onto lower leaves from the branches overhead. Over 230 species of the larger moths were recorded from the site without the use of light traps. Together with other invertebrates, they provided an abundant food source for birds. Often it was possible to examine 100 leaves of hawthorn, oak or hazel, chosen at random, without finding one which did not show insect damage.

Over-mature scrub

Fuller (1982) examined the succession from chalk grassland to scrub, and found that both species and numbers of birds increased as the scrub matured. This is true over a period lasting for many years, but not indefinitely. There comes a time when bird numbers begin to fall, often dramatically. Lack (1992) recognises this, and contrasts the 4 pairs of 4 species breeding in 1 ha of dense, leggy scrub in Wiltshire with the 21 pairs of 13 species in a similar area of younger and more open scrub.

Observations in the study area suggest that various stages in this deterioration can be recognised. One is the shading out of the last sizeable areas of rabbit-grazed turf, leading to the loss of active *Myrmica* ant-hills, of seed-producing herbs in the turf, and of the insects and spiders associated with them. Thus several important food sources disappear, especially for Green Woodpecker, Mistle Thrush and finches. As the scrub grows taller, nettles, willowherb and other ground vegetation is next to go, and raspberry is replaced by bramble, much less useful as its fruits ripen later in the autumn, not in July when inexperienced young birds need them. Eventually, even bramble may be shaded out, together with medium-height shrubs such as dogwood,

wayfaring tree and elder. As each is lost, so are the insects associated with it. The final stand becomes increasingly uniform in height and structure, and may comprise little more than hawthorn although it began as a much more varied mixture.

While these changes are taking place, there may be no obvious effect on birds as long as open grassland still remains to be colonised by new scrub. This can be seen in the remarkably stable numbers of territories of most of the species monitored by the Lullington Heath CBC during the period 1979-88 (Bowley, 1994). Territories of species such as Whitethroat shift slightly each year, following the band of new scrub of the preferred age. Only when all the grassland is invaded, and space for new scrub to form is gone, do the declines begin, and they may be dramatic. In Ashcombe Bottom, an area of varied scrub barely more than 1 ha in extent held 6 Nightingale territories in 1980, but by 1989 it contained just part of one territory, and fewer breeding warblers.

Such habitat deterioration may not be apparent from a casual glance. Viewed from a path, the scrub may appear scarcely altered, just slightly taller and denser. Often, it may be necessary to crawl into it to appreciate the real changes which have taken place. What seemed like a mass of luxuriant greenery may be nothing more than an empty shell. Inside, the scrub is a tangle of leafless stems, many dead and brittle, supporting the canopy. In the deep shade, there may be little or no ground vegetation, and no foliage at a suitable nesting height for warblers or Nightingales.

Table 1. Birds recorded in various categories of downland scrub in the Brighton and Lewes areas at different seasons

	Spring	Summer	Autumn	Winter	No. ringed 1979-88
Hen Harrier				1 o	-
Sparrowhawk	1-6 f	1-6 f	1-6 c	1-6 c	24
Kestrel	1,3 f	1,3 f	1,3 c	1,3 f	2
Merlin				1 s	-
Pheasant	3-6 c	3-6 cB	3-6 c	3-6 cR	NR
Woodcock	1-6 sP			1-6 fR	10
Woodpigeon	3-6 f	3-6 cB	3-6 c	3-6 f	17
Turtle Dove		3-5 fB			6
Cuckoo	1-3 sP	1-4 fB	1-3 oP		6
Little Owl	1-3 f	1-3 fB	1-3 f	1-3 f	11
Long-eared Owl	1-5 s	1-3 fB	1-5 s	1-5 o	4
Green Woodpecker	1,3 o	1,3 o	1,3 f	1,3 o	15
Tree Pipit			1,3 oP		1
Meadow Pipit	1 o	1 fB	1,3 o	1,3 s	14
Wren	1-5 f	1-5 cB	1-5 c	1-5 f	255
Duncock	1-4 c	1-4 cB	1-5 c	1-5 c	615
Robin	3-6 f,oP	3-6 fB	1-6 c,P	1-6 f	560
Nightingale*		3-4 fB			92
Black Redstart	1,3 sP		1,3 oP		6
Redstart	1,3 oP		1,3 fP		97
Whinchat	1 sP		1 fP		28
Stonechat	1 sP	1 sB	1,3 oP	1 s	9
Ring Ouzel*	1,3 oP		3 fP		106
Blackbird	1-6 c	1-6 cB	1-6 c	1-6 c,R	1518
Fieldfare	3-6 oP		3-6 c,P	3-6 c,R	212
Song Thrush	1-6 c	3-6 cB	1-6 c,P	1-6 c,R	857
Redwing	3-6 sP		3-6 c,P	3-6 c,R	331
Mistle Thrush	1,3,5 o	3,5 oB	1,3-6 f	3,5 o	7
Grasshopper Warbler		1 sB	1-3 oP		6
Sedge Warbler	1-3 sP		1-4 oP		15
Reed Warbler			3,4 oP		30

Lesser Whitethroat	3-5 oP	3,4 cB	3,4 cP	639
Whitethroat	1-4 oP	1-4 cB	1-4 cP	865
Garden Warbler		3,4 fB	3-5 cP	220
Blackcap	3-6 sP	3-5 oB	3-5 cP	1123
Chiffchaff	1-6 oP	4-6 oB	1-6 cP	318
Willow Warbler	1-6 oP	1-5 cB	1-6 cP	1227
Goldcrest	1-6 oP	3,4 oB	1-6 cP	NR
Firecrest	3-5 sP		3-5 oP	5
Spotted Flycatcher	3-5 oP	5 sB	3-5 fP	57
Pied Flycatcher	3-5 sP		3-5 oP	3
Long-tailed Tit	3-6 f	3-6 oB	3-6 c	279
Marsh Tit*	3-6 o	3-6 oB	3-6 f	95
Willow Tit*	3-6 o	3-6 oB	3-6 f	95
Coal Tit		3-6 sB	3-6 o	7
Blue Tit	3-6 f	3-6 oB	3-6 c	888
Great Tit	3-6 f	3-6 oB	3-6 c	540
Jay*	3-6 f	3-6 oB	3-6 f,oP	26
Magpie	3-6 c	3-6 cB	3-6 c	8
Carrion Crow	1-6 c	1-6 cB	1-6 c	-
Tree Sparrow	3-6 oR	3-5 fB	3-6 oR	38
Chaffinch	3-6 cR	3-6 cB	3-6 cR	385
Greenfinch	3-6 oR	3,4 sB	3-5 f	37
Goldfinch	1-4 o	1-4 sB	1-5 fP	40
Linnet	1-4 f	1-3 cB	1-3 c,R	149
Bullfinch	3-6 c	3-6 cB	3-6 c	381
Yellowhammer	1-4 c,R	1-3 cB	3-5 c,R	394
Reed Bunting		1-3 sP	1-3 s	7
Corn Bunting	1-3 fR	1-3 fB	1-3 fR	21

Key:

- 1 short, open scrub
- 2 short, dense scrub
- 3 mixed height, open scrub
- 4 mixed height, dense scrub
- 5 tall, open scrub
- 6 tall, dense scrub

P through passage seen or suspected

B breeds in scrub

R uses scrub mainly as a roost

s scarce or rare

o occasional

f frequent

c common

* local: absent from some areas

Note: the ringing totals are for birds netted in downland scrub more than 5 km from the coast. Except that larger species such as Kestrel, Magpie and Carrion Crow are harder to catch, the totals may be considered a fairly accurate reflection of relative abundance.

THE USE OF DOWNLAND SCRUB BY BIRDS

Table 1 sets out the use of different broad categories of scrub by birds at various seasons. It aims to show the general pattern, in the area and period of the study, rather than obscure this by including every eventuality of the 'partridge in a pear tree' kind. Thus partridges are excluded, as are other species more characteristic of open habitats, that may at times be seen in scrub: Skylark, Yellow Wagtail, Wheatear, Rook and Starling were among those noted. Also excluded are those preferring woodland proper, such as Tawny Owl, Great Spotted Woodpecker and Treecreeper, though the latter is often led into quite open scrub when following a mixed flock of tits. Collared Dove and House Sparrow were hardly ever seen in scrub away from buildings. Finally, the table excludes scarce migrants seen on three or fewer occasions: Buzzard, Corncrake, Nightjar, Wryneck, Wood Warbler, Red-backed Shrike and Hawfinch; and migrants temporarily grounded in scrub but which prefer other habitats: Moorhen,

Jack Snipe, Common Snipe, Brambling and Siskin were recorded. Swift and Swallows very occasionally roosted in it.

The breeding season

This is the period when birds are most strongly influenced by the age, structure and composition of the scrub – the more diverse it is, the more diverse the birds which use it. Hudson's "small breeding species characteristic of the furze-clad downs" (ca. 1899) were Corn Bunting, Yellowhammer, Whitethroat, Dunnock, Meadow Pipit, Stonechat and Whinchat (listed in that order) and also Linnet. Except that Whinchats no longer breed, and Stonechats are much less common, these are still the species most typical of the shortest and most patchy scrub. To them may be added the Grasshopper Warbler, though increasingly scarce, and the Little Owl, introduced since Hudson's day, which may nest in old rabbit burrows as the scrub provides no suitable tree holes.

Older, taller scrub holds more breeding species overall, but with the loss firstly of Meadow Pipit, then Stonechat and Corn Bunting; Linnet numbers are also reduced. Where the scrub is made up of little more than hawthorn and elder besides gorse and bramble, as in the Castle Hill area, the species gained are mainly ubiquitous ones like Willow Warblers, Blackbird, Song Thrush and Chaffinch, with the occasional pair of Willow Warblers. However, when Tree Sparrow numbers peaked in Sussex during the 1970s (Hughes and Dougherty, 1975) scrub of this type was colonised. Suitable holes being scarce or absent, Tree Sparrows built nests either inside the cup of disused Magpie nests, or in the foundations of active nests of that species and Carrion Crow. Surprisingly, the nestling Tree Sparrows often fledged successfully, but breeding ceased by 1980.

The richest and most varied scrub, like that described for Ashcombe Bottom, supports far more breeding species, most at higher densities. In some years, around 25 pairs of Lesser Whitethroats were present in 1 km² of scrub at that site, together with 10-15 estimated pairs of Garden Warblers. Between 10-16 singing male Nighthingales occurred annually in 80 ha of the scrub, though some first-summer males were thought to be unmated. Goldcrests nested in some years, using dense hanging skeins of traveller's joy in the absence of conifers. Marsh Tits and Willow Tits bred annually, 1-3 pairs of each, the latter having the crucial advantage of being able to excavate its own nest-hole like a woodpecker in dead elder trunks, rather than compete for the few natural holes. Shortage of these almost certainly limits the numbers of Blue Tits and Great Tits which can breed in downland scrub. Robins, too, rarely breed in scrub until it is old, again perhaps because of the lack of nest sites.

Reduced competition from these normally abundant species during the breeding season may partially explain the high densities of Willow Warblers, *Sylvia* warblers and Nighthingales that the scrub is able to support.

July – October

The bird population of downland scrub is now at its highest. Breeding pairs and their progeny are reinforced by large numbers of juvenile tits, warblers, Robins and other passerines which move into the scrub. Robins and juvenile Nighthingales are territorial, but most others join into large parties, occasionally up to 200 strong and made up of 15 to 20 species. Such mixed flocks form from the last days of June in some years, earlier than the period covered by Fisher's (1982) national study. Apart from adults among the Long-tailed Tits, which usually lead, almost all the birds are juveniles, at least during July. Many adult birds are in heavy wing moult at this time; some (Lesser Whitethroats and Willow Warblers especially) are barely able to fly. Rather surprisingly, juvenile Chaffinches are often a strong element in the flocks, among otherwise mainly insectivorous species. Blue Tits and Willow Warblers predominate, and, as juveniles but not as adults, share a somewhat similar green and yellow plumage. For these, and also Blackcaps, simple arithmetic often suggested that far more juveniles were involved than could have been fledged at the site, and ringing confirmed that some came from the Weald. Except when finding a bonanza such as a

swarming ants' nest, parties are constantly on the move, and often develop a fairly regular route and timetable for a week or two.

From late July, passage migrants from further afield join the mixed flocks. Sedge Warblers, Reed Warblers and Flycatchers may now be present; during September a Redstart or two may tag along. However, passage at inland scrub sites averages only a fifth or a tenth of that recorded at prime coastal locations such as Beachy Head (Edgar, 1986), and in some autumns warbler numbers actually fell after July as locally bred birds departed.

By joining a mixed flock, naive juveniles or grounded migrants are in effect taken on a tour of the best local feeding areas. They may stop off as the flock passes through preferred habitat. Wild raspberries are a great attraction (though not noted as such by Snow and Snow, 1988): as the earliest source of fruit they are especially valuable to juvenile Whitethroats. Later, elderberries are the *Sylvia* warblers' favourite. Redstarts set up temporary territories among scattered hawthorns growing among the shortest turf or bare soil, and drop down to take invertebrates from the ground. Spotted Flycatchers and Chiffchaffs choose wayfaring trees with over-ripe, fermenting berries – not for the fruit itself, but for the swarms of inebriated large flies which feed on it. Ring Ouzels regularly use some downland slopes, but not others (Leverson, 1993). The haw crop ripens in early October, and in good years large flocks of Redwing and Fieldfares exploit it.

Dispersion or passage of species which rarely move, and those that are partial migrants, is especially noticeable in downland scrub, whereas it could easily be overlooked in other habitats. The remarkable Jay movements of autumns 1975, 1981(SxBR) and 1983 were highly conspicuous, as was a movement of Coal Tits in 1977. A marked autumn passage of Song Thrushes (Leverson, 1986) and Robins, and the annual influx of wintering Blackbirds from the Continent, are likewise obvious in isolated scrubby coombes where normally few are present.

November to March

After October, the bird population of downland scrub tails off rapidly. Summer visitors have departed, and residents such as tits use the scrub less. The thrushes continue to flock to haws for as long as these last, often into December, but by the end of that month, especially if the weather is severe, the scrub may hold few birds by day. The small leaves of hawthorn do not make good leaf litter, and ringing showed that even some resident Wrens, Dunnocks, Robins and Blackbirds which had bred there tended to move closer to farmsteads or gardens, or into deciduous woodland, on lower ground up to 3 km away. Finches and buntings fed on stubble (if available) or elsewhere in the open fields, except when attracted to pheasant feeding stations. Marsh Tits and Willow Tits remain, probably taking seeds of *Clematis*, also Bullfinches, eating the pips from shrivelled blackberries. One of very few true winter visitors to downland scrub is the Woodcock.

However, the scrub is still important as a sheltered, secure night-time roost, and is used as such by Blackbirds and Song Thrushes which have spent the day in woodland or farmland, by Redwings and Fieldfares flying in from as far as the Weald or river levels, and by Chaffinches, Greenfinches, Yellowhammers and, more locally, Corn Buntings and Tree Sparrows from the fields. Such roosting accumulations are exploited by Sparrowhawks, and by Long-eared Owls, which take a sizeable proportion of birds in their diet (Leverson and Haskell, 1985).

Mortality and emigration continue to deplete the bird population of downland scrub during the early months. In March, after the departure of most winter visitors and before the arrival of summer ones, it may be almost deserted. It is perhaps because of this that the proportion of breeding warblers and Nighthingales is so high in sites like Ashcombe Bottom, migrants tending to occupy niches left vacant by resident species.

Spring passage

While autumn passage is such a feature of downland scrub, very little spring passage is seen in most years, especially away from the coast. The only large spring

fall, of 100+ Willow Warblers, was observed in April 1975; otherwise occasional spring sightings of Redstarts, Ring Ouzels, a Firecrest or a Pied Flycatcher may represent the only indisputable evidence of through passage, as opposed to the arrival on or near their territories of summer visitors which will breed locally.

DISCUSSION

The close-cropped sheepwalk of the South Downs, the flora and fauna it supported, and the way of life of the shepherds who worked there were described in almost mystical terms by Hudson (1923) and Barclay Willis (Payne and Pailthorpe, 1989). Present-day nostalgia, real or imagined, for this farming system and the landscape it produced can hardly be founded on its value for birds. Hudson makes it clear that almost nothing nested on the actual sheepwalk – not Wheatears, not Stone Curlews, scarcely even a Skylark. Except in places or years that grazing pressure was relaxed, it seems unlikely that the sheepwalk was ablaze with butterflies and orchids either, if an experiment with intensive summer sheep grazing at Castle Hill NNR in 1980 was any guide. Populations of all the blues crashed (Pollard, 1981), and every unprotected orchid spike was eaten or trampled.

By contrast, reduced grazing and the early years of scrub invasion may produce a blend of open turf and scrub of various ages, supporting a wonderfully rich assortment of wildlife. Ashcombe Bottom in the 1960s held bee orchids, glow-worms and Adonis blues in open turf, small pearl-bordered fritillaries, green hairstreaks, Grasshopper Warblers and harvest mice in the younger scrub, Nightingales, white admirals and dormice in the older scrub. If only it were possible to freeze the habitat at this stage – but it is not. Vegetation succession is remorseless, and it is hard to delay it even in a very small area by diligent 'conservation work'. Cutting back scrub above ground is merely pruning: the root system remains untouched. The Adonis blue was shaded out at Ashcombe Bottom in the 1970s.

Such losses might be tolerated if counterbalanced by equally important gains; unfortunately, this is not so. Even for the five or ten years when scrub is at its best, the birds (and Lepidoptera) which use it are relatively common ones both locally and nationally, and not confined as breeding species to chalk downland. Lesser Whitethroat, the closest candidate, has a British population conservatively estimated at 80,000 pairs, and is presently extending its range into Scotland (Wingfield Gibbons, Reid and Chapman, 1993). It is ironic that all three birds once associated with downland scrub in Sussex, and scarce enough nationally to merit active conservation of their habitat, ceased breeding on the South Downs during the very period that scrub was increasing. They are the Dartford Warbler, the Red-backed Shrike, and the Cirl Bunting (Walpole-Bond, 1938; des Forges and Harber, 1963; Shrubbs, 1979).

Because the best downland turf still supports several orchids, butterflies and insects such as the Warbiter cricket which are confined to the chalk and are rare enough in Britain to have Red Data Book status, there can be no valid argument for allowing scrub to invade and destroy their habitat, or against failing to clear it where still possible to rescue the turf beneath. There is less point in trying to remove scrub from areas where the turf, and the rare plants and insects it supports, has already been lost – or from areas where no rare species or interesting communities occurred in the first place. (Most prefer south-facing slopes, and are absent from those that face north.) In these situations, scrub may be the optimum habitat, though it will need to be managed as described by Lack (1992) to maintain its value. The importance of the yew woodland of the western Downs is well-known, but even hawthorn (so taken for granted in southern England) is sparse over much of Europe (Snow and Snow, 1988). In practice, successful hand clearance of scrub is almost impossible unless it is small and scattered enough to be pulled up by the roots. Usually, by the time the scrub is perceived as a problem, this is too late. Especially when not followed up with herbicides and grazing, cutting is merely coppicing. The subsequent regrowth seems not to provide as good a habitat as does the initial invasion of prime downland turf. A more ambitious approach would be to strip both scrub, roots and most of the topsoil

down to the bare chalk, on large areas of south-facing slope, using the appropriate heavy machinery. Within a decade or two, an excellent chalk downland community of plants and insects would begin to develop, as can be seen forming on various new road embankments and cuttings. In due course, pioneer scrub would start to invade. Likewise, I suggest it would be simple to recreate Hudson's "stony burrens" on the high downland tops, perhaps under some future set-aside scheme, and so reclaim the Stone Curlew as a Sussex breeding species.

SUMMARY

Agricultural changes after 1945 caused much of the sheepwalk of the South Downs in Sussex to be ploughed. Lack of grazing led to the invasion by pioneer scrub of what little downland turf remained. During a transitional period, the scrub plus turf creates an exceptionally rich habitat for wildlife, supporting far more birds than did the original sheepwalk. High densities of breeding *Sylvia* warblers are present. The berry crop is exploited during a strong autumn passage, but in winter the main use of scrub is as a roost. Once all the open turf is lost, together with the rare insects and plants it supports, the value of scrub even for birds diminishes as it ages and becomes more uniform in height and structure. It is suggested that only the most drastic conservation measures can be effective at restoring high quality chalk grassland once scrub has got a firm hold.

ACKNOWLEDGMENTS

My account of the agricultural changes is based heavily on information kindly supplied by M. Shrubbs (*in litt.*); this will be deposited in the Society's archives. Many people over the years have contributed to my understanding of downland scrub. This paper might not have been written without encouragement from the late S. W. M. Hughes, and would have been impossible without the privileged access granted me by various landowners, especially the late Mr. T. G. Rea and family, and Mr. D. West. R. D. M. Edgar made useful comments on the draft.

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by A. L. Bowley

INTRODUCTION

The succession from the flower-studded chalk downland of our forefathers to dense scrub, which has been described by Leverton (1994) is nowhere better illustrated than at Lullington Heath National Nature Reserve. Once this was part of the greatest tract of chalk heath and downland in England, an ancient landscape hacked from the wildwood by early Man and moulded by generations of sheep from Domesday to the second World War into miles of velvet sheepwalk.

After the war, the demise of sheep grazing and the plague of myxomatosis which killed off the rabbits allowed the encroachment of scrub to begin.

The profound changes in the populations of breeding birds that resulted were documented between 1964 and 1988 by Common Bird Census (CBC) surveys. The rate of increase or decrease of several species varied significantly from the national trends and this relationship is examined below, and related to vegetation change and management.

THE SITE

Lullington Heath lies on the South Downs high above the Cuckmere Valley, 10km north-west of Eastbourne, (site 18 on the Beachy inset map - see this Report). Covering 62ha, the reserve was established in 1956 to prevent afforestation of the chalk heath. It is owned by Eastbourne Water Co. and is leased and managed by English Nature.

Crossing the site from north-west to south-west is a broad spur of chalk, steep on its north face and with a gentle dip-slope to the south. This is covered with a slightly acid soil, where chalk herbs like salad burnet and dropwort rub shoulders with heathland flowers of heather, ling and woodsage - a chalk heath held in delicate balance by grazing. The absence of grazing after the war led to invasion by gorse which had more or less obliterated the chalk heath by the mid '70s.

To the east is a sloping field, farmed until the First World War, but now chalk/neutral grassland. To the west the land rises out of a deep winding valley - Old Kiln Bottom - over Iron-Age lynchets to a height of 150m. Here, deep loam soils are covered with tussocky grassland and scrub of hawthorn and wayfaring tree.

VEGETATION CHANGE

During the three decades from 1956-88 the change from open downland to dense scrub was at its most intense. By reference to aerial photographs and ground observation a detailed picture of the stages of change can be built up (see Figs. 1-3).

The site owners imposed considerable constraints on management because grazing near to the catchment was banned. This meant that for a period of over 20 years after the reserve was declared there was no grazing at all and very limited mowing. While the percentage cover of gorse only increased from 50% to 60% over this period, the height increased from 1m to over 4m with major consequences for nesting birds.

Clearance of scrub was begun in the early 1970s by the British Trust for Conservation Volunteers. By the end of the decade about a hectare had been cleared, but it was plain that any major clearance and removal of litter would be impossible by hand.

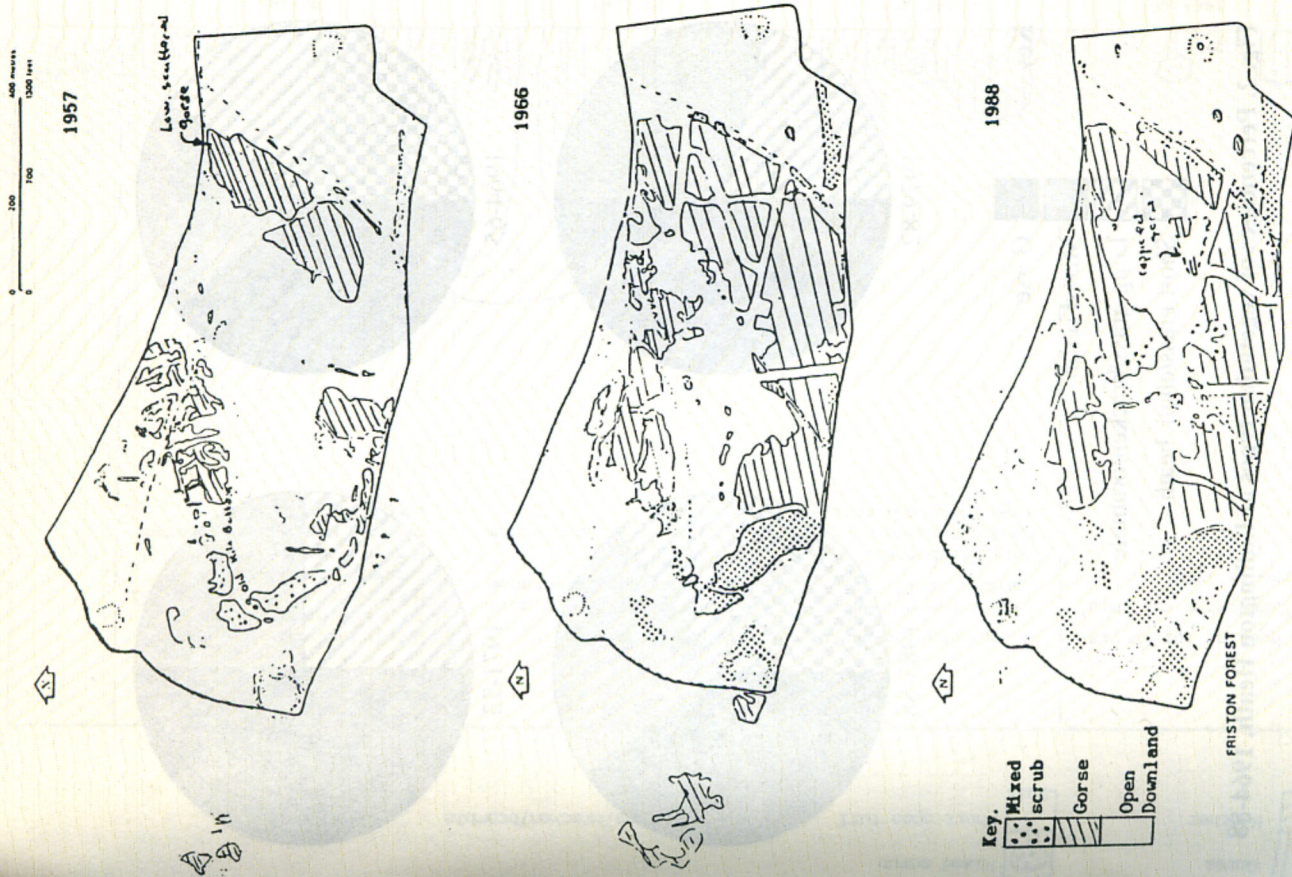
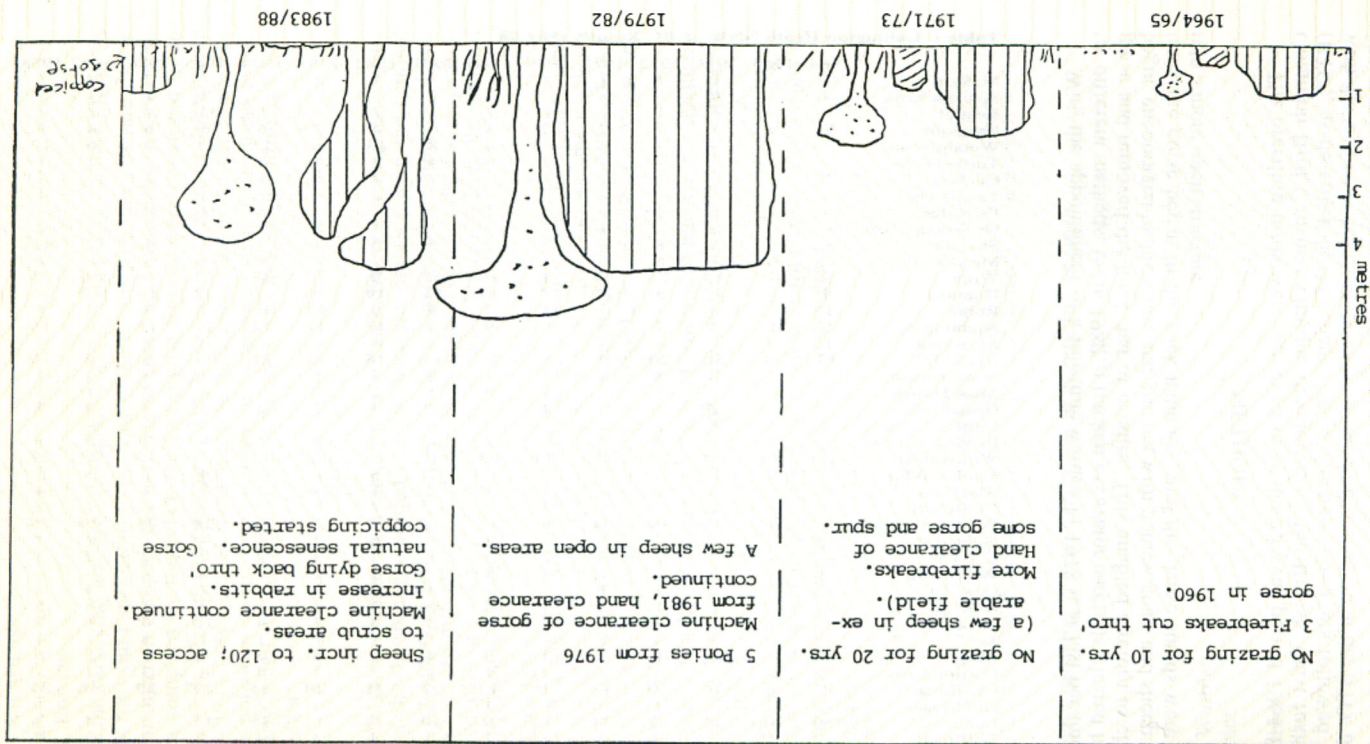






Fig. 1. Changes in vegetation cover at Lullington Heath, based on aerial photographs

Fig. 3. Changes in structure of vegetation at Lullington Heath 1964-88



MANAGEMENT

	Gorse
	Mixed scrub
	Short open turf
	Long grass/bracken/bramble

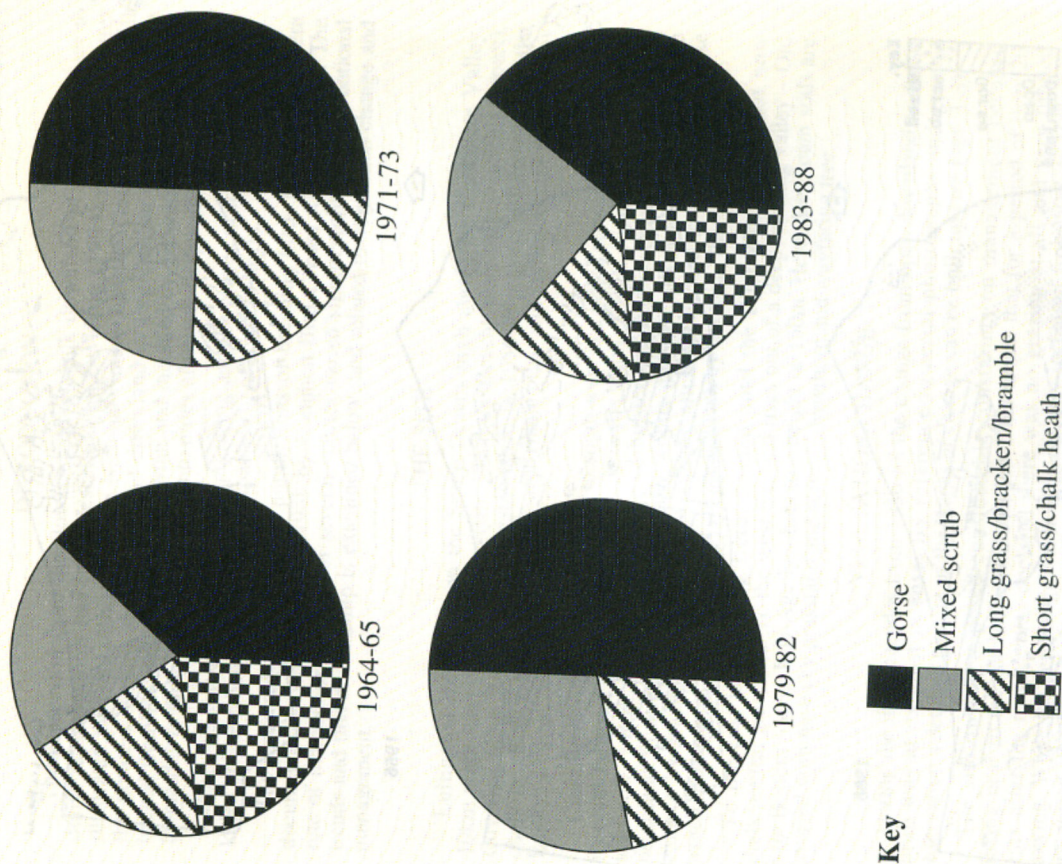


Fig. 2. Percentages of vegetation types at Lullington Heath, 1964-88

Song Thrush	+
Great Tit	+
Wren	+
Yellowhammer	+
Chaffinch	+
Bullfinch	+
Magpie	+
Decreases	
Skylark	+
Meadow Pipit	+
Whitethroat	+
Dartford Warbler	+
Linnet	+

Change in Period I/II

12 species were present in substantially greater numbers in 1971-73 than in the preceding period. Most were clearly responding to the increase in scrub of the right age and structure (Leverton, 1994), although Magpies were restricted to older hawthorns in Old Kiln Bottom.

Of the four species which declined, only one – Whitethroat – was correlated with a national fall, following the Sahel drought 1968/69 (Winstanley *et al.*, 1974). Linnet, Skylark and Meadow Pipit, on the other hand, declined at a much faster rate than nationally.

Change in Period III/III

Robin, Turtle Dove, Chaffinch, Nightingale, Woodpigeon and Magpie had all increased by the late 1970s, while Linnet and Skylark continued to decline. Dartford Warbler was absent by 1979 and Meadow Pipit was only recorded as an occasional visitor throughout the period.

Change in Period III/IV

During the second part of the 1980s, large-scale gorse clearance and intensified grazing and cutting of mixed scrub altered much of the nesting habitat. Despite this, several species continued to increase in contrast to the national trend, i.e. Magpie, Chaffinch, Blackcap and Bullfinch.

DISCUSSION

Species which were most affected by the vegetation changes are discussed below.

Increases

Robin

From single territories during the first two survey periods in the valley scrub, they spread along the valleys during the 1980s, utilising the ever-increasing scrub of optimum age and structure.

Chaffinch

With the exception of an unexplained drop in numbers in 1980, Chaffinches increased sequentially throughout the whole period, with significant gains in the 1980s. Numbers continued to rise to a maximum of 36 in 1987, making this the most numerous breeding species. Occasionally, nests were found in scattered hawthorns, but closed canopy scrub was preferred.

Decreases

Meadow Pipit and Dartford Warbler

These two are the only species actually lost from the reserve during the survey. Meadow Pits had declined by the early 1970s, territories becoming larger and fewer – reflecting the 'squeezing' effect of the scrub. From 1979, they were only recorded as accidentals.

Dartford Warblers are not indexed in the national CBC because they occur on so few plots, but were counted using CBC methods in periods 1 and 11 at Lullington, as well as using data from SOS files. A singing male was first recorded in 1960 and by 1964 a pair was established on the spur among scattered gorse and heather. This number rose to a maximum of 8 in 1972. SOS records indicate that a decline occurred throughout the 1970s as the habitat deteriorated, and even without the cold weather of 1978-79 the species was doomed to local extinction.

Skylark

After declining steadily from an estimated 15 pairs in 1964 to 3 in 1979, numbers appeared to be relatively stable during period IV, albeit at a relatively low level. Analysis of territories, however, shows that in contrast to a stabilising of the population, the decline continued. The apparently high numbers were due to edges of farmland territories masking the fact that only one pair was actually breeding on the reserve.

SUMMARY

In the 30 years following the myxomatosis outbreak of the early 1950s, the vegetation at Lullington Heath NNR changed from closely cropped downland and chalk heath with low scattered gorse to a dense cover of gorse and mixed scrub – a trend reversed only after 1978. The changes in breeding bird populations during part of this period (1964-88) were monitored using CBC techniques, and are analysed in relation to national CBC data.

Of the 42 species recorded on the CBC, 21 showed no variation from national trends. Of the remainder, long-term trends were identified for 8 species which were significantly different from the national picture, while 10 (including 4 already identified under long-term trends) showed major variation from national data within discrete survey periods.

ACKNOWLEDGEMENTS

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Alan L. Bowley, 13A Church Street, Holme, Cambridgeshire PE7 3PB

WING MEASUREMENTS AND MOVEMENTS OF COMMON GULLS RINGED IN SUSSEX IN RELATION TO THE ADDITION OF THE SUBSPECIES *Larus canus heinei* TO THE BRITISH LIST

by J. A. Newnham and A. B. Watson

INTRODUCTION

In the twentieth report of the Records Committee of the British Ornithologists' Union (BOU) a record of a Common Gull, trapped and ringed at Sompting refuse tip on 21 January 1987, has been accepted as belonging to the race *Larus canus heinei* (Ibis 136:253-255). Its acceptance, with others from Essex on 18 February 1984 and Kent on 31 January 1987, allows the addition of this subspecies to the British List. All three records were accepted after a detailed examination of measurements, wing length being the criterion for differentiation.

This brief paper outlines the results of trapping and ringing Common Gulls in Sussex to place the acceptance of the Sussex record of the subspecies *L.c.heinei* in context.

METHOD AND RESULTS

Between 1975 and 1993 Common Gulls have been caught during a programme of cannon netting and ringing gulls, previously described for Black-headed Gulls (Newnham, 1986). A total of 683 Common Gulls have been ringed and the majority (95%) were trapped either on the beaches between Ferring and Hove or at Sompting refuse tip. The last cannon netting at Sompting refuse tip was in December 1989 and since then only 35 Common Gulls have been ringed, all at Washington refuse tip. Table 1 shows that most Common Gulls have been caught between January and March.

Table 1. Number of trapping sessions and total number of Common Gulls caught in each month, 1975 - 1993

	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun
No. of sessions	1	2	4	10	16	24	27	32	23	0	0	0
No. of Common Gulls	0	2	0	7	32	27	202	297	116	0	0	0

The most useful measurement for determining race, as used by the BOU, is wing length. A "max. chord wing measurement", as described by Baker (1993), was recorded for nearly 70% of the Common Gulls trapped. The sample of 469 Common Gulls measured showed a range of wing lengths between 321 and 398 mm, with a mean of 361 mm and standard deviation of 10.6 mm.

The wing lengths include those examined by the BOU Committee and are shown in Fig. 1 with the ranges for the race *L.c.canus* and *L.c.heinei* as quoted in BWP 3:801 from a series of museum skins. This graph shows 72% of the measured wing lengths fall within the overlapping ranges of these sub-species and suggests, from the BWP series alone, that more than 20 individuals could belong to the race *heinei*. Other larger series of measurements considered by the BOU Records Committee reported the possible maximum wing length for the nominate *canus* to be 392 mm (Nyvit Mag. Zool. 14:85) and therefore only one Common Gull from the Sussex sample can safely be ascribed to *L.c.heinei*. Interestingly this individual (398 mm) is the only example exceeding 3 times the standard deviation from the mean yet the sample contains 4 small gulls with wing lengths considerably shorter than 3 standard deviations below the mean. All the larger Common Gulls with wing lengths greater than 385 mm were caught between 26 November and 11 March.

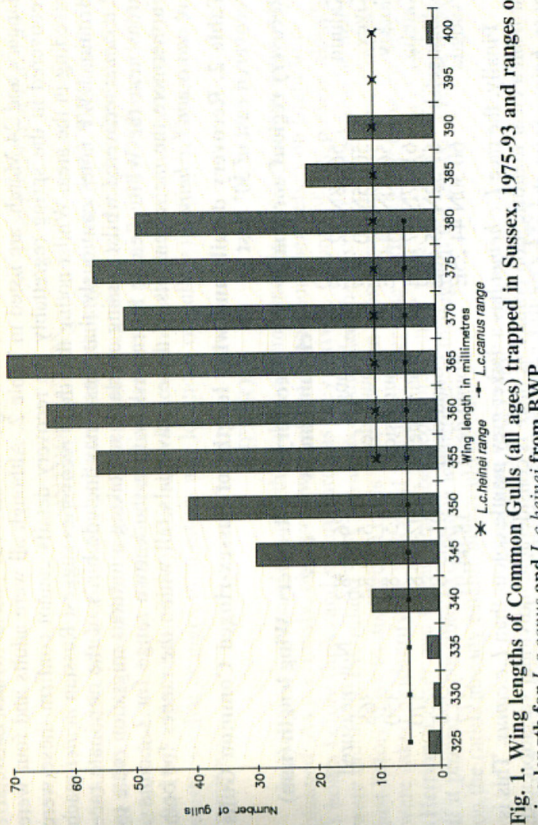


Fig. 1. Wing lengths of Common Gulls (all ages) trapped in Sussex, 1975-93 and ranges of wing length for *L.c.canus* and *L.c.heinei* from BWP

DISCUSSION

The breeding range for *L.c.heinei* is in central Russia as far west as the River Dvina eastwards to central and western Siberia (BWP). The ringing recoveries generated by this study also shed some light on the possible origins of Common Gulls wintering in Sussex. Indeed Mead and Hudson (1983) in the Report on Bird Ringing for 1982 considered the first Russian recovery from this study was atypically far to the east and together with three previous British recoveries from Novgorod, Vologda and Arkhangelsk suggested that some *L.c.heinei* reach Britain in winter. Figure 2 shows all the foreign movements of Common Gulls recorded by this study and reveals most recoveries to be from Denmark and Scandinavia. However, there are six recoveries in Russia, all east of 30°E, which could be within the *L.c.heinei* range.



Fig. 2. Foreign recoveries of Common Gulls ringed in Sussex, 1975 - 1993

Details of these six recoveries, all ringed in the later part of winter between 7 January and 24 March, are listed in Table 2. Although all were adults and four were recovered in the spring regrettably the recovery details cannot confirm their breeding in the area. Whilst noting that these recoveries suggest Russian *heinei* reach Britain, BWP notes cautiously that these may include birds of the nominate race *L.c.canus* recovered whilst passing overland and taking a tortuous migration route to areas near the White Sea or Murmansk within the known range for *L.c.canus*. Furthermore the measurements of these individuals fall within the ranges for both *L.c.canus* and *L.c.heinei*.

Table 2. Recovery details and wing lengths of Sussex-ringed Common Gulls recovered east of 30° East

Recovery region	Coordinates	Recovery circumstances	Recovery date	Wing length (mm)
Kalinin	56 38N 32 37E	Caught	26-05-82	Not measured
Kiyev	50 25N 30 30E	Found dead	15-09-84	368
Gorkiy	56 20N 44 07E	Found sick	15-05-86	350
Karelia	61 57N 37 05E	Found dead	02-09-86	370
Arkhangelsk	61 32N 45 48E	Found dead	01-05-87	365
Vologda	60 30N 44 25E	Found dead	18-04-91	377

Finally, the race *L.c.heinei* has a darker grey mantle colour than *L.c.canus*. This is far from a clear identification pointer as there is considerable individual variation and those *heinei* from the west of the range, and therefore those most likely to pass through Sussex in the winter, are paler than those from more eastern regions and are approaching the grey tone of *canus*. There are very few comments about plumage on the ringing sheets except for one individual trapped on 19 February 1986 with a wing length of 386 mm where the note records "mantle not noticeably dark". The combination of the lack of obvious plumage characteristics and overlap in measurements make *L.c.heinei* a difficult race to identify in the "hand" yet alone in the "field" and the BOU advise against identification of this race in the field.

ACKNOWLEDGEMENTS

Thanks are expressed to the owners and managers of the refuse tips for their permission to operate on their sites, in particular to the staff of the Sompington refuse tip where most Common Gulls were trapped. Furthermore all the ringers and helpers who have endured both unpleasant surroundings and frequent cold weather to catch the gulls deserve thanks.

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Dr John A. Newham, Walton House, 61 Grand Avenue, Worthing BN11 5BA
 Dr Barrie Watson, 83 Buckingham Road, Shoreham-by-Sea BN4 5UD

GULLS ROOSTING IN WINTER IN SUSSEX IN 1993

by A. de Poitier and B.J. Yates

INTRODUCTION

A national census of roosting gulls was carried out in January 1993. Organised by the BTO, it was the fifth in a series undertaken every ten years, though only the second to include coastal sites. In Sussex previous counts took place in 1977-9 (Porter, 1979) and 1983 (Newham, 1984). The aim of the count is to determine usage of sites as roosts, so that changes in numbers and locations of gulls wintering in Britain can be monitored.

METHOD

In Sussex coverage of the length of the coastline and the relevant inland sites was planned. As previously, observers were asked to position themselves on flight lines 2-3 hours before dusk, and record birds as they arrived. Counts of any present already were included. For inland sites it was recommended that a count should also be made just before dusk to distinguish birds in transit from those remaining to roost. Counters were asked to identify the species if possible, otherwise to distinguish between 'large' (Herring, Lesser and Great Black-backed) and 'small' (Black-headed and Common). If it proved impossible to continue identification throughout the period, a result based on the ratios already established could be submitted.

RESULTS AND DISCUSSION

Table 1. Roosting gulls in Sussex at dusk on 23 January 1993

	Black-headed Gull	Common Gull	Small Gull	Herring Gull	Lesser B-b Gull	Greater B-b Gull	Large Gull	Total
Chichester Harbour ...	10,964	1,488	2,633	45	5	203	0	15,338
Pagham Harbour ...	15,661	2,497	0	7,978	715	358	4,000	31,209
Aldwick			13,160			25	95	13,280
Littlehampton - Rustington	9,375	224	1,300	178	13	159	39	11,288
Angmering - Kingston Gorse	800	2	48	80	0	63	331	1,324
Ferring	872	1,112	0	28	0	20	0	2,032
Worthing	2,024	296	220	428	0	121	1,561	4,650
Shoreham	5,800	1,300	0	360	0	170	0	7,630
Brighton	792	24	0	170	6	43	0	1,035
Newhaven	3,500	100	0	500	1	30	0	4,131
Glyne - Bulverhythe ..	432	46	0	1,520	2	427	0	2,427
Pett	3,300	0	0	200	0	5	0	3,505
Rye - Camber	1,350	1,550	0	1,310	0	575	0	4,785
Weir Wood Reservoir 3,351		2,900	450	0	1	0	0	4,351
Arlington Reservoir ...	1,850	150	0	0	0	5	1	2,006
Bewl Water	24,000	4,000	0	20	0	10	0	28,030
Darwell Reservoir	600	200	2,550	50	5	200	275	3,880
Powdermill Reservoir ..	25	0	0	0	0	0	0	25
Balcombe Mill Res.	61	0	0	0	0	0	0	61
Ardingly Reservoir	600	40	0	0	2	0	1	643
TOTAL	84,906	13,479	19,911	12,868	749	2,414	6,303	140,630
PERCENTAGE	60.4%	9.6%	14.2%	9.1%	0.5%	1.7%	4.5%	
1983 PERCENTAGE	57.0%	5.3%	32.5%	2.3%	0.1%	0.6%	2.2%	

The count took place on 23 January. Overall, coverage was good. In contrast to the good conditions in 1983, the weather throughout Sussex on this occasion was very poor: strong south-west winds with intermittent light rain. On the coast this caused many gulls to seek shelter in harbours and estuaries, and some last-minute changes in observation points. Consequently coverage was in the event not exactly comparable with the 1983 survey. The poor light and early dusk may have led to an undercount. The tide, which in the west was low at approximately 1730, may also have affected the totals.

Table 2. Percentage of 'small' and 'large' gulls recorded during surveys in Sussex, 1977-93

	Small	Large	Unclassified
1977	89	9	2
1978	63	14	23
1979	78	12	10
1983	94.8	5.2	
1993	84.1	15.9	

The results from the various sites are shown in Table 1. The grand total of 140,630 is lower than the comparable 1983 figure of 148,607. Given the differences in conditions, this is unlikely to be a true decline. Nationally the total around the coast showed an overall decline of about 5%, but with regional variations (Waters, 1994). Comparison of proportions is probably more relevant. Overall there were relatively fewer 'small' gulls in 1993 than in 1983; distinguishing trends in species is difficult because of the high proportion of unidentified birds in 1983. The relative increase in 'large' gulls seems to be represented mostly by Herring. Relative proportions from all Sussex surveys are summarised in Table 2; although in 1978 nearly a quarter were not classified, the figures show no overall trend.

Table 3. Numbers of gulls using coastal and inland roost sites in Sussex, 1977 - 1993

	1977	1978	1979	1983	1993
Coastal	49,307	59,657	108,282	129,725	102,650
Inland	7,500	4,000	17,005	18,882	37,996
TOTAL	56,807	63,657	125,287	148,607	140,643
Percentage inland	13.2	6.3	13.6	12.7	27.0

Analysis of site data over time is most meaningful for the inland sites, as they are more accurately defined areas, and receive more consistent coverage. In general, the proportion of the total number using inland sites shows some consistency (Table 3); however over twice the 1983 total were found inland in 1993. Whether this is due to the different weather conditions is unclear; in 1978, when the weather was also bad, only half the preceding and following years' total was found inland. Noticeable trends at particular localities (Table 4) include a massive 28,000 'small' gulls at Bewl Water, continuing the previous rapid upward trend. Numbers at Darwell also continued to increase, boosted by an impressive 530 'large' gulls, which are rarely found inland. Numbers at Ardingly fell, as in 1983; peak numbers were counted there in the good census conditions of 1978. On the coast, the situation was virtually incomparable; observers reported atypical behaviour, and the data reflect that. The proportion occurring in the western harbours was 33.3%, compared with 25.7% in 1983. The arbitrary nature of this survey is further illustrated by the results of a similar count in Chichester Harbour in January 1992: on a cold, clear, still evening when the tide was high at 1437 only 5424 gulls were counted (Aspinal and Tasker, 1992).

Table 4. Counts of 'small' and 'large' gulls at major roost sites in Sussex, 1977 - 1993

Site	Large Gull SP				Small Gull SP				Total						
	1977	1978	1979	1983	1977	1978	1979	1983	1977	1978	1979	1983	1993		
Chichester Harbour	5,882	9,785	14,099	26,686	15,085	689	465	640	532	253	6,571	13,250	14,739	27,218	15,338
Pagham Harbour	23,226	987	16,312	10,412	18,158	416	765	910	586	13,051	24,783	13,010	18,827	10,998	31,210
Ferring - Worthing	4,500	3,960	25,407	24,212	4,524	1,500	1,312	7,505	548	2,100	6,000	5,272	42,912	25,160	6,683
Shoreham	1,500	11,350	0	1,911	7,100	100	2,000	0	328	530	1,600	13,350	360	2,239	7,630
Rye	5,000	8,744	10,921	11,892	2,900	1,100	803	3,079	1,267	1,885	6,100	9,547	14,000	13,161	4,785
Barcombe Reservoir	0	0	690	1	61	0	0	0	0	0	0	0	690	1	61
Weir Wood Res.	0	2,455	3,750	6,109	3,350	0	71	103	1	1	0	2,526	3,750	6,212	3,351
Arlington Reservoir	7,000	1,300	10,000	5,000	2,000	500	0	0	0	6	7,500	1,300	10,000	5,000	2,006
Bewl Water	0	59	449	6,002	28,000	0	14	148	0	30	0	174	992	6,002	28,030
Ardingly Reservoir	0	0	0	0	640	0	0	0	0	3	0	0	0	0	643
Darwell Reservoir	0	0	1,382	1,646	3,350	0	0	0	21	530	0	0	0	1,573	3,880

Table 5. Approximate populations of the commonest species of gulls roosting in Sussex, 1979-93

	1977-1979	%	1983	%	1993	%
Black-headed Gull	101,500	76	129,000	86.8	102,029	72.5
Common Gull	18,800	14	11,900	8.0	16,267	11.6
Herring Gull	8,900	7	6,060	4.1	17,910	12.7
Lesser Black-backed Gull	3,200	2	200	0.1	1,064	0.8
Greater Black-backed Gull	1,450	1	1,400	1.0	3,359	2.4

Some information on individual species can be extracted, using extrapolated figures (Table 5). The Black-headed Gull continues to be the most abundant species, though there were fewer than in 1983, being closer in both numbers and proportion to the Porter (1979) levels. Except for the possibly artificial count at Bewl, they were most abundant in the western harbours. Common Gull numbers were higher in this census than the last, again approaching the 1970's levels. High numbers occurred at Pagham and Rye (and Bewl) and also at Ferring, the favoured site in 1983. The greatest increase was in Herring Gulls, a phenomenon reflected nationally (Waters, 1994). The highest concentration was in Pagham Harbour. Lesser Black-back Gull numbers increased, as elsewhere in the south-east, though they continue to be the least numerous species and did not reach the 1970's level. Pagham was again the favoured locality. Great Black-back Gull numbers more than doubled, contrary to the regional trend. Their distribution was more even compared with other species. Finally, 11 Kittiwakes and single Glaucous and Mediterranean Gulls were reported which are in addition to the grand total recorded above.

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Anne de Potier, 6 Brook Gardens, Emsworth, Hants PO10 7JY
 Dr Barry Yates, 2 Watch Cottages, Nook Beach, Winchelsea TN36 4LU