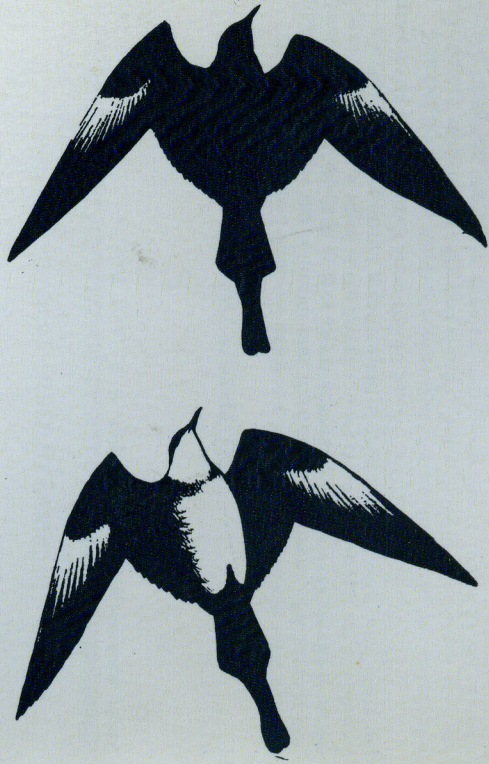


The
Sussex
Bird Report

1967



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The Sussex
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THE SUSSEX ORNITHOLOGICAL SOCIETY

The Society was founded in 1962, the objects being:

- (a) To record and study wild birds in the County of Sussex.
- (b) To assist in the preservation of wild birds in Great Britain.
- (c) To encourage by the use of films, books, meetings, outings and other means (i) the study of birds in the field and ornithological science generally and (ii) the education of its members and the general public in ornithological science and the need for protection of wild birds and their habitats.

The Society is administered by a Council consisting of honorary officers and not more than six members. The Sussex Bird Report and Quarterly Newsletters are issued free to members.

Full membership is one guinea per annum. There are reduced rates for additional members of a family, students and intermediate members all at 10/6. Junior Members pay 5/- and members joining after the 1st July are entitled to reduced subscriptions. Further details of the Society and subscriptions may be obtained from: *B. A. E. Marr, 59 The Green, Southwick, Brighton BN4 4FX.*

THE SUSSEX BIRD REPORT

Copies of Reports Nos. 15 (1962), 5/- post free and Nos. 17-20 (1964-7), 7/6d. post free may be obtained from: *A. B. Sheldon, 113 Holmes Avenue, Hove, BN3 7LF.*

CONTRIBUTIONS

These are welcomed from all observers but the decision on what shall be published rests with the Editorial and Records Committee. All records are, however, kept on separate species sheets and much that is not referred to in the Report may prove of value in the future. Care is taken to assess the accuracy of records but observers would greatly assist if they would particularly study the note on this subject which appeared on pp. 557-560 of *Brit. B.*, vol. 55.

Entering up records involves a great deal of work which can be minimised if contributors send in records periodically, but not more often than at three monthly intervals, using the *standard Recording Sheets issued by the Society.* These are obtainable from the Hon. Recorder or the Hon. Assistant Recorder. Observers are particularly asked to avoid sending in a large volume of notes after the end of the year when the Report is being drafted. **All records for publication must be in not later than 1st February.**

The names of all those contributing records will be included in the Report.

Cover Drawing of Pomarine Skuas by Ian Willis

THE SUSSEX BIRD REPORT

NUMBER TWENTY, 1967

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Published September, 1968

by

THE SUSSEX ORNITHOLOGICAL SOCIETY

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THE SUSSEX BIRD REPORT, 1967

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Miss V. Newton

Mr. Dennis Coda did not stand for re-election to the Council in 1968.
He had been a member since the Society's inception and the Council is most
grateful to him for his long spell of service.

Messrs. S. W. M. Hughes, D. C. Lang and Dr. A. B. Watson were elected to
the Council at the Annual General Meeting held on March 9th, 1968.

SECRETARY'S REPORT

The highlight of the Society's sixth year was the attainment of the 500 in
membership, and the year ended with the total at 520, a net increase of 49 over
the 1966 total.

Two new posts were created by the Council in October. To cope with the
increase in membership and the work which this involves, a Membership Secre-
tary was appointed, and Mr. D. J. Taylor kindly undertook to fill this post.

A Conservation Secretary was appointed, to devote time to dealing with specific items arising under this heading; it is envisaged that there will be many ways in which he will be able to help the Secretary and represent the Society at meetings and on special projects and the Council were delighted that Mr. David Lang agreed to take on this position.

The excess of Income over Expenditure for the year amounted to £112 3s. 11d. to which is added the balance brought forward from 1966 of £342 9s. 11d., making a figure of £454 13s. 10d. to be carried forward to 1968. Satisfactory though this may appear, it is only because of the change in Rule 7 that a surplus arises as it is no longer necessary to provide for the 1967 Report out of the 1967 income; had the rule not been changed, there would have been a deficit of £100 on the year's working.

The Junior Section of the Society maintained a steady membership, despite losing several of its members as they were elevated to Intermediate Membership on reaching the age of 15. The Council would like again to record its warmest thanks to Miss Mary Greenhalf for her continued hard work as the Section Secretary.

The Council met four times and the Records and Editorial Committee met seven times during the year, and Mr. S. W. M. Hughes was co-opted on to the Committee in November to help organise the Society's surveys. The number of records received by the Recorder is increasing every year, in response to requests for more information on many species, and in this connection the new form of printed Recording Sheet introduced during the year proved to be most helpful in easing the work of the Recorder and Assistant Recorder in entering the records in the files. The administration of Beachy Head Ringing Station underwent a change at the end of the year. As the problem of finding accommodation in the vicinity cannot be resolved, the Society's original intention of making the Station into a self-supporting formal Bird Observatory seems unlikely to ever be successful, and the Council decided that the Society's sponsorship of the Station should be ended. Consequently, at the end of the year the running of the Station, together with all the equipment, including mist-nets and the Heligoland Trap, were handed over to an independent Committee formed by the ringers who have been operating the Station. Society Outings will continue to be held at the Station, where individual members and their friends will be welcome as before.

Progress was made towards the establishment of a nature reserve at Rye Harbour by the formation of a Committee, headed by Guy Mountfort, and formed of representatives of the Society, the Sussex Naturalists Trust, The Nature Conservancy, The Hastings Natural History Society and the Rye Natural History Society. A Report was prepared which has been circulated to all local landowners, natural history societies, local authorities, and the Press, explaining the proposals and objects in establishing a reserve. As the Common Terns had no better success than in 1966, this ambitious plan is likely to be the only course which in the long run is likely to restore the colony to its former strength. Six Notice Boards were erected by the Society at the terneries in the spring, and it is felt that they may have had some success in preventing disturbance of the birds by the public.

Six lecture meetings were held in the year, four in Brighton and one each in Crawley and Eastbourne. The number of Field outings was increased to 15 in the year, with at least one per month and two in each of the months August, September and October. Memorable were Thorney Island in July with 50 Spotted Redshanks, a Little Gull, and a Crane, and Farlington Marshes in

November, where members saw 650 Brent Geese, 5 Jack Snipe, 4 Bearded Tits and a Lapland Bunting. Mr. C. E. Hope's hard work in arranging these outings was much appreciated by the members who attended.

A new printed form of Newsletter was introduced during the year, and three issues were published. These proved to be successful, and permitted the inclusion of longer articles than in the previous stencilled Newsletters. The Council is most grateful to Ian Willis who illustrated them so well, and to the printers, Regency Offset Printing Co. Ltd., for their considerable trouble and co-operation over the printing of them.

Mr. Tom Palmer's unenviable job of addressing all the envelopes in which literature is issued to members was somewhat eased at the end of the year when the Society took delivery of an addressing machine. To Mr. Palmer, to Mr. C. F. Helyer who deals with the despatch of our literature, and to all the others who helped him during the year, the Secretary extends his greatest thanks.

REVIEW OF THE YEAR

The Late Winter 1966/67

Early 1967 was generally mild with only one short cold spell and average rainfall. The cold spell, between Jan. 6th and 12th, produced typical westerly cold weather movements of Lapwing, Golden Plover, Skylarks, thrushes and Starlings but, apart from a SW. movement of c.10,000 Lapwings at Rye on the 8th, the numbers involved were small. Nor were there any notable influxes of wildfowl or passerines which sometimes occur, although 8 Pink-footed Geese were seen at Glynde on the 7th.

With two important exceptions wildfowl were rather fewer in this period than in 1966, although Tufted Duck and Pochard were nearly as numerous. The peak numbers of the common surface feeding species were decidedly lower, comparing poorly with those of ten years ago, and there seems little doubt that these birds, in particular Teal, are slowly decreasing. A possible exception are Mallard which are being artificially reared on a large scale. Large flocks of Wigeon still occur regularly but seem more transient than formerly. This decline is doubtless caused by the steady erosion of winter habitats and the imminent draining of Glynde Levels, at present our most important fresh marsh wintering area, makes the creation of a reserve in the county for these species of great importance. By contrast Gadwall now seem well established as regular winter visitors and 14 were present at Chichester G.P. during the period with several others noted elsewhere.

The two exceptions were Shelduck and Brent Geese which were both very abundant in the main harbours. Shelduck numbers were much as in 1966, with a peak of c.3,500 in February, but the peak count of c.2,600 Brent Geese in Chichester Harbour in January was a record for the third time in four years. This area is now one of the major wintering haunts of this species. There was also a flock of 30 pale-breasted Brents at Pilsey on Feb. 25th, the largest party of this race yet recorded in the county.

Other geese were much scarcer than in most recent years with only 5 small parties totalling c.24 Whitefronts seen; 3 Greylags were also recorded in January. No Whooper Swans were reported but parties totalling 62 Bewick's Swans were seen, mainly in January; the largest party was 21 on Pevensy Levels on Jan. 25th.

With wildfowl in rather short supply the main feature of the period was the number of raptors present, particularly Rough-legged Buzzards and Hen Harriers. Following the influxes of the previous autumn at least 7 of the former and 16 of the latter were wintering, a quite extraordinary number. A few Sparrowhawks seem to have been associated with these influxes and Merlin were also seen. One other predator, Great Grey Shrike, was also unusually widespread with at least 6 individuals being recorded. In contrast Short-eared Owls were very scarce, only some 7 being noted.

Interesting wader records at this time were an Avocet in Chichester Harbour in January and a wintering Little Stint there. This species has been found wintering annually since wader counts began. Far less usual was a Wood Sandpiper at Iford on Feb. 11th, the first February record for the county.

With the exception of Siskins winter passerine numbers were unremarkable, although the total of c.220 Bramblings was more than in 1965 or 1966 apart from cold weather influxes. Siskins were very numerous with at least 300 being noted in 18 localities in the first 3 months, and a flock of 100 being seen in Ashdown Forest on Apr. 1st. A fair scattering of Crossbills remained after the 1966 invasion and at least one pair eventually bred. A Yellow Wagtail at the Cuckmere on Feb. 12th was also of note, our second February record.

One other event in these months should be mentioned, the oiling incident in mid-January. What effect this had on wintering grebes and ducks offshore is hard to determine but between Pagham Harbour and Bracklesham in the period mid-January to mid-February oiled birds were 2 Black-throated Divers, 19 Great Crested Grebes, one Red-necked, 5 Slavonian and 2 Black-necked Grebes, 20 Eiders, 8 Red-breasted Mergansers, 20 Razorbills and 36 Guillemots. In many cases the birds were found dead. The figures for grebes, Eiders and Mergansers form a horrifyingly large percentage of the known populations of those species in the area and the possible effects of the oil had it penetrated Chichester Harbour are extremely serious. The oil slick responsible for this tragic destruction resulted from a collision off Beachy Head and the oil was allowed to float up and down off Sussex for a fortnight before it dispersed, mainly on our beaches.

Spring Migration

With a mild winter followed by a spell of fine warm weather with light westerlies, from about Mar. 11th to 27th, there was a similar crop of early arrivals to the previous two years. Chiffchaffs on Feb. 25th, Wheatears on Mar. 4th, Ring Ouzel on the 5th and Willow Warbler on the 12th were all exceptionally early, and between the 23rd and 27th Common Sandpiper, Cuckoo, Swallow, Whitethroat, Tree Pipit and Yellow Wagtail also arrived. A Swallow at Langney Point on Feb. 4th could have over-wintered. A fairly large fall of Wheatears occurred on the 26th and the peak arrival of 470 Meadow Pipits at Selsey Bill was on the 27th. A movement of 204 Scoter E. there on the 25th was one of the largest of the spring!

As often happens this early start was followed by a quiet period in early April, with predominately northerly winds and lower temperatures. Little

movement occurred except further arrivals of Meadow Pipits and Linnets, but a Hoopoe which remained for the whole month appeared at Barnham.

The first large fall of summer migrants occurred over April 15th/16th with a light N. wind moving E. on the 16th. Willow Warblers, Chiffchaffs and Yellow Wagtails were the principal species and also seen were c.8 Ring Ouzels, a species which was unusually abundant in the spring, and another Hoopoe. The same weekend also produced the first major movement at sea, with a large passage of Common Gulls, the first Common/Arcic and Little Terns and the first peak of diver passage.

Sea-passage proved to be one of the outstanding features of the spring, particularly between Apr. 24th and May 7th when the main movements took place with E-SE. winds predominating; there was also an interesting movement on May 14th. Skuas were probably the most interesting species concerned, with totals in the period of c.64 Arctic, out of a spring total of c.70, 5 Greats out of 9 and 18 Pomarines out of an extraordinary total of 21; this included a party of 11 off Beachy Head on Apr. 30th. Diver and Bar-tailed Godwit passage was also larger than for several years. Although there were more Black Terns than in 1966, numbers of other terns were about average and as usual some rarer ones were seen. There were single Gull-billed Terns on Apr. 30th and May 5th and an exceptional total of 9 Roseates, which included 7 off Selsey Bill on May 14th. Scoter movements were strikingly small, the largest being less than 300, and the spring total off Selsey Bill has often been exceeded in a good day's movement in other years.

As in 1966 there were no outstanding spring falls of passerines and the pattern for the two years was very similar; some warblers were very scarce at the coast. The largest arrivals of Wheatears, Redstarts, *phylloscopi*, Tree Pipits and Yellow Wagtails occurred between Apr. 15th and 23rd and of Whinthroats and Whithroats on May 6th and 7th. Other species showed no marked peaks except Turtle Doves and Swallows on May 14th. Rarer species with these movements were a Kentish Plover and 2 Temminck's Stints on May 13th, 4 more Hoopoes, 5 Firecrests including 3 at Beachy Head on May 13th, a very late date, and the rarest bird of the spring, a Red-rumped Swallow at Beachy Head on Apr. 23rd, the first county record. There was also a flock of 14 Avocets at Pagham on May 13th and 2 more at Beachy Head on the 28th when an Icterine Warbler was also trapped there.

Although there was little movement, June also produced some interesting birds, with 2 more Hoopoes making a spring total of 8, a Purple Heron on the 15th and a Little Egret from the 18th to 20th.

The Breeding Season

With the mild winter some species also started breeding very early. Most reports of early nests were of Song Thrushes and Blackbirds but a Robin's nest in late January was particularly noteworthy and Great Crested Grebes began nesting remarkably early with two February nests and at least 5 broods before Apr. 20th; normally breeding is only just beginning by this date.

Although the breeding of many species was less successful than in 1966 there were satisfactory increases in the populations of some species. The annual Heron census showed a big increase of about 20 pairs compared to 1966 and numbers now approach the pre-1963 level. In fact water birds generally did well. There were small increases of both breeding grebes and Tufted Ducks continue to spread. More breeding records of Teal, Kingfisher and Grey Wagtail were received than for many years; although these increases undoubtedly

reflect far greater observer activity, reference to Walpole-Bond suggests that the Grey Wagtail has increased in the county since 1938. A new breeding site for Water Rails was found and summer records for Pocharad came from 5 localities. Finally Little Terns also showed encouraging increases at their main stations; they have clearly benefited from a measure of protection.

Raptors also continue to do well. Kestrels showed a further small increase compared with 1966 and Sparrowhawks were also more numerous. Although there were rather fewer records more definite pairs of Hobbies were located and Buzzards were present in 8 localities. There was an encouraging increase in Barn Owl records but Little Owls are perhaps declining.

In the Society surveys of Snipe, Redshank and Yellow Wagtails little change in status was found; there were small increases in Snipe and Yellow Wagtails, the former confined to the Arun Valley. However, the overall results of this survey showed a great decline of all species since 1938. The new surveys of Nighthawk, Woodlark (which continues to be very scarce), Redstart and Tree Pipit brought some interesting information to hand but this cannot yet be used comparatively. Other passerines had a mixed season but Stonechats have increased on Ashdown Forest and Goldcrests and Wrens are now back to their pre-1963 levels; Wrens are probably above that level. Woodpeckers have also increased and are now back to pre-1963 strength in most areas.

General breeding success is always difficult to assess but some very useful data on the subject was received from the Plumpton area. Out of 206 nests of 25 passerine species: examined there, 122 (59%) failed to produce young. The most affected species were Song Thrush (48), Blackbird (36), Dunnock (13), Greenfinch (11), Linnet (8) and Chaffinch (5), all of which had over 70% failures. Figures in brackets are the number of nests found. The most successful species were Swallow (8), Blue Tit (6), Mistle Thrush (4), Goldfinch (9), all with better than 66% success.

Of the rarer species very few Garganey were reported, only one pair and 2 possibilities. Shoveler were found in 5 localities, one fewer than in 1966, but at least one pair bred successfully. Fulmars again summered but have yet to lay an egg; the Sandwich Terns did not return. Quail were scarce although slightly more numerous than in 1966 and a Wryneck summered. A pair of Whinchats bred for the first time since 1963 and 2 other pairs may have done so, and Dartford Warblers were present in 3 sites, one more than in 1966. This seems an encouraging attempt at recolonisation. Finally Redpolls were present in 3 sites in Ashdown Forest and a pair of Crossbills bred for the first time for 7 years; at least one more pair may have done so.

Autumn Migration

The first sign of return passage was, as usual, evidenced in the wader counts in late June. It was a very good autumn for wader passage, particularly for Ringed and Grey Plovers, Whimbrel, Common Sandpipers, Redshank and also for less common species like Green Sandpipers, Spotted Redshanks, Curlew Sandpipers and Little Stints. Wood Sandpipers, however, were quite scarce and both Greenshank and Ruff were fewer than in 1966. The wader count peaks of 1,250 Ringed Plovers on Aug. 20th and 1,550 Grey Plovers on Sept. 17th were particularly high. Common Sandpiper numbers in August were also high and included a flock of 50 on the Ouse on the 3rd. Curlew Sandpipers were more numerous than in any year since 1960, although the total of c.19 was still very

small, and Little Stints were unusually abundant; records included flocks of 17 on Sept. 17th and 18 on the 18th. Surprisingly there were no outstanding rarities but several phalaropes were seen, a Red-necked at Rye on Aug. 25th and Greys at Church Norton on Sept. 9th and Glynde on Nov. 3rd.

There was a long spell of settled fine weather in July but little movement during the month apart from steady wader passage. Swift passage, usually marked in this month, was negligible and movements of the common summer migrants did not start until early August. Two interesting rarities occurred at Chichester G.P., a Little Bittern from the 22nd to the 28th and a White Stork on the 22nd.

The fine weather of July ended on the 23rd and during most of August and September it was unsettled and stormy with predominately SW-W. winds, except for three short spells of easterlies, from Aug. 20th-24th and Sept. 7th-10th and 14th-17th.

The first large fall of warblers occurred on Aug. 6th when numbers at Beachy Head included 40 Garden Warblers, 400 Whitethroats, 25 Lesser Whitethroats and 140 *phylloscopi*. Movements of the common migrants were rather smaller in this month than in most years and hirundine passage was particularly poor all the autumn. However, there was a fairly large fall on Aug. 20th and some less common species were noted at the end of the month. These included a Wryneck, a very early Firecrest and a Red-backed Shrike at Beachy Head on Aug. 26th.

The largest falls of the autumn occurred in early September, between the 7th and 9th, and for some species, later in the month over the 16th/17th. During the first period the peak counts of 45 Wheatears, 40 Whinchats, 53 Redstarts, 18 Reed Warblers, 200 Blackcaps, 50 Lesser Whitethroats and 16 Pied Flycatchers were made at Beachy Head, and the only large movement of hirundines during the autumn either there or at Selsey Bill was noted. The weekend of the 16th/17th produced the peak numbers of 25 Ring Ouzels, 370 *phylloscopi* and 20 Spotted Flycatchers at Beachy Head and an excellent variety of rarer species all along the coast. These were Quail at Sidlesham, 2 Aquatic Warblers at Chichester G.P., Honey Buzzard at Seaford Head, Montagu's Harrier, Wryneck, Firecrest, Tawny Pipit and 2 Ortolans at Beachy Head, another Montagu's Harrier at Pevensey Levels and a Bluethroat at Rye Harbour.

Four other Wrynnecks were recorded between Sept. 7th and 11th and further Tawny Pipits on the 20th and 24th. Six Firecrests at Beachy Head on the 24th were the first peak of what was to prove a notable autumn there for the species.

October

October was rough and wet, with a long series of strong SW-W. winds often reaching gale force and a good deal of rain. There was one short spell of calm weather with light variable winds between the 18th and 23rd.

Not surprisingly movements were scrappy. Sea-bird passage which might have been expected to provide much interest was disappointing, despite a larger tern passage than usual earlier in the autumn. Numbers of Arctic Skuas were rather low, although 3 or 4 Great Skuas were seen, and species such as divers, Gannets and Kittiwakes were scarce. Nor was there much offshore passage of wildfowl—often noted in the past. However, 2 rarer species occurred which have not been recorded for a number of years; a Storm Petrel on the 29th and a Sabine's Gull on the 11th and 12th. Two Manx and one Balearic Shearwater were also reported.

Visible movements of passerines were also small. In particular only one really large finch movement occurred, on Oct. 21st. There were two quite large

hirundine movements early in the month including 3,000 House Martins SW. at West Chiltington over the 9th/10th: the only substantial movement of the species during the entire autumn. Ring Ouzels, in strong contrast to 1965 and 1966 were quite scarce with a maximum of only 13 at Beachy Head during the month. Crest movements on the other hand were larger than usual, with peaks of 45 Goldcrests at Beachy Head on the 8th and 55 there on the 21st. Half the autumn total of c.30 Firecrests were seen during the month, and included a maximum of 8 at Beachy Head on the 21st.

Other features of the month were a surprisingly large crop of rarities and some late summer visitors. Rarities were a Hoopoe at Groombridge from the 5th to 18th, a Yellow-browed Warbler on the 5th, a Red-breasted Flycatcher on the 21st, the second Sussex record, and a total of about 5 Richard's Pipits on the 4th and from the 22nd to Nov. 2nd. Late summer visitors were Black and Common/Arctic Terns which were quite widespread at the end of the month and remained until November, Little Tern on Oct. 15th, Redstart on the 23rd, Grasshopper Warbler on the 21st, Reed Warbler on the 22nd, Whitethroat on the 30th, Lesser Whitethroat on the 18th and a Red-backed Shrike from the 23rd to 29th.

The Early Winter 1967/68

In contrast to October, November was generally mild, fine and dry with below average rainfall. This good weather continued until Dec. 8th when there was a sudden blizzard followed by 4 days of intense cold. Thereafter December was fairly dry but warmer despite some hard night frosts.

In November some very late summer visitors were still being recorded and of outstanding interest were Black Terns on the 5th, 10th and 12th, Turtle Doves on the 5th and 11th, Sand Martin on the 3rd, Whinchats on the 11th and 17th, by far the latest for the county, and a Ring Ouzel on the 19th. Swallows and House Martins were still present in early December.

Significant movements in the period were rather few and species such as Fieldfares and Redwings were scarce and late in arriving. The foot-and-mouth epidemic also restricted many observers' activities and our records for these months are less complete than usual. However, the now usual influx of Bearded Tits occurred and by mid-November they had been seen in all the usual places. The autumn total of c.46 was very similar to previous years. Two interesting rarities were reported, a Shorelark on Nov. 8th and a Serin on Dec. 3rd.

Grebes also provided some interesting records with a concentration of c.200 Great Crested in Rye Bay on Dec. 4th, the largest gathering noted offshore for some time, and up to 20 Slavonian/Black-necked Grebes in the Selsey area during December, more than are usually seen there.

Duck numbers were slightly higher in many areas than at the same time in 1966, despite the rather drier conditions, but no figures approaching the concentrations of Mallard, Teal and Wigeon found at Glynde in December 1966 were seen. The largest number of Teal was 300 at Amberley/Pulborough on Dec. 22nd, and of Wigeon was 500 there on the 24th. Pintail were very few but 15 Gadwall were present at Chichester G.P. Brent and Shelduck on the other hand were again very numerous, with peaks of 1,500 Shelduck in Chichester Harbour on Dec. 24th, more than twice as many in December, 1966, and a peak of 1,200 Brent there in November, again an increase compared with 1966.

There were also unusual numbers of Long-tailed Ducks with a total of 14 seen from Nov. 3rd; 5 of these remained to the end of the year. Other less common wildfowl were the usual few parties of Bewick's Swans, 7 Whoopets

on Dec. 3rd and one party of White-fronts at the end of the month, the only grey geese reported.

The blizzard in early December caused some widespread movements of Lapwings, Golden Plover, Skylarks, thrushes and Starlings. The largest movements occurred on the 9th and included 1,500 Redwings per hour W. over Worthing and c.90,000 Starlings W. over Southwick.

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Dr. A. B. Watson
E. T. Welland
L. & J. Weller
R. V. White
Miss W. P. White
J. B. Whitby
J. A. Wigzell
R. Williamson
I. R. Willis
Mr. & Mrs. P. J. Wilson
S. R. Woods

Wildfowl counters for 1967 season:
R. B. Barstow (Powdermill Res.), J. W. Clark (Barcombe Mills Res.), D. R. Coda (Glynde Levels), J. Fowler (Chichester G.P.), E. S. F. Harrison (Cuckmere Valley, Seven Sisters and Weir Wood Res.*), Miss V. Masse (Burton Ponds), G. M. Moll (Knepp Lake and Warnham Mill Pond), D. R. Park (Swanbourne Lake), J. Reaney (Darwell Res.*), H. P. Kay, Robinson (Pagham Harbour), A. B. Sheldon (Amberley* and Puborough Levels*), T. C. Hale, Dr. M. Hollings, B. A. E. Marr, M. Shrubbs (Chichester Harbour).

* Priority Count Locality

CLASSIFIED RECORDS FOR 1967

Recoveries of birds ringed have not been cross-referenced to the ringing report. The wildfowl tabulation and the report on Wader Counts should be read in conjunction with the notes under individual species for a complete picture.

Abbreviations: "G.P."—gravel pits. "S.F."—sewage farm. "E," "W," etc.—cardinal points of the compass are intended only to give a general direction unless the context indicates otherwise. In particular this applies to birds going up or down the Channel and which are referred to as flying E. or W. "s/p, w/p"—summer or winter plumage. "c/l"—clutch size in nest found.

Definition: "Days watching"—the number of days in which watching was done in an area.

Initials: Observers' initials are given only with those species which are rarely recorded in the county, except in the case of very rare breeding species. For other unusual records the statement is made that satisfactory details have been received, as they have. Anyone wishing further details of any record may obtain these from the Recorder unless such information is confidential.

1. **BLACK-THROATED DIVER (*Gavia arctica*).**—An unusual number of records. One picked up dead, oiled, at Selsey Bill and another, badly oiled, seen off Church Norton on Jan. 15th. The latter may have been the bird picked up dead in Pagham Harbour on Feb. 7th. On Feb. 11th RES saw 13 up to 7 miles offshore in Rye Bay from a fishing boat. One off Selsey Bill on Mar. 4th and one in s/p flying E. there on Apr. 1st.

At the end of the year single birds off Pilsey Island on Nov. 23rd, at Newhaven on Dec. 7th and off the Cuckmere on the 30th. Satisfactory details of these records have been received.

2. **GREAT NORTHERN DIVER (*G. immer*).**—Single birds off Selsey Bill on Jan. 1st and flying E. there on Apr. 24th. One in Chichester Harbour on Oct. 5th and Nov. 25th. Satisfactory details of these records received.

4. **RED-THROATED DIVER (*G. stellata*).**—C.60 recorded in the early part of the year, including 9 off Worthing on Jan. 9th, 13 up to 7 miles offshore in Rye Bay on Feb. 11th and, at Selsey Bill, 6 E. and 7 W. in 11 days watching in January and February and 24 E. and 4 W. there in 20 days in March and April. Single birds picked up dead, oiled, in Pagham Harbour in January and February. At the end of the year the only records were one E. and 11 W. off Selsey Bill in 21 days watching from Nov. 3rd to Dec. 31st and one at Pett Levels on Dec. 16th.

DIVER SPECIES (*Gavia* sp.).—Thirteen E. and 39 W. in 11 days watching at Selsey Bill in January and February and 44 up to 7 miles offshore in Rye Bay on Feb. 11th. Spring movements were larger than in the previous 2 years with 119 E. and 31 W. at Selsey Bill in 34 days watching March to May, peaks 26 E. over Apr. 15th/16th and 28 E. on May 6th, and 79 E. at Beachy Head in 22 days from March 25th to the end of May.

In the autumn first recorded on Oct. 8th at Beachy Head with 7 E. and 11 W. there in 15 days watching up to Dec. 2nd. At Selsey Bill 33 E. and 45 W. in 27 days from Oct. 23rd to Dec. 31st.

5. **GREAT CRESTED GREBE (*Podiceps cristatus*).**—A considerable increase in records, mainly of wintering birds. In the early months c.90 recorded in 9 inland localities and c.100 in 10 coastal localities. The latter included 12 oiled birds in the Pagham/Selsey area in mid-January, 7 of these were dead, and a further 7 oiled birds were found dead there in February. Three flew E. off Selsey Bill on Apr. 9th and one on May 14th.

No complete count of breeding pairs was made but pairs were recorded as follows:

Locality	No. of pairs	Locality	No. of pairs
Chichester G.P.	16 (20)	Rowfant	1
Burton Park	2 (2)	Powdermill Res.	2
Knepp	2 (2)	Baym-Abbey	4 (3)
Warnham Mill Pond	2 (1)	Rye Harbour G.P.	2 (1)
Hammer Pond	1 (2)	Pett Levels	1
Balcombe Lake	1 (1)	Monkpenney G.P.	1
Pond Leigh	1 (1)	Balcombe Res.	1

The figures in brackets are for 1966 and, with the exception of Chichester G.P. where there was no complete count, show a small increase in 1967. In addition single birds were recorded at Barnhouse Pond, Hawkins Pond, Lindfield Farm and Maresfield. Breeding started exceptionally early, 2 nests being found at Chichester on Feb. 26th, one of which hatched by Mar. 12th; another brood was seen at Hammer Pond on the 29th and 3 more were recorded before Apr. 20th. Breeding success was rather poorer than in 1966.

BREEDING SUCCESS, 1967		Average brood size
Pairs reported	49	2
Pairs known to have raised young	23	2
Young recorded	46	2

The table does not include figures from Chichester G.P. where some young were certainly reared.

In November and December there were totals of 42 in 5 inland localities and c.260 in 10 coastal localities, including c.200 in Rye Bay on Dec. 4th.

6. **RED-NECKED GREBE** (*P. griseogenia*).—Recorded only from the Pagham/Selsey area where one was picked up oiled on Jan. 14th and there were 2 in s/p on Mar. 26th, and one on Apr. 22nd. At the end of the year 2 off Church Norton on Dec. 30th. Satisfactory details of these records have been received.

7. **SLAVONIAN GREBE** (*P. auritus*).—Five badly oiled birds in the Pagham/Selsey area in mid-January, 3 of which were dead; another oiled at East Head on Jan. 15th. Single birds at Rye Harbour G.P. on Jan. 12th and 23rd, off Selsey Bill on the 21st and off Pilsey Island on Feb. 25th, with 3 there on Mar. 12th. Up to 4 off Church Norton from Feb. 6th to Apr. 6th, one at Chichester G.P. on Mar. 2nd and one off Selsey Bill on Apr. 22nd.

At the end of the year 5 off Church Norton on Nov. 12th and a maximum of 13 there on Dec. 17th; no records away from the Pagham/Selsey area.

8. **BLACK-NECKED GREBE** (*P. nigricollis*).—Two in Pagham Harbour in January and February were eventually picked up dead, oiled. Single birds off Selsey Bill on Jan. 15th, Feb. 25th and in s/p on Apr. 23rd. Two off Pilsey Island on Jan. 28th and one at Chichester G.P. on May 11th.

One at Chichester G.P. on Aug. 31st and from Oct. 20th to Nov. 12th, when it was picked up dead having flown into overhead wires. Single birds at Weir Wood Res. on Aug. 25th, Rye Harbour G.P. from Sept. 25th to Oct. 20th and at Pilsey Island on Oct. 22nd. Two off East Head on Dec. 17th.

SLAVONIAN/BLACK-NECKED GREBE.—Recorded only in the Pagham/Selsey area where up to 3 offshore regularly from January to March; one E. off Selsey Bill on Apr. 29th and one likewise on May 13th. At the end of the year 2 offshore on Nov. 11th and a maximum of 7 likewise on Dec. 17th, when 13 definite Slavonian Grebes were also noted.

9. **LITTLE GREBE** (*P. ruficollis*).—As with Great Crested Grebe a considerable increase in winter records, particularly at the end of the year. In the early months totals of c.30 recorded in 7 inland localities and c.70 in 8 coastal localities; the largest parties were 15 at Pagham Lagoon in January and February and 17 at Cuckmere Haven on Feb. 4th.

Fewer breeding pairs recorded than in 1966 but in areas visited in both years a small increase noted. Pairs recorded as follows:

BREEDING PAIRS 1967			
Locality	No. of pairs	Locality	No. of pairs
Severals, Church Norton	2 (1)	Darwell Res.	1 (1-2)
Chichester G.P.	6 (5-4)	Rye Harbour G.P.	3 (3)
Swanbourne Lake	2 (1)	Wiston Park	1
Burton Park	2 (2)	Weir Wood Res.	1
		Knepp	0 (1)

In addition birds also recorded at West Harting Pond (1), near Ardingly (TO 338284), Newnham Lake, Paxhill Park and Steyning Mill Pond (1). Figures in brackets are for 1966. None bred at Possingworth Park where 3 pairs normally do so. Six pairs are known to have raised a total of 11 young. At the end of the year totals of c.50 in 12 inland localities and c.130 in 12 coastal localities, with c.30 at Newnham Tidemills in November and December as the largest party.

14. **STORM PETREL** (*Hydrobates pelagicus*).—One flew W. c.120 yards off Selsey Bill on Oct. 29th (HPKR).

16. **MANX SHEARWATER** (*Puffinus puffinus*).—Single birds showing the characters of the race *puffinus* flew W. off Selsey Bill on May 6th (RJJ, RJS, ETW) and 15th (RJJ, ETW) and Oct. 1st (HPKR). One picked up dead at Newnham Tidemills on Oct. 29th (DCL).

One showing the characters of the race *mauretanicus* flew W. off Selsey Bill on Oct. 1st (HPKR, MS).

26. **FULMAR** (*Fulmarus glacialis*).—First recorded on Feb. 19th at Selsey Bill and a total of 10 E. and 50 W. there in 34 days watching March to May; 11 W. on Apr. 23rd was the largest movement. At Beachy Head up to 12 resident from Mar. 19th to June 11th but still no sign of breeding. Elsewhere along the coast up to 4 in several localities in April, May and June, including 2 or 3 prospecting the cliffs at Rottingdean in early June.

In the autumn 3 records in August and 3 in September and one picked up dead at Selsey Bill on Nov. 4th.

27. **GANNET** (*Sula bassana*).—Totals of 2 E. and 9 W. at Selsey Bill in 11 days watching in January and February. Rather larger spring movements than in the previous two years: 62 E. and 103 W. at Selsey Bill in 34 days watching March to May, 43 E. on May 15th being the largest movement; 61 E. at Beachy Head in May, maximum 48 on the 4th. One slightly oiled picked up dead near Arundel on May 29th.

In the autumn 29 E. and 115 W. at Selsey Bill in 63 days watching July to November and one E. and 4 W. in December. At Beachy Head 34 W. and 4 E. in 38 days July 30th to Nov. 11th.

28. **CORMORANT** (*Phalacrocorax carbo*).—As usual recorded along the whole length of the coast and from at least 7 inland localities. The table below summarizes the records by months but is probably very incomplete; the bulk of the coastal records come only from Selsey Bill and Beachy Head.

Coast	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Inland	c.35	c.57	c.105	46	3	2	—	—	4	4	4	4
	34	29	4	3	2	—	—	4	4	4	24	40

The large drop in records in May and June may have no significance. As usual there was a roost in Arundel Park which held 10 birds on Jan. 15th.

29. **SHAG** (*P. aristotelis*).—One oiled bird found in Pagham Harbour in January. Up to 3 off Selsey Bill in the first 3 months of the year and one during April. One in Newnham Harbour from Feb. 24th to Apr. 5th. One at Cuckmere Haven on Aug. 20th and 2 at Selsey Bill on Sept. 16th and 24th.

30. **HERON** (*Ardea cinerea*).—All known Heronries except Firle were visited and the numbers of occupied nests were: Old Park Wood, Fishbourne, 23 plus 2 probably occupied; Pagham, 6 plus one probably occupied; Parham, 37; Henfield, 4 plus one probably occupied; Glynde, 8; Preisthaves, 2 plus one possibly occupied; Glynleigh, 2; Eridge, 8 plus 3 possibly occupied; Westham, 2 one of which lost in a gale; Leasam, 20. The total of 112-116 occupied nests plus 4 more possibly in use represents an increase of c.20 pairs compared with 1966. Once again there were up to 4 juveniles at Lurgashall at the end of the breeding season.

Records indicating migration were: in the spring single birds in S-N. at Selsey Bill on Apr. 16th and out SE. there on May 6th and 30th; at Beachy Head 2 SW-N. on Apr. 8th and one S-NE. on the 30th and one S-N. at Hove

on Apr. 18th. In June single birds out S. at Selsey Bill on the 6th, in S-NE. at Brighton on the 28th and out SE. near Newhaven on the 30th. In the autumn one came in from the sea at Beachy Head on July 2nd and one likewise on Aug. 6th, one W. c. 1 mile offshore at Hove on July 7th and 4 from the SE. flew off W. at Selsey Bill on Aug. 26th.

On Dec. 31st a party of 16 NE. over Weir Wood Res.

31. **PURPLE HERON** (*A. purpurea*).—One near Lyminster on June 15th (MH). This record has been accepted by *Brit. B.*

32. **LITTLE EGRET** (*Egretta garzetta*).—One at Sidlesham Ferry from June 18th to 20th (HPKR, MS). This record has been accepted by *Brit. B.*

37. **LITTLE BITTERN** (*Ixobrychus minutus*).—One at Chichester G.P. from July 22nd to 28th (MG, ABW *et al.*). This record has been accepted by *Brit. B.*

38. **BITTERN** (*Botaurus stellaris*).—One at Pagham on Jan. 24th.

39. **WHITE STORK** (*Ciconia ciconia*).—One at Rye from Apr. 18th to 20th (CG) and one at Selsey Bill on the 30th departed E. (RJJ). One at Chichester G.P. on July 22nd (HPKR). These records have been accepted by *Brit. B.*

45. **MALLARD** (*Anas platyrhynchos*).—During January and February there were up to 80 at Lurgashall Pond, 150 at Burton Pond, 300 off Selsey Bill, 50 at Barcombe Res. and 50 at the Cuckmere; c.800 in the Rye area on Jan. 2nd, 62 off Ferring on the 6th, 57 at Warnham Mill Pond on the 8th and 120 at Knepp on the 15th.

Counts of breeding pairs were: Shillinglee Park, 5; Lurgashall Pond, 3; Burton Pond, 7; Pagham Harbour, 5 in the marshes by the N. wall; Selsey area, 12; Arun Valley, a minimum of 20 between Amberley Wildbrooks and Littlehampton; Patching Pond, 11; Weir Wood Res., 3; Barcombe Res., 3; Rye Marsh and Harbour, 9. Successful breeding by single pairs also noted in 6 other localities and a total of 34 broods totalling c.220 young were recorded. In addition 57 adults and 50 young at Swanbourne Lake on June 21st. On Oct. 1st DRP saw a brood of 2 only a few days old on Patching Pond.

At the end of the year 260 at Warnham Mill Pond on Sept. 17th, declining to c.60 in December; 105 at the Cuckmere on Sept. 17th; a maximum of 150 at Swanbourne Lake on Nov. 12th; 250 at Knepp on Nov. 12th and 190 on Dec. 17th; up to 300 in Rye Bay in December; 80 at Darwell Res. on Dec. 17th and 50 at Barcombe Res. on the 29th.

46. **TEAL** (*A. crecca*).—In the early months the following flocks noted: 70 at Shoreham on Jan. 4th and 45 on Feb. 15th; 40 at Sidlesham Ferry on Jan. 9th; 38 at Burton Pond and 30 on Pevensey Levels on Jan. 29th; 46 at Lurgashall Pond on Feb. 19th and 30 at Knepp on the 23rd. Smaller parties totalling 127 birds noted in 10 other localities.

Two pairs, out of 3 present, bred successfully at Lurgashall Pond; a pair with 9 young at Stanford Brook (TQ288327) and a pair raised 6 young at Weir Wood Res. Pairs were also present in the breeding season at Thorney Deep, one; Selsey area, at least one; Burton Pond, 2; Adur valley (TQ191164) one; Warnham Mill Pond, one; Barcombe Res., one. Single males were seen

near Worth Priory on May 20th and at Maresfield on the 26th, and in June there were up to 4 at the Midrips/Wicks. Three at Rye Harbour G.P. on July 18th. Birds were also present at Slaugham Place, Lindfield Farm, near Balcombe (TQ328324), Ardingly, Horsted Keynes, near Fitching (TQ437254) and Bayham Lake in April and at Scaynes Hill and near Horsted Keynes (TQ384267) in August; some of these very probably bred.

At the end of the year 200 at Sidlesham Ferry on Nov. 10th, 100 on Horsey Levels on Nov. 11th, 59 at Darwell Res. on Nov. 12th, 92 at Manhood End on Dec. 27th and 40 at Wartling on the 31st.

Ducks.—The table below sets out the recorded monthly maxima of the principal species at certain of the most important wintering areas in the county. Systematic counts were again made in Chichester Harbour, covering the same areas as in 1966 with the addition of Bosham; the December figures, except for Shelduck, come only from Pilsey Island as the other counts were cancelled owing to the foot-and-mouth restrictions. The figures in parentheses are the dates on which the counts were made. The Systematic List is largely confined to records outside the scope of this table.

MONTHLY MAXIMA OF DUCK AT SELECTED LOCALITIES

	Jan.	Feb.	Mar.	Apr.	Sept.	Oct.	Nov.	Dec.
Chichester Harbour								
Mallard	125 (15)	10 (12)	38 (12)	10 (23)	4 (17)	32 (22)	28 (19)	43 (31)
Teal	53 (15)	0	1 (12)	0	10 (17)	3 (22)	73 (19)	222 (31)
Wigeon	670 (15)	176 (12)	18 (12)	0	14 (17)	40 (22)	125 (19)	130 (31)
Pintail	68 (14)	50 (12)	16 (12)	0	0	2 (22)	38 (19)	2 (31)
Shoveler	2 (15)	6 (12)	2 (18)	0	0	0	0	2 (31)
Shelduck	2600 (15)	3000 (12)	270 (12)	150 (23)	62 (17)	140 (22)	630 (19)	1500 (24)
Pagham Harbour								
Mallard	70 (15)	55 (12)	45 (12)	19 (23)	95 (18)	120 (1)	70 (19)	250 (10)
Teal	0	11 (12)	27 (12)	0	5 (18)	105 (1)	0	70 (10)
Wigeon	550 (7)	14 (12)	0	1 (23)	30 (18)	4 (22)	250 (26)	430 (17)
Shelduck	560 (15)	490 (12)	275 (12)	160 (23)	15 (18)	120 (22)	120 (19)	150 (17)
Chichester G.P.								
Mallard	245 (15)	220 (25)	46 (12)	—	220 (17)	600 (6)	130 (12)	295 (17)
Teal	6 (15)	4 (12)	0	—	4 (17)	100 (16)	40 (8)	37 (24)
Shoveler	1 (15)	54 (2)	6 (12)	2 (9)	0	50 (24)	40 (25)	84 (31)
Tufted	290 (15)	150 (12)	90 (12)	—	20 (17)	24 (15)	170 (12)	390 (17)
Pochard	340 (15)	120 (12)	25 (12)	—	30 (17)	200 (29)	320 (12)	300 (17)
Amberley/Pulborough								
Mallard	50 (15)	100 (25)	85 (12)	30 (15)	8 (17)	—	14 (12)	30 (17)
Teal	18 (21)	150 (25)	270 (12)	50 (15)	0	—	72 (12)	300 (22)
Wigeon	350 (15)	1000 (20)	1055 (12)	12 (12)	0	—	55 (11)	500 (24)
Pintail	0	40 (4)	30 (5)	—	0	—	12 (11)	20 (24)
Shoveler	0	42 (26)	20 (19)	—	0	—	2 (9)	0
Weir Wood Res.								
Mallard	350 (2)	45 (12)	20 (12)	20 (17)	250 (17)	240 (15)	505 (12)	455 (17)
Teal	35 (22)	10 (12)	3 (12)	8 (17)	12 (17)	35 (17)	30 (26)	50 (10)
Wigeon	130 (22)	65 (12)	3 (12)	2 (17)	0	0	8 (12)	110 (17)
Tufted	180 (15)	90 (12)	65 (12)	35 (5)	0	0	2 (12)	40 (10)
Pochard	90 (2)	26 (12)	11 (12)	65 (17)	0	0	90	40 (10)
Levels								
Mallard	110 (15)	80 (12)	45 (12)	—	35 (17)	80 (15)	900 (11)	400 (24)
Teal	170 (15)	150 (12)	250 (4)	—	6 (17)	38 (15)	300 (25)	55 (24)
Wigeon	420 (15)	350 (12)	300 (12)	—	0	0	400 (25)	250 (24)

NOTE: A dash indicates that no information was available.

47. **GARGANEY** (*A. querquedula*).—Between Mar. 10th and mid-May c.30 passage birds recorded at the coast and inland.

Only one definite breeding pair reported, which was apparently unsuccessful, but records from 2 other localities in May also suggest attempted breeding.

In the autumn 27 recorded between July 23rd and Sept. 15th, including parties of 9 at Sidlesham Ferry on July 23rd and 6 at Thorney from Aug. 5th to 20th.

49. **GADWALL** (*A. strepera*).—The species continues to be comparatively numerous. Wintering again took place at Chichester G.P. with up to 14 at the beginning of the year and up to 15 at the end of the year. There were still 2 there on Apr. 15th and 4 were recorded on Sept. 17th.

Elsewhere one at Church Norton on Jan. 1st and 3 on Mar. 12th; one at Swanbourne Lake drifting February; 3 at Burton Pond on Mar. 12th and 2 at Sidlesham Ferry on the 20th. Single birds at Pagham Lagoon on Sept. 26th and Weir Wood Res. on Oct. 17th, and 4, one of which was shot, at the Midrips/Wicks on Nov. 29th.

50. **WIGEON** (*A. penelope*).—In the early months there were 45 off Ferring on Jan. 6th, 125 in the Cuckmere on Jan. 15th, 102 at Darwell Res. on Feb. 12th and up to 100 at Barcombe Res. In addition small parties totalling c.60 birds in 4 other localities.

A pair at Weir Wood Res. on Apr. 13th and a male on May 11th and a pair present in another locality throughout the breeding season.

At the end of the year a maximum of 83 at Barcombe Res. on Nov. 21st and 80 in the Cuckmere on Dec. 17th.

52. **PINTAIL** (*A. acuta*).—With the figures in the table on page 15 (*qv*) and the following records every record is given. In January 12 at Rye Harbour on the 15th and 11 in Pagham Harbour and 14 at Burton Pond on the 28th. Four at Knepp on Feb. 26th; 2 at Pagham on Mar. 12th; 5 at Church Norton on the 27th and one flying E. off Selsey Bill on Mar. 28th, with 4 likewise on Apr. 15th and 3 on the 22nd. Four at the Midrips on May 7th.

One at Chichester G.P. on Sept. 2nd and 18 there on Oct. 15th; one at Knepp on Oct. 16th; 3 at Horseye Levels and 8 W. off the Cuckmere on Nov. 11th; 2 at Weir Wood Res. on Nov. 12th and 2 at the Midrips on the 26th and 10 at Church Norton on Dec. 28th.

53. **SHOVELER** (*A. clypeata*).—In the first three months of the year there were small parties totalling c.125 birds in 10 localities not listed in the table on page 15 (*qv*), the largest being up to 39 at Barcombe Res. in January and February and 23 at Burton Pond on Feb. 18th; once again there was very little visible spring passage.

In the breeding season pairs or birds were recorded from 5 well separated localities. One pair successfully reared 5 young and at least one other pair is known to have attempted breeding, apparently unsuccessfully.

Few in the autumn, the most were 20 at Knepp on Nov. 12th.

55. **SCAUP** (*Aythya marila*).—All records were: single birds at Newhaven from Jan. 3rd to 14th, off Cooden on the 24th and at Church Norton on Feb. 11th. A pair at Horsted Keynes on Mar. 5th, inland records are unusual. One at Cuckmere Haven and 2 at Weir Wood Res. on Sept. 17th; 3 at Barcombe Res. on Oct. 24th, one remaining until Nov. 21st, and 5 off Pett Levels on Nov. 20th.

56. **TUFTED DUCK** (*A. fuligula*).—In January and February there were 50-70 at Pagham Lagoon, up to 30 at Shillinglee Park, up to 60 at Burton Pond, up to 80 at Barcombe Res., 30-50 at Darwell Res. and up to 80 at Rye Harbour G.P. In addition small parties totalling c.90 birds recorded in 8 other localities. On Apr. 4th CFT saw a Tufted/Ferruginous hybrid at Weir Wood Res.

The number of breeding season records continues to increase with c.25 pairs breeding compared with c.17 pairs in 1966.

Locality	BREEDING OR RESIDENT PAIRS 1967				Young reared
	Pairs present	Pairs bred	Maximum recorded	Young recorded	
West Harting Pond	1	?	?	?	?
Hurst Mill Pond	4	1 male	?	?	?
Chichester G.P.	3	3	15	15	11
Shillinglee Park	2	1	3	3	3
Lurgashall Pond	2	2	12	12	12
Burton Pond	6	1 male	2	8	8
Swanbourne Lake	1	—	—	—	—
Warnham Mill Pond	2	2 males	?	?	?
Wiston Park	1	1	8	8	8
Fullingmill	2	2 males	1	5	?
Gravetye Manor	2	?	?	?	?
Horsted Keynes	1	1 male	—	—	—
Weir Wood Res.	5	15	23	23	23
Barcombe Res.	2	1	1	6	6
Iford	1	1	?	?	?
Glyndebourne	1	?	?	?	?
Glynde Reach	1	1	9	9	?
Darwell Res.	2	2	25	25	?
Rye Harbour G.P.	5	5	25	25	?
TOTALS	42	22	114	114	?
		males			

In addition 14 other pairs were recorded in 6 more localities in April and early May, but it is not established if these were wintering birds or resident.

In November and December there were up to 70 at Pagham Lagoon, 80 at Darwell Res. on Dec. 17th and a total of c.70 in small parties in 5 other localities.

57. **POCHARD** (*A. ferrina*).—In January and February there were up to 30 at Shillinglee Park, 60 at Burton Pond and 90 at Barcombe Res.; 235 at Rye Harbour G.P. on Jan. 2nd, 44 at Darwell Res. on Feb. 12th and 35 at Knepp on the 19th. In addition small parties totalling c.70 birds recorded in 8 other localities.

Summer records were: a male at Horsted Keynes from March to June; a male at Weir Wood Res. on June 18th and 3 there on the 22nd; 3 at Burton Pond on June 18th; 7 at Chichester G.P. on the 24th and 10 there on July 9th; one at Darwell Res. on July 16th and 4 at Barcombe Res. in early August.

At the end of the year a maximum of 40 at Barcombe Res. on Nov. 12th; 200 at Darwell Res. on the 19th and 120 there in December; 30 at Pett Levels on Dec. 16th and 29th and small parties totalling c.45 birds in 5 other localities.

60. **GOLDENEYE** (*Bucephala clangula*).—In the early months a maximum of at least 56 in Chichester Harbour on Jan. 15th; apart from this locality only 5 records of single birds at the coast. Inland a total of 17 birds recorded from 6 localities—Chichester G.P., Burton Pond, Knepp, Weir Wood Res., Barcombe

Res. and Darwell Res. The largest parties were 5 at Weir Wood Res. on Feb. 12th and 5 at Chichester G.P. on the 26th. Five flew E. off Selsey Bill on Mar. 25th with 8 also offshore, and one there on Apr. 15th.

At the end of the year 6 records from the coast, with a maximum of 23 in Chichester Harbour on Dec. 24th. Inland a total of 10 in 6 localities, including one on floods at Glynde Levels on Nov. 8th.

61. LONG-TAILED DUCK (*Clangula hyemalis*).—An unusual number of records totalling c.23 individuals as follows: a female at Newhaven Tidemills, first noted in Dec. 1966 remained until Mar. 18th; one at Shoreham from Jan. 15th to Mar. 22nd. Single birds off Selsey Bill on 6 dates between Jan. 21st and Apr. 15th, when one flew E., but only 2 individuals may have been involved. Single birds off East Head on Jan. 29th and in the Thorney/Pilsley Island area on Mar. 12th and 19th, flying W. off Hove on Feb. 18th and a male off Newhaven on Apr. 22nd, a late date.

In November one at Chichester G.P. from the 3rd to the 11th; one at Barcombe Res. from the 5th to 12th, when there were 2 which remained to Dec. 31st; one at Brooklands, Worthing from the 6th to 25th, when there were 2 which remained to Dec. 31st and one on floodwater at Amberley on the 12th. In December 2 W. off Selsey Bill on the 2nd and 4 W. and one offshore there on the 31st; one at Shoreham on the 9th and one at Darwell Res. on the 17th.

62. VELVET SCOTER (*Melanitta fusca*).—Records in the early months were 2 at Rye Harbour G.P. on Jan. 2nd and 9 there on Mar. 12th, an oiled bird found dead at Pagham on Jan. 19th, one at Pett Levels on the 29th and 29 in Rye Bay area Feb. 11th.

Movements were 10 E. off Selsey Bill on Mar. 4th and single birds likewise on Apr. 1st and 15th; 9 E. off Beachy Head on Apr. 16th and 5 likewise on May 6th. There were also 3 at Rye Harbour G.P. on Apr. 2nd and one on the 18th. One off Church Norton on Dec. 16th was the only other record.

64. COMMON SCOTER (*M. nigra*).—The largest numbers recorded offshore were, as usual, in Rye Bay, with up to 1,000 during January and c.350 during December. Elsewhere no party of more than 50 recorded except during spring passage, which was noticeably smaller than in other recent years.

At Selsey Bill 1,095 E. and 80 W. in 40 days watching from March to June, peaks 204 E. on Mar. 25th, 268 E. on Apr. 30th and 168 E. on May 14th. At Beachy Head 900 E. in 25 days in the same period, peaks 274 E. on Apr. 30th and 227 E. on May 6th. The Selsey figures compare poorly with the average for the previous 7 springs of 4,000 + E. and 160 W.

67. EIDER (*Somateria mollissima*).—In the first 3 months of the year c.58, 6 adult males, recorded along the coast, up to 35 off Selsey Bill during January and February being the largest party. At least 20 oiled birds were picked up in the Pagham/Selsey area, mainly in January and 8 of them were dead.

In April only 14 recorded including 8 W. off Beachy Head on the 16th; 19 E. there on May 6th and 9 likewise off Selsey Bill on the 13th. Between 2 and 5 regularly present in this area for the rest of the year increasing to 17 on Dec. 17th.

Elsewhere 2 regularly recorded between the Cuckmere and Beachy Head in August and September and, at the end of the year, a total of c.30 recorded with 12 in Bracklesham Bay on Dec. 17th as the largest party.

69. RED-BREADED MERGANSER (*Mergus serrator*).—At the beginning of the year parties totalling c.100 birds in 6 localities at the coast, with 25 off Ferring on Jan. 7th, 18 in Pagham Harbour on the 18th and 29 E. off Selsey Bill on Feb. 26th as the largest. At least 8 oiled birds found in Pagham Harbour during January and February. One on the Ouse below Lewes during February and 2 at Weir Wood Res. on Mar. 25th.

In the spring 392 E. and 102 W. off Selsey Bill in 34 days watching March to May, peaks 87 E. over Mar. 5th/6th and 68 E. on Apr. 16th. At Beachy Head 20 E. and 2 W. in 23 days in the same period. One summered in the Pagham/Selsey area and another, able to fly well, was seen at Shoreham on June 27th.

Autumn movements were 83 E. and 155 W. off Selsey Bill in 26 days watching from Oct. 24th to Dec. 31st. Elsewhere at the end of the year c.30 in Pagham Harbour on Dec. 27th was the largest party recorded.

70. GOOSANDER (*M. merganser*).—Two or 3 off East Head on Jan. 15th and one off Selsey Bill on Mar. 29th. Four in Pagham Harbour on Dec. 25th and 27th.

71. SMEW (*M. albellus*).—One at Moneypenny G.P., Rye, on Jan. 21st.

73. SHELDUCK (*Tadorna tadorna*).—On Jan. 6th 100 flew W. off Ferring, inland during the first 3 months of the year a total of c.20 recorded from 4 localities—West Harting Pond, the Amberley/Pulborough marshes, Weir Wood Res. and Darwell Res.; most were in the Amberley/Pulborough marshes with a maximum of 16 on Mar. 5th. On Apr. 23rd 200 in Thorney channel.

In the breeding season inland records were: one at Weir Wood Res. from March to September; up to 4 pairs and 2 females in the Amberley/Pulborough marshes and possibly connected with these birds were a pair at Greatham on Apr. 11th, Coates on May 24th, and one bird at Lyminster on Apr. 23rd. On the coast 3 pairs bred at Westbourne, one pair reared 4 young in the Cuckmere valley and 8 pairs reared 56 young in the Rye area. Elsewhere counts of young were 12 at Chidham on June 22nd, 42 at Thorney on the 25th and 64 on July 14th, 16 at Sidlesham Ferry on June 25th and July 13th and 32 in Pagham Harbour on July 29th. On June 4th a very small young bird by itself off Beachy Head. See also table on page 15.

75. GREY LAG GOOSE (*Anser anser*).—The bird at Glynde noted in the 1966 Report was still present on Jan. 7th. Two at Darwell Res. on Jan. 15th; satisfactory details received.

76. WHITE-FRONTED GOOSE (*A. albifrons*).—In the Selsey area 3 on Jan. 9th, 7 on the 14th and 12 on the 21st; one in Pagham Harbour from Feb. 2nd to Mar. 2nd and one, perhaps the same, at Selsey on Feb. 19th. Two over Fishbourne on Jan. 15th; 7 at Pett Levels on Jan. 22nd and 5 there on the 29th; 2 at Amberley Wildbrooks on Feb. 4th and a pricked bird at Pulborough on Mar. 11th and Petworth Park on Apr. 8th with Canada Geese.

The only record at the end of the year was of 12 at Amberley Wildbrooks on Dec. 24th.

78. PINK FOOTED GOOSE (*A. brachyrhynchus*).—Eight at Glynde Reach on Jan. 7th (KV).

80. **BRENT GOOSE** (*Branta bernicla*).—The monthly maxima in Chichester and Pagham Harbours were as follows:

	Jan.	Feb.	Mar.	Oct.	Nov.	Dec.
Chichester Harbour	2,600	795	475	9	1,200	1,000
Pagham Harbour	80	190	150	—	7	4

The January count of 2,600 on the 15th is the largest number ever recorded in the county, a record which has been broken 3 times in the past 4 years. Elsewhere in January and February 8 at the Midrips/Wicks on Jan. 6th and 10 W. off Brighton on the 22nd were the only records. Little E. movement noted in the spring, a total of only 50 birds on 5 dates in March and April.

In the autumn one W. at Beachy Head on Oct. 18th was the first recorded but little passage was noted at the coast, despite the unusually large numbers present in Chichester Harbour in November. Seven at Rye Harbour on Dec. 11th and 14 at Pett Levels on the 13th.

Birds showing the characters of the race *hrota* were 30 at Pilsley Island on Feb. 25th (JR, GAS), the largest party of this race ever recorded in the county, and one there on Apr. 8th, and one in Pagham Harbour on Nov. 9th.

82. **CANADA GOOSE** (*B. canadensis*).—The monthly maxima recorded at each locality in the winter months are tabulated below:

Locality	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Chichester Harbour	55	24	80	24	14	14	14
Amberley/Pulborough marshes	13	20	10	—	—	—	175
Knepp	10	10	11	1	0	6	5
Warham Mill Pond	20	20	20	38	19	39	39
Weir Wood Res.	—	—	—	27	25	30	25
Cuckmere Valley	—	—	—	—	16	—	—
Pevensley Levels	—	—	—	—	—	—	—

Pairs bred as follows: West Harting Pond, 3 reared 5 young; Chichester G.P., one reared one young; Warnham Park, one reared 2 or 3 young; Rye Harbour G.P., 2 reared 7 young. In addition birds also present in the Amberley/Pulborough Marshes, at Weir Wood Res. and Withyham in the breeding season.

85. **WHOOOPER SWAN** (*Cygnus cygnus*).—Seven flew W. over Church Norton on Dec. 3rd (MS).

86. **BEWICK'S SWAN** (*C. bewickii*).—In the first three months of the year there were 3 at Chichester G.P. until Mar. 11th; 2 at Darwell Res. on Jan. 1st increasing to 10 on the 15th, these remained until at least Feb. 12th; 4 at Amberley Wildbrooks on Jan. 4th increasing to 10 on the 28th, which remained until Mar. 4th, then 7 to the 15th; 9 on Glynde Levels on Jan. 7th and 3 on the 15th; 9 on Pevensley Levels on Jan. 14th increasing to 21 on the 15th and at least 10 remained in the area until Feb. 10th; 12 at Thorney on Jan. 15th, with 5 staying to Feb. 18th and one to Mar. 1st and 6 in Pagham Harbour on Jan. 15th and 2 there on the 21st.

At the end of the year 4 at Weir Wood Res. on Dec. 1st, 2 staying to the 10th; 5 S. near Haslemere on the 11th; 2 at Chichester G.P. and 4 at Pagham Harbour on the 16th and 17th and 9 at Amberley Wildbrooks on the 22nd and 27th.

97. **BUZZARD** (*Buteo buteo*).—Again well distributed with 5 pairs present in the breeding season. Of these, 2 pairs raised young with broods of 3 and 2. Single birds were seen occasionally in three other localities and appeared to be resident. One seen over Shoreham on May 2nd was the only spring record

suggesting passage and there were no autumn coastal movements. It seems possible that birds disperse within the county in autumn; there were 11 widespread records inland between September-December. Inland reports from the east of the county are unusual, but one was seen flying E. over East Grinstead on July 9th.

92. **ROUGH-LEGGED BUZZARD** (*B. lagopus*).—Of the 7-11 recorded in the autumn of 1966 at least 7 stayed to winter, as follows: Findon, 2 seen regularly together until Feb. 20th (MH, DRP, RJS *et al.*); Midrips, 2 seen regularly until Mar. 30th, with 3 on Jan. 29th (many obs.); Glynde, one on Jan. 8th (JAW); Beachy Head, one on Feb. 5th (many obs.); Lullington Heath, 2 on Mar. 9th and what were probably the same birds near Jevington on Mar. 18th (many obs.). Single birds were also seen at Graffham on Feb. 18th (ETW) and Hainaker on Mar. 28th (AR).

93. **SPARROWHAWK** (*Accipiter nisus*).—Coastal records in the early part of the year were of single birds at Seaford Head on Jan. 22nd, Beachy Head on Feb. 5th and Beachy Head on 3 dates between Mar. 11th and Apr. 30th.

Last year's increase was maintained and records were again widespread. Although 5 pairs raised only 9 young in broods of 4x2 and 1x1, there were a further 17 pairs recorded regularly that probably bred, an increase of 5 pairs. Eight of these pairs were in East Sussex. There were 14 other breeding season records of single birds in other localities and 8 inland records of birds outside the breeding season.

Autumn coastal records were of single birds at Beachy Head between Sept. 7th and Oct. 22nd, at the Cuckmere on Sept. 23rd, at Selsey Bill on Nov. 26th and Dec. 17th and over Pagham Harbour on the latter date.

95. **KITE** (*Milvus milvus*).—One at Angmering on Jan. 8th (MAJ).

98. **HONEY BUZZARD** (*Pernis apivorus*).—One at Seaford Head on Sept. 17th (SPK).

99. **MARSH HARRIER** (*Circus aeruginosus*).—A female or immature in the Sidlesham area between Sept. 4th and 12th (MS *et al.*) and an immature flying along the south shore at Darwell Res. on Oct. 1st (MHP, GAS).

100. **HEN HARRIER** (*Circus cyaneus*).—More recorded than in any year since records have been kept with 16 between Jan. 7th and Apr. 23rd and 9 between Sept. 9th and Dec. 24th although there may have been some overlapping of territory.

In the early part of the year records were: one at Amberley Wildbrooks from Jan. 7th to Mar. 19th; 5 (one a male) at the Midrips on Jan. 8th with up to 4 present to Feb. 26th; one at Duncton on Jan. 14th; one in the Findon area from Jan. 18th to Mar. 26th; one in St. Leonard's Forest on Jan. 29th; 2 in the Lullington/Friston area (one a male) from Feb. 5th to Mar. 24th and one still present on Apr. 23rd; a male in the Charlton Forest area on Feb. 26th and 2 birds between Mar. 25th and 28th; one on Ashdown Forest on Mar. 12th; one at Beachy Head on Mar. 24th and one on Pevensley Levels on Mar. 27th.

In the autumn, one in the Findon area on Sept. 9th with up to 2 there to Dec. 24th; a male on Amberley Wildbrooks from Nov. 11th to 18th; 2 at

Sidlesham on Dec. 3rd and single birds at Beachy Head, Sidlesham, Pevensey Levels, Pagham Harbour and the Midrips on various dates between Oct. 28th and Dec. 24th.

102. MONTAGU'S HARRIER (*C. pygargus*).—In the spring a male in the Chancetonbury area on Apr. 29th and one at the Midrips on May 13th. On July 17th one was seen in the east of the county.

One at the Midrips on Aug. 30th and 31st; one came in from the sea at Beachy Head on Sept. 16th and was seen there the following day; one on Pevensey Levels at the same time and a male there on Oct. 1st.

103. OSPREY (*Pandion haliaetus*).—In contrast to recent years the only record was of one at Weir Wood Res. on Aug. 19th.

104. HOBBY (*Falco subbuteo*).—A marked improvement in the breeding situation. There were 9 known pairs of which 6 pairs produced 14 young with broods of 3 at 2 sites and 2 at 4 sites. Some pairs may have been overlooked as there were 6 records of birds seen more than once in other localities in the breeding season.

There were 2 spring records at the coast; birds at Sidlesham on May 5th and 9th. Autumn coastal records were of single birds at Church Norton on Sept. 9th and at Beachy Head on Sept. 10th and 23rd.

105. PEREGRINE (*F. peregrinus*).—Single birds at Pevensey Levels on Jan. 14th; at Glynde on Jan. 22nd and 29th; at Firle Park on Feb. 9th and Mar. 31st, which may have been the Glynde bird and at Belle Tout on Mar. 12th. In the autumn, one at Sidlesham on Sept. 17th.

107. MERLIN (*F. columbarius*).—More records than usual in the first part of the year, with up to 2 at the Midrips to Feb. 25th. Single birds were seen at Glynde on Jan. 1st; at Pagham on Jan. 5th and at Lullington on Feb. 11th. Between Apr. 1st and 14th a female was seen regularly on the Downs near Findon.

Except for one seen on the hills behind Brighton on Dec. 10th, all autumn reports came from the coast with single birds at Beachy Head on Oct. 1st and 15th and Nov. 5th; at Hove on Oct. 15th which came in from the sea and flew NW. inland; at Selsey Bill on Oct. 21st and at Langney Point on Dec. 28th.

110. KESTREL (*F. tinnunculus*).—One came in from the S. at East Head on Jan. 22nd. Spring movements were one in S-N. at Selsey Bill on Apr. 15th and one out S. there on the 24th. In the autumn one came in S-N. at Beachy Head on Sept. 7th, totals of 4 in S-N. and 6 out N-S. at Selsey Bill between Sept. 30th and Nov. 19th and one flying NW. at the Midrips on Oct. 5th.

Breeding Survey

There was a further increase in the number of records received but little substantial increase in the area searched. The increase in records resulted in more complete information from existing areas. The records have been analysed as described in previous reports and are summarized below.

1967 RECORDS

Pairs proved to breed	57	Pairs probably breeding	86	Possible breeding pairs	59
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The further slight increase, compared with 1966, suggested by these figures is supported by the table of densities below, but appears to be confined to the coastal plain and the Weald (this figure should be compared with the 1965 figure of 4.4), although the downland densities are confirmed at the higher levels suggested by the 1966 figures. An area of c.20 square miles, comprising the bulk of Ashdown Forest, was also thoroughly examined and 6-8 breeding pairs found, a density of one pair to between 3.3 and 2.5 square miles.

POPULATION DENSITIES

	Area surveyed (square miles)	Number of pairs	Square miles per pair
Coastal Plain	29	15	1.93
Downland	11	4	2.75
Weald	33.2	12	2.76
	43	18	2.39
	79.5	19	4.18
	8	3	2.65

NOTE: These areas are the same as in 1966.

BREEDING SUCCESS

Pairs proved to breed	Pairs known to have raised young	Young raised (left nest)	Average brood size	Pairs known to have failed
57	41	86+	2.2+	5

Once again the average brood size, based on young fledged, hardly varied from the previous 3 years but the number of pairs which failed to rear young was the highest in the period. Precise details were not recorded for 11 proven breeding pairs. Two nests were investigated for clutch size and both contained 2 eggs. One was probably robbed and the other hatched successfully but the young died at c.10 days old. Up to 14 seen in the air together over Harrow Hill between Aug. 1st and 14th, many of which were juveniles.

The survey has now been completed and a paper detailing the results in full is in preparation. All the 1967 records were made available to the Nature Conservancy.

117. QUAIL (*Coturnix coturnix*).—One calling at Shoreham on Mar. 8th. One at Selsey Bill on May 15th.

Once again rather few summer records which were: one at West Chillington on June 6th; one near Cocking on June 11th; 2, possibly 3, at Kingly Vale on June 23rd; one near Saddlecombe and one at Willington on July 17th and one near Steyning on Aug. 10th.

Autumn records at the coast were 2, one dead, on the beach below the Seven Sisters on Aug. 3rd and one at Sidlesham on Sept. 16th.

120. WATER RAIL (*Rallus aquaticus*).—In the first 3 months of the year a total of c.21 recorded in 11 localities, mainly along the coast.

In the breeding season pairs were recorded as follows: Church Norton, 2; Shillingee Park, one; Lurgashall Pond, 2; Burton Pond, 2. Breeding was not proved but thought likely in each case. A family party was seen at the Wicks on July 22nd, a new breeding site, and a single bird was present at Weir Wood Res. from July 7th to the end of the year. There were also September records for Bayham, Darwell Res. and Rye Harbour G.P.

In November and December a total of c.25 recorded in 15 localities.

121. SPOTTED CRAKE (*Porzana porzana*).—One at Church Norton on Nov. 12th (ADP).

125. **CORNCRAKE** (*Crex crex*).—No reports for the first year on record.

127. **COOT** (*Fulica atra*).—Monthly maxima at stated localities are tabulated as in 1966, a dash indicates no figures. The November figure for Chichester G.P. is for the Hunston group of pits only.

Locality	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Manhood End	850	140	67	—	—	—	63
Chichester G.P.	—	630	215	650	—	485	970
Pagham Lagoon	125	125	125	—	275	275	275
Swanbourne Lake	—	79	—	62	—	56	—
Weir Wood Res.	250	—	40	30	250	—	250
Barcombe Res.	—	20	—	—	12	—	—
Darwell Res.	—	—	—	180	230	395	410
Pett Levels	200	120	66	—	—	—	150
Rye Harbour G.P.	—	300	—	—	—	—	—

Waders

The monthly wader counts in Chichester and Pagham Harbours were continued in 1967, although due to the foot-and-mouth epidemic no count along the whole coastline in December could be made. Full details of these counts are given on page 61. The systematic list is largely confined to records outside the scope of these counts, which should be consulted in conjunction with the list for all the 1967 information.

131. **OYSTERCATCHER** (*Haematopus ostralegus*).—C.80 at Rye Harbour in the first 3 months of the year and 60 at Littlehampton on Mar. 11th. An inland record from Weir Wood Res. on Feb. 4th.

Breeding pairs were: Chichester Harbour, one nest c/2 found June 19th; Pagham harbour, 2, one of which had a nest c/2 in a potato field; Rye marsh, one reared 2 young; Rye Harbour G.P., 3 reared 10 young; Midrips/Wicks, one. Summering birds were c.200 in Chichester Harbour, c.25 in Pagham Harbour and c.30 at Rye Harbour where there were also c.75 on July 8th.

Five came in from the SE. and went W. at Selsey Bill on Aug. 12th and one likewise on the 13th. C.550 on Thorney airfield on Aug. 21st and c.200 at Rye Harbour on Nov. 10th.

133. **LAPWING** (*Vanellus vanellus*).—Cold weather movements S. and W. were recorded in the January cold snap, when 2,000 flew W. and 510 S. at Sidlesham on the 7th, and on the 8th movements noted at 6 localities totalled 850 S. and 10,200 SW. Possible or probable duplications are eliminated from these figures and the main movement was at Rye where c.10,000 flew SW. in 3 hours.

Flock counts in the first 3 months of the year were: 200 at Weir Wood Res. on Jan. 1st; c.2,000 at Wartling on Jan. 29th; c.200 at Harting and c.750 at Amberley Wildbrooks on Feb. 4th and c.1,000 at Glynde on Mar. 4th.

Counts of breeding pairs were: Rake, 4; Chichester G.P., 4; Arun valley, 98 from Amberley Wildbrooks to Littlehampton; Rackham Hill, 9 on c.500 acres and Well Bottom, 8 on c.500 acres, both downland samples; Pevensey Levels, 6 along Wallers Haven N. of Wartling; Rye marsh and Harbour, 59; Midrips/Wicks, 8.

*See also wader count tables page 62.

Few flock counts recorded for the end of the year but a widespread cold weather movement over Dec. 9th and 10th, with totals of c.3,000 S. in 3 localities on the 9th and 250 W. and 270 S. in 5 localities on the 10th.

134. **RINGED PLOVER** (*Charadrius hiaticula*).—The only large numbers recorded away from the main estuaries were up to 100 at Ferring in January and February, 95 at Shoreham on Jan. 1st and c.105 there on Aug. 27th and 40 at the Midrips on June 27th.

More breeding pairs noted than in 1966, as follows: Pilsley Island, 4-5, at least one rearing young; Thorney Island, one; Pagham Harbour, 5-6, 2 rearing young; Aldingbourne G.P., one reared 2 young; Newhaven Tidemills, one; Barcombe Res., one or more; Cuckmere Haven, at least one; Crumbles, 2 seen May 30th; Rye Harbour G.P., 14, all rearing young; Midrips/Wicks, 8.

In the evening of Aug. 19th c.30 left Pagham Harbour very high to SW.

135. **LITTLE RINGED PLOVER** (*C. dubius*).—One in Pagham Harbour on Apr. 30th and May 1st. No breeding records but a bird seen in a former breeding site on June 22nd.

Single birds at the Midrips on July 15th, Aldingbourne G.P. and Pagham Harbour on July 16th, Weir Wood Res. on Aug. 6th, Sidlesham Ferry on Aug. 20th, Pagham on Sept. 5th and Rye Harbour G.P. on Sept. 13th.

136. **KENTISH PLOVER** (*C. alexandrinus*).—A male in Pagham Harbour on May 13th (RJJ, ETW).

139. **GREY PLOVER** (*Pluvialis squatarola*).—There were 50 in Pagham Harbour on Jan. 24th, 50 at Ferring on Feb. 7th and 40 at Rye Harbour on Mar. 12th. One at Barcombe Res. on May 5th. Inland records are very unusual. C.15 summered in Pagham Harbour and there was one at the Midrips on June 20th.

140. **GOLDEN PLOVER** (*P. apricaria*).—Flock counts in the first part of the year were: Selsey/Sidlesham, c.1,000 January to March, still c.80 in mid-April and 6 at Selsey on May 6th; Pevensey Levels, 700 on Jan. 1st, 500 on Feb. 4th and 100 on Mar. 27th; Winchelsea marsh, c.450 to Jan. 6th. These left the area in the cold snap when c.2,000 also flew SW. at Rye on Jan. 8th. Sixty at Glynde and 33 at Newhaven Tidemills on Jan. 7th; 500 at Pagham on Jan. 9th, and 175 on Mar. 3rd; 150 at East Head on Jan. 14th; 100 at Thorney Island on Jan. 24th and c.1,000 at Earnley on Feb. 22nd. One in s/p (and showing the characters of the race *apricaria*) on Pevensey Levels on May 29th, a very late date.

Autumn arrival was very early with 4 at Thorney on July 22nd and 6 parties totalling c.145 birds in August. There were also 70 at Chidham on Sept. 2nd. Flock counts at the end of the year were: 200 at Selsey on Nov. 4th and 800 there on Dec. 3rd; c.1,000 at Pagham on Nov. 18th and 400 in the Harbour on Dec. 9th; 200 at East Head on Dec. 20th; and 250 at Climping, a maximum of 650 on Pevensey Levels and 80 on Winchelsea marsh during December.

Birds showing the characters of the northern race, *atlifrons*, were 6 at Selsey in mid-April and several birds in s/p in a party of 12 at Pagham on Aug. 17th.

*See also wader count tables page 62.

At Beachy Head 520 E. between Apr. 26th and 30th. C.70 at Rye Harbour on Apr. 30th and 30 there on May 3rd. One at the Midrips/Wicks on June 20th.

156. GREEN SANDPIPER (*Tringa ochropus*).*—One at Chichester G.P. on Jan. 17th and one on Lewes Brooks on Feb. 18th. Four records in December. Spring passage was noted unusually early with at least 7 birds in March. It continued to about June 9th and, as usual, numbers were small. Autumn passage noted from June 15th to mid-November with peak periods in the third week of August, 36 birds, and the second week of September, 30 birds. Monthly totals were:

Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
7	9	2	3	26	67	52	8	1

157. WOOD SANDPIPER (*T. glareola*).*—On Feb. 11th MCR saw one on the Ouse at Iford, the first February record for the county. No spring records. In the autumn 10 recorded between Aug. 7th and Oct. 5th, and except for one at Weir Wood Res. on Aug. 16th all were at the coast.

159. COMMON SANDPIPER (*T. hypoleucos*).*—Seven wintering birds in 4 localities in January and February and 3 December records.

Spring passage was first noted on Mar. 27th, an early date, and continued to May 28th; numbers were rather larger than in previous 2 years. Autumn passage first noted on June 18th continued until Nov. 12th. Numbers were also larger than usual and those in August were exceptional. The peak period was the first week of August when c.105 birds were seen, including a remarkable flock of 50 along the Ouse near Lewes on the 3rd. Inland records came from 8 localities in spring and 7 in autumn. Monthly totals were:

Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
1	20	14	1	60	200	43	4	3

161. REDSHANK (*T. totanus*).*—In the early months there were up to 40 at Newhaven Tidemills, 30 at Rye Harbour and 30 at the Midrips/Wicks. Up to 100 at Shoreham in December.

Breeding Survey

A total of c.151 pairs found. Counts were again made in all the major levels, except Brede Levels and included the whole of the Arun valley N. to Pulborough for the first time. All the known inland sites were also visited except Lavant, and records from 3 more were received. Little information on breeding success was recorded but single pairs were noted with young at Itchenor and Wet Levels, and the pair at Chichester G.P. failed. The figures from areas counted in each of the years 1966 and 1967 show no overall change but local fluctuations were again apparent. This survey is now complete and a paper discussing the results in full appears on page 53.

Area	Extent Surveyed	Number of pairs	Area	Extent Surveyed	Number of pairs
Chichester Harbour	Thorney Island	9	Selsey-Sidlesham Ferry-		
	Fishbourne Creek and S.F.	6	Bracklesham		
	Bosham	2	Pagham Harbour	Marshes behind N. wall	c.12
	Chidham	2			2
	Itchenor	1			

*See also wader count tables page 62.

Area	Extent Surveyed	Number of pairs	Area	Extent Surveyed	Number of pairs
Lower Arun valley	Amberley to Littlehampton	30+	Pett Levels		0
Amberley/Pulborough marshes	Whole area	11	Rother Levels	Wet Levels Newenden/Bodiam area	4
Adur Levels	Shoreham Toll Bridge to Wyckham Farm, W. of river	c.11	Rye Marsh and Harbour		1
			Midrips/Wicks		13
			Harting		7
Ouse valley	S. of Lewes	4	Chichester G.P.		c.4
Cuckmere valley	All N. to Alfriston	5	Sutton		1
			Tillington		1
Glynde Levels	Area round Glynde Reach	c.8	Buckham Hill		1
Pevensy Levels	Horsey Levels Marshes E. of Pevensy to Boreham Street road	7	Barcombe Res.		c.3
		5			
			TOTAL		c.151

162. SPOTTED REDSHANK (*T. erythrophus*).*—No wintering birds at the beginning of the year but 2 at Manhood End on Mar. 11th. In December single birds at Pagham Harbour and Chichester G.P.

Few on spring passage. One possibly summered in the Pagham area. Autumn passage noted from about June 25th to Nov. 19th, with peak periods in the first week of August, 70 birds, and the third week of September, 33 birds. The largest flocks were 49 at Thorney on July 22nd and 23rd with 69 there on Aug. 8th and 30 on Oct. 8th. Inland records came from Barcombe Res. in the spring and Chichester G.P., Northase and Pevensy Levels in the autumn. Monthly totals were:

Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
8	4	3	52	80	45	36	3

165. GREENSHANK (*T. nebularia*).*—In the early months one wintering in Chichester Harbour, and one at Rye Harbour on Jan. 2nd. One in Chichester Harbour in December.

Spring passage noted between Apr. 9th and June 12th, and one apparently summered in the Pagham area. Autumn passage noted from July 5th to Nov. 12th, with peak periods in the third week of August, 57 birds, and the third week of October, 49 birds. The largest flock was 30 at Chidham on Sept. 23rd. Inland records came from Barcombe Res. in the spring and from Chichester G.P., Amberley Wildbrooks, Crawley, Weir Wood Res. and Darwell Res. in the autumn. Monthly totals were:

Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
11	4	2	48	68	68	57	2

169. KNOT (*Calidris canutus*).*—One at Barcombe Res. on Jan. 11th, the third inland record for the county. Nine flew E. at Selsey Bill on Apr. 9th, 17 did so on May 7th and 16 on the 14th. Twenty in Pagham Harbour on May 20th and 6 there on June 18th.

170. PURPLE SANDPIPER (*C. maritima*).—Rather more widely recorded than in most recent years. All records were: Selsey Bill, one in February, 2 on Mar. 4th, 4 or 5 on Nov. 4th and one W. on the 11th; Pagham Harbour, *See also wader count tables page 62.

passage from about July 9th to Nov. 4th but no clearly defined peaks. Monthly totals were:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
24	23	106	71	10	1	8	14	20	15	1	18

185. **AVOCET** (*Recurvirostra avosetta*).—The bird at Pilsey Island first noted in late 1966 was still present on Jan. 24th. In May a flock of 14 at Pagham Harbour on the 13th and 2 flying W. at Beachy Head on the 28th.

187. **GREY PHALAROPE** (*Phalaropus fulicarius*).—Single birds at Church Norton on Sept. 9th and Glynde Levels on Nov. 3rd.

188. **RED-NECKED PHALAROPE** (*P. lobatus*).—One at Rye Harbour G.P. on Aug. 25th (JCS).

189. **STONE CURLEW** (*Burhinus oedichenus*).—Single pairs or birds located in 4 areas in the breeding season and 2 pairs present in another site. Two at Ambersham Common on Aug. 26th.

193. **ARCTIC SKUA** (*Stercorarius parasiticus*).—First recorded on Mar. 27th at Selsey Bill and a total of 52 E. and 6 W. there in 26 days watching to June 7th; 20 E. on May 4th was the largest movement. At Beachy Head 42 E. between April 30th and May 7th, the largest movement was 14 E. on Apr. 30th.

In the autumn c. 40 recorded along the coast between July 2nd and Nov. 4th but no large movement noted.

194. **GREAT SKUA** (*S. skua*).—An unusual number of records. In the spring a total of 8 E. and one offshore at Selsey Bill between Apr. 16th and May 28th, the latest spring record for the county. These records included a party of 3 E. on Apr. 30th.

In the autumn single birds W. off Beachy Head on Sept. 9th and Oct. 8th and E. off Selsey Bill on Oct. 7th and 11th, with one W. there on the 16th. One off Langney Point on Oct. 8th.

195. **POMARINE SKUA** (*S. pomarinus*).—An exceptional year for the species with a total of 21 recorded, all in the spring. It is of interest that up to 1961 there were under 10 acceptable spring records but the species is now occurring increasingly as a spring migrant instead of an autumn vagrant. Records were: at Selsey Bill a total of 10 E. on 3 dates between Apr. 30th and May 20th, including a party of 4 on Apr. 30th (MAJ, RJJ, MS, ETW *et al.*). At Beachy Head a flock of 11 E. on Apr. 30th (BAEM).

198. **GREAT BLACK-BACKED GULL** (*Larus marinus*).—The following counts were received: c.250 at Bulverhythe on Jan. 9th; a maximum of c.400 at Shoreham on Jan. 21st and Feb. 2nd; c.100 at Pett Levels on Jan. 29th; up to 60 in the Selsey area in January and February; 70 at Pagham on Nov. 12th and 126 at Chichester G.P. on Dec. 24th.

199. **LESSER BLACK-BACKED GULL** (*L. fuscus*).—In January and February c.55 recorded from 8 localities. No very large spring movements noted but 31 E. at Selsey Bill on Apr. 9th and 58 E. there over Apr. 15th/16th.

2 wintering in January and February and 3 in December; Climping, 5 on Feb. 12th; Lancing, 4 on Dec. 10th; Ovingdean, one on Jan. 10th; Newhaven, 14 from January to Mar. 19th with 3 still present on May 6th and in the latter months present from Oct. 29th with a maximum of 18 recorded. Langney Point, 4 on Feb. 3rd; Bulverhythe, one on Sept. 8th and one or 2 wintering at the end of the year; Fairlight, 3 on May 13th, a very late spring date.

171. **LITTLE STINT** (*C. minuta*)*.—One at Thorney on Jan. 15th and one there on Apr. 23rd. One at Sidlesham Ferry from Mar. 20th to 23rd and 2 at Church Norton on May 30th.

More numerous in the autumn than usual with a total of c.75 recorded between July 22nd and Nov. 11th. The total includes parties of 17 at Pilsey Island on Sept. 17th and of 18 at Sidlesham Ferry on the 18th. Inland records were one at Barcombe Res. on Sept. 11th, one at Chichester G.P. on Sept. 15th and 3 on the 18th and one on Glynde Levels on Nov. 11th.

173. **TEMMINCK'S STINT** (*C. temminckii*).—Two at Sidlesham Ferry on May 13th (RJJ, ETW).

178. **DUNLIN** (*C. alpina*)*.—In the first 3 months of the year there were c.300 at Goring/Ferring, a maximum of 400 at Shoreham on Feb. 11th, a maximum of 160 at Newhaven Tidemills on Jan. 28th, up to 70 at Rye Harbour and 50 at the Midrips.

One came in S-N. at Selsey Bill on July 23rd. On Aug. 19th 50 departed high to the SW. from Pagham Harbour in the evening and 120 flew W. at Beachy Head on Oct. 19th. In November and December up to 200 at Goring/Ferring, 600 at Shoreham and 120 at Newhaven Tidemills.

Inland records during the year were one at Barcombe Res. on Jan. 11th, a maximum of 6 there during April and 4 on May 5th and 6th; 6 at Wiggonholt on Mar. 11th; one at Amberley on the 19th and 68 at Wet Levels on the 24th, an unusually large flock to be seen inland. On July 29th 4, one of which had been ringed at Skokholm, Pems. on May 13th, were picked up dead on West Harting Down. One of these was certainly of the northern race *alpina*.

119. **CURLEW SANDPIPER** (*C. ferruginea*)*.—No spring records. More recorded in the autumn than in any year since 1960 although the total was only c.19; all were between Aug. 9th and Oct. 24th. Most recorded from Sidlesham where there were 10 on Sept. 21st.

181. **SANDERLING** (*C. alba*)*.—In the first three months of the year there were c.300 at Climping, c.250 at Ferring and 50 at Rye Harbour. Forty at Camber on Jan. 10th and 60 there on Apr. 18th.

At the end of the year there were 89 at Climping on Nov. 23rd, c.200 at Ferring in December, 30 at Camber on Dec. 10th, 40 at Rye Harbour on Nov. 20th and 150 at East Head on Dec. 30th. On Nov. 4th 140 flew E. off Selsey Bill.

184. **RUFF** (*Philomachus pugnax*)*.—More records than in 1966, mainly in the spring, and reported in every month. The spring passage peak occurred in late March and included 42 on Wet Levels on Mar. 24th. In April 30 on Amberley Wildbrooks on the 5th. One at the Midrips on June 20th. Autumn

*See also wader count tables page 62.

No breeding records received. In the autumn some large flocks again seen at Chichester G.P. with c.250 on July 22nd, a maximum in August of c.580 on the 26th, and in September of c.400 on the 15th; also 50 on Sept. 22nd and 72 on Oct. 24th. At Selsey Bill W. passage totalled c.1,100 birds in 77 days watching from July to December; 230 on July 30th was the largest movement observed.

In December a total of c.180 recorded in 4 localities. Most were in the Horsham district with regular roosts containing c.125 birds; the species now seems well established as a winter resident in this area.

200. HERRING GULL (*L. argentatus*).—Breeding records were as follows: chalk cliffs, Seaford to Eastbourne, 200 occupied nests; St. Leonards, 2 or 3 pairs known and others suspected; Rye Harbour G.P., 31 pairs attempted to breed.

At Selsey Bill c.1,315, c.70% of which were adults, flew W. on June 7th and c.1,600, c.90% immatures, did so on July 2nd.

201. COMMON GULL (*L. canus*).—The only flock counts recorded were: c.130 off Selsey Bill on Jan. 12th, up to 100 there in April and 300 in May, and 200 off Rottingdean on Dec. 11th. A large E. movement at Selsey Bill and Beachy Head over Apr. 15th/16th. On the 15th movement at Beachy Head reached c.150 per minute and on the 16th c.1,040 passed off Selsey Bill.

202. GLAUCOUS GULL (*L. hyperboreus*).—An unusual number of records as follows: single birds flying E. off Selsey Bill on Mar. 5th (RFP, ETW, IRW), at Church Norton on Mar. 15th (CMJ) and flying E. off Selsey Bill on Apr. 30th (MAJ, RJJ, ETW). One, first seen on July 5th (GAS), noted at intervals in the Hove area until Dec. 31st. Single birds at Paghham on Aug. 21st (GRG), Worthing on Dec. 4th and 5th (PM), Selsey Bill on Dec. 16th (DSF) and Sidlesham Ferry on the 31st (NPH). Only 3 birds may be involved in the autumn records and all were immature.

203. ICELAND GULL (*L. glaucoideus*).—An adult at Selsey Bill on Apr. 15th (RJJ).

205. MEDITERRANEAN GULL (*L. melanocephalus*).—One at Sidlesham Ferry on Feb. 12th, one at Hove from Feb. 18th to 22nd and one in s/p off Selsey Bill on Mar. 18th were the only records for the first half of the year.

Single birds at Church Norton on Aug. 19th, Shoreham Beach on Oct. 28th, Hove from Oct. 29th to Dec. 2nd, Sidlesham Ferry on Nov. 26th and Paghham Harbour on Dec. 17th and 24th.

Although c.50% of the records from 1963 to 1965 referred to immatures there was a sharp decline in 1966 and 1967 with only 25% in 1966 and none in 1967 being recorded as immature.

207. LITTLE GULL (*L. minutus*).—One at Lancing on Jan. 30th. In the spring single birds E. off Selsey Bill on Apr. 22nd, 30th and May 7th; at Beachy Head one E. on Apr. 30th, 3 on May 5th and one on the 6th. Two at Rye Harbour on May 22nd and 3 there on June 1st.

In the autumn c.26 recorded between July 22nd and Dec. 3rd. Most occurred in the first half of September when 11 were seen. Birds were recorded inland at Chichester G.P. with up to 3 in September and one on Oct. 21st, and Darwell Res. with 3 on Sept. 17th and 19th.

208. BLACK-HEADED GULL (*L. ridibundus*).—C.155 pairs bred at Rye Harbour G.P., rearing c.160 young.

No organised counts were made but the following were noted: c.1,500 at Selsey during January and February declining to c.50 by late March; c.3,000 at Shoreham on Feb. 3rd; c.1,300 at Thorney on Aug. 8th; a maximum of c.2,000 at Chichester G.P. on Sept. 9th; c.1,000 at the Midrips on Sept. 24th; c.4,000 on Worthing Beach on Sept. 28th; a maximum of c.1,400 at Selsey Bill on Nov. 4th and c.1,000 at Portslade in November and December.

209. SABINE'S GULL (*Larus sabini*).—One at Newhaven on Oct. 11th and 12th (RHC); the first record since 1959.

211. KITTIWAKE (*Rissa tridactyla*).—An adult at Weir Wood Res. on Feb. 19th and a total of 9 off Selsey Bill in January and February. Spring movements there were 110 E. and 14 W. in 34 days watching March to May, peaks 38 E. on May 6th and 24 likewise on the 24th. At Beachy Head 22 E. on May 6th.

C.6 recorded in June and July and 3 pairs were present in the middle of a Herring Gull colony near Cliff End on June 3rd.

Few in autumn; at Selsey Bill 13 E. and 32 W. in 77 days watching July to December and a maximum of 11 W. off Beachy Head on Oct. 19th. Two other records for November.

212. BLACK TERN (*Chitonias niger*).—The first recorded was one at Chichester G.P. on May 3rd and 22 there on the 4th, when 62 also flew off E. Selsey Bill and 19 E. off Hove. The only other significant spring movement was 24 E. off Selsey Bill on May 14th.

In the autumn 3 at Weir Wood Res. on July 23rd were the first and passage continued exceptionally late. A total of c.115 birds were recorded, including c.14 from 7 localities in the last 10 days of October and 3 single birds in November—at Chichester G.P. on the 5th, Thorney on the 10th and Glynde Levels on the 12th. There is only one other November record for the county. Inland records came from Chichester G.P., Patching Pond, Glynde Levels and Weir Wood, Barcombe and Darwell Res.

214. WHISKERED TERN (*C. hybrida*).—One in Chichester Harbour on Sept. 11th (KS). This record has been accepted by Brit. B. and is the second for the county.

215. GULL-BILLED TERN (*Gelachelidon nilotica*).—Single birds flew E. off Selsey Bill on Apr. 30th and May 5th (MAJ, RJJ, ETW). These records have been accepted by Brit. B.

216. CASPIAN TERN (*Hydroprogne ischegrava*).—One in Chichester Harbour on Sept. 11th (KS). This record has been accepted by Brit. B.

217. COMMON TERN (*Sterna hirundo*).—Seventy-three pairs bred at Rye Harbour G.P. Despite a poor start to the season, when c.50 pairs were robbed and forced to move to a different site, over 80 young were eventually raised. Eleven nests with eggs at another site on June 19th.

COMMON/ARCTIC TERN (*S. hirundo/paradisaea*).—First recorded on Apr. 15th at Selsey Bill and between then and the end of May totals of 1,490 E. and 32 W. there in 19 days watching, peaks 970 E. on May 4th and 306 E. on May 14th. At Beachy Head 133 E. on May 5th was the only large movement noted. C.60 off Selsey Bill at the end of June.

In autumn at Selsey Bill 77 E. and 2,190 W. in 53 days watching from July 1st to Oct. 30th, with a peak of 650 W. on Aug. 24th. At Beachy Head 30 E. and 680 W. in 41 days July to October, with a peak of 400 W. on Aug. 27th. Rather more inland records than usual, possibly as a result of the frequent gales with birds being recorded at Chichester G.P., Petworth Park, Burton Pond and Weir Wood Res. The last record was one at Chichester G.P. on Nov. 5th.

219. ROSEATE TERN (*S. dougalli*).—One flew E. off Hove on May 4th, one E. off Selsey Bill on the 6th and a total of 7 E. there on the 14th. One in Pagham Harbour on May 27th and 2 off Selsey Bill on June 25th. Satisfactory details of all these records received.

222. LITTLE TERN (*S. albigrons*).—First recorded on Apr. 15th at Selsey Bill. Spring movements small as usual; 40 E. off Worthing on May 10th being the largest recorded.

A total of 87 breeding pairs noted in 4 localities. It is encouraging to find significant increases in both Pagham and Rye Harbours compared with 1966 but there was no overall increase. Counts were as follows: Pagham Harbour c.44 pairs—breeding success seemed good and the area suffered little disturbance; Rye Harbour 19 pairs; Midrips/Wicks 9 pairs. At another site 15 nests were found on June 19th. A pair also summered at Chichester G.P. without breeding.

Three October records, the last being on the 15th at Weir Wood Res.

223. SANDWICH TERN (*S. sandvicensis*).—First recorded on Mar. 25th at Selsey Bill. Spring movements there were 1,210 E. and 50 W. in 24 days watching in April and May, peaks 360 E. on Apr. 30th and 155 E. on May 6th. At Beachy Head 1,160 E. in 19 days from Apr. 8th to June 6th, peak 200 on Apr. 24th.

No breeding record but present offshore during June as usual; 52 E. off Selsey Bill on the 25th were the most noted.

In the autumn 73 E. and 580 W. at Selsey Bill in 47 days watching from July 1st to Oct. 21st. Few at Beachy Head, a maximum of 30 W. on Aug. 20th.

224. RAZORBILL (*Alca torda*).—In January and February c.20 oiled birds picked up along the coast, all in the Pagham/Selsey area; 15 were dead. Single birds also noted oiled in March, May, June and December.

226. LITTLE AUK (*Plautus alle*).—One off Selsey Bill on Nov. 4th (DSF) and single birds flying W. there on Nov. 11th (DSF, BAEM) and Dec. 31st (DSF, HPKR).

227. GUILLEMOT (*Uria aalge*).—In January and February c.60 oiled birds noted along the coast, 35 of which were found dead. Of 16 picked up dead at Pagham 3 were of the race *aalge* and an oiled bird of this race was found there on May 27th. Three oiled birds were found dead at Felpham on Dec. 31st.

232. STOCK DOVE (*Columba oenas*).—The only large flocks noted were 70-100 at Chantconbury on Jan. 29th, c.40 at Lullington on Mar. 4th and c.120 at Chilgrove in April. In the breeding season recorded from 25 localities. Those containing more than one pair were: Stanstead Park, 3 pairs; Chidham, 8 birds on Aug. 19th; Sutton, 2 pairs; Beachy Head, 2-3 pairs; Rye Harbour up to 16 birds in June and July; Midrips/Wicks, 4 birds on May 7th.

In the 3 years 1965-1967 the species has been recorded in 51 localities in the breeding season, well distributed over the whole county. Only in 9 of these localities were more than one to 2 pairs indicated.

235. TURKLE DOVE (*Streptopelia turtur*).—One in Clapham Woods on Apr. 29th was the first record. Few on spring passage on the coast; a maximum of 14 at Selsey Bill on May 14th.

One came in from the S. at Beachy Head on Sept. 16th. There were 2 November records there; 2 on the 5th and one on the 11th was the latest record for the county. These birds were consorting with Collared Doves.

COLLARED DOVE (*S. decorecto*).—The paper published in the 1966 Report should also be referred to for this species which continues to spread rapidly in the county. In 1967 it was recorded in 40 localities, 19 of which were new (5 on the coast and 14 inland). The spread inland may thus be accelerating. Breeding season records came from 32 of these localities and definite increases during the year, compared with 1966, were recorded in 8 areas: Aldwick, Lyminster, Burgess Hill, Lewes, Seaford, Eastbourne, Bexhill and Rye.

In the first 3 months flocks totalling c.330 birds were recorded in 5 localities. Breeding season counts were: Selsey village, 26 pairs; Lyminster, 3 pairs; Five Oaks, 4-5 pairs; Lewes, c.4 pairs; Fittle Road, Seaford, 6+ pairs; Bexhill Borough, c.360 pairs in c.8 square miles; St. Leonards, 70-100 birds in April; Cadborough, 5 birds summered without breeding. At the end of the year flocks totalling c.700 birds recorded from 13 localities.

237. CUCKOO (*Cuculus canorus*).—A very early bird at Harting on Mar. 23rd. At least 8 birds in the Arun Valley in the breeding season between Amberley Wildbrooks and Offham.

238. GREAT SPOTTED CUCKOO (*Clamator glandarius*).—One was picked up dead at Shripney, near Bognor, on Aug. 4th. The specimen is now in the Bognor Museum (per WWAP). The record has been accepted by *Brit. B* and is the first for Sussex.

Owl Species.—Please note that all records are very urgently required.

241. BARN OWL (*Tyto alba*).—Records were received from nearly 50 localities. Although these referred to single birds in 31 instances, a number of these were almost certainly paired. There were 16 known pairs and 7 of these were considered to have raised young with an average brood size of 2. Nearly all records were from Mid or West Sussex.

246. LITTLE OWL (*Athene noctua*).—A slight decline in numbers was apparent in contrast to an increase in records of Tawny Owls and 48 pairs were located compared with 55 in 1966; all were in Mid or West Sussex. Pairs were located in the following general areas of 10 miles radii: Chichester, 22; Worthing, 10;

Brighton, 2; 9 pairs located within 8 miles radius of Haywards Heath and 5 pairs likewise around Midhurst.

Five young were known to have been raised. There were 8 records of single birds.

247. TAWNY OWL (*Strix aluco*).—By continuing last year's system of plotting calling birds and aided by a great increase in visual records, an estimated total of 116 pairs located. Of 19 other birds recorded singly at least 9 were probably paired making 125 pairs in all—an increase of 44 over 1966. This does not necessarily infer an increase in population but rather increased attention being paid to the species by observers. There were no records from the Rogate/Iping area, Friston Forest or East Sussex in general. At least 16 young were raised with an average brood size of 2. Pairs were located in the following general areas of 10 miles radii: Chichester, 34; Worthing, 20; Brighton, 9; 22 pairs located within 8 miles radius of Haywards Heath and 9 pairs likewise around Midhurst. In an area of 2 miles radius around Horsham 20 pairs were located.

248. LONG-EARED OWL (*Asio otus*).—One found dead at Camber on Feb. 22nd. One hunting at dusk in a possible breeding area on July 10th; this was near to where a bird had been reported in March by a forester. The only other record was of one seen in a thicket to the N. of Pagham Harbour on Aug. 22nd.

249. SHORT-EARED OWL (*A. flammeus*).—A further decrease in records and birds stayed any length of time only at Selsey S.F. (January to March) and at the Midrips (Jan. 29th to Apr. 24th). In the early part of the year inland records were: Pevensey Levels, 3 on Jan. 15th; Glynde, one on Jan. 21st and 29th and one at Bramber on Mar. 24th. One, apparently exhausted, on the cliff-top at Birling Gap on Apr. 13th.

An unusual record of one at Stane Street, Bignor Hill on Aug. 29th. Other inland records were of single birds in the Chantonbury area on Oct. 3rd and Nov. 22nd and 3 on Pevensey Levels on Dec. 24th.

252. NIGHTJAR (*Caprimulgus europaeus*).—First recorded on May 8th in Ashdown Forest, and one at Angmering Park on Sept. 22nd was the last.

Breeding Survey

An estimated total of 75 pairs were found in 26 localities, more than double the number reported in 1966. MJM found 6 nests in 120 acres of young plantations in Charlton Forest; each nest was on an old beech stump raised a few inches above the ground. In similar habitats in St. Leonard's Forest c.6 males were heard 'churring' in c.600 acres, and at Hindleap Warren there were c.12 in c.1,850 acres. In no other locality were more than 3 pairs indicated.

Although the increase in numbers reported in this first survey year was gratifying the observer coverage for the county was extremely sparse (no records for the extreme east of the county), and the figures above are unlikely to give any real indication of the total population of this species. The survey is continuing in 1968 and all records, even of only single birds, will be very welcome.

255. SWIFT (*Apus apus*).—First recorded at Chichester G.P. on Apr. 21st with a general arrival taking place over the next 10 days: c.1,000 at Chichester G.P. on May 3rd. The largest arrival noted at Selsey Bill was 105 S-N. over May 13th/14th; at Beachy Head c.100 S-N. on June 11th.

June departures were 15 out S. at Selsey Bill on the 3rd and 15 SE. there on the 25th. No large autumn movements; one at Sidlesham Ferry on Sept. 25th was the last record. As this species is now the subject of a Society survey all counts of breeding colonies would be most welcome.

258. KINGFISHER (*Alcedo atthis*).—A further large increase in records and there seems no doubt that the species has recovered well from the effects of the 1962/63 winter. In the early months 6 recorded at the coast in 4 localities and 13 in 10 inland localities.

In the breeding season (April to August) recorded from 35 localities, compared with 18 in 1966, but how far this is a genuine increase is impossible to say; many more potential breeding sites were visited in 1967. Seven pairs certainly bred, raising 16 young and breeding probably took place in 4 other sites. Details are suppressed for security reasons. All other breeding season records were of single birds but breeding seems likely to have occurred in many cases; in one area it definitely did not.

Between September and December 26 birds were seen in 18 inland localities and 15 at 9 along the coast. One flew out SW. out of sight at Selsey Bill on Aug. 24th and one did likewise on Sept. 16th.

261. HOOPOE (*Upupa epops*).—One in a garden at Barnham throughout April. Single birds at Selsey Bill on Apr. 15th, Ditchling on Apr. 22nd, Brighton on May 5th, West Chiltington on the 15th and Hartfield on the 18th. Two recorded in June; at Henfield from the 5th to the 14th and at Heathfield from the 15th to the 18th. In the autumn one at Groombridge from Oct. 5th to 18th, a late date.

Woodpeckers.—All Woodpecker records are urgently required.

262. GREEN WOODPECKER (*Picus viridis*).—A further increase in records and the species seems generally re-established, although AWF records it as still scarce at Stansted Park and Addean. In NW. Sussex a marked increase noted. Counts of pairs recorded were: Petworth Park, 3; Ambersham Common, 3; St. Leonard's Forest (Lily Beds), 3; Wych Cross, 3 in 35 acres of woodland; Possingworth Park, 3. Elsewhere single pairs or birds noted in 55 localities well distributed over much of the county, but none were reported from the extreme east.

263. GREAT SPOTTED WOODPECKER (*Dendrocopus major*).—Although fewer records were received than for the preceding species general comments by several observers indicate that this is our commonest woodpecker. Counts of pairs noted were: Petworth Park, 2 or more; Ambersham Common, 3; Clapham Woods, 2; West Chiltington, 3; St. Leonard's Forest (Lily Beds), 3; Wych Cross, 2 on 35 acres of woodland; Possingworth Park, 4. Elsewhere single pairs or birds noted in 33 localities, well distributed over the county. On May 30th one was seen to take a nestling from a Mistle Thrush's nest at Westbourne.

264. LESSER SPOTTED WOODPECKER (*D. minor*).—A further increase in records. In the breeding season noted in 24 localities compared with 9 in 1966. Eight definite breeding pairs were recorded from 7 sites: Petworth Park, Greatham Bridge, West Chiltington (2), Washington, Wiston Park, Wych Cross

and Possingworth Park. All other breeding season records refer to birds rather than pairs, but it seems likely that most of these would be breeding. Outside the breeding season noted in a further 5 localities and there were 4 together at Charmandean on Dec. 18th; possibly these were a family party as birds were first seen there in June.

265. **WRYNECK** (*Jynx torquilla*).—One was present in the north of the county from June to August. In the autumn at least 4 at Beachy Head between Aug. 26th and Sept. 17th; 2 were trapped on Aug. 27th. Three different birds at Sidlesham between Sept. 7th and 10th and one was picked up dead at Rotherfield on Sept. 11th.

271. **WOODLARK** (*Lullula arborea*).—Four or 5 at Stanmer Park on Apr. 26th. In the autumn one on the outskirts of Worthing from Sept. 5th to 16th and singles at Beachy Head on Oct. 18th and 20th and at Church Norton on the 23rd.

Breeding Survey

Only four breeding pairs found and these were in 3 localities in West Sussex. In addition single singing males were heard in 3 areas in East Sussex. Exact sites are suppressed for security reasons. This survey continues in 1968 when all records would be welcome.

272. **SKYLARK** (*Alauda arvensis*).—In March and April 29 flew out SE, 6 out SW, and 15 in S-N, in 20 days watching at Selsey Bill.

Some breeding season counts were: Arun valley, 30 pairs and 37 single birds on c.2,900 acres from Amberley Wildbrooks to Littlehampton and c.20 pairs on c.700 acres between Greatham and Pulborough. C.8 pairs on 100 acres of grass and glasshouses at Littlehampton; 59 pairs on c.1,400 acres of downland farmland between Cissbury and Chantconbury; 20+ singing males on c.900 acres of downland golfcourses at Worthing; 5 pairs on 155 acres of farmland at Plumpton.

Autumn movements at Selsey Bill were 150 W., 71 SE/SW, and 38 in S-N, in 36 days watching from Oct. 1st to Dec. 31st. At Beachy Head there was a large influx of c.500 on Nov. 12th. A large cold weather movement on Dec. 9th and 10th was noted in several localities; at Southwick c.600 per hour were passing on the morning of the 9th.

273. **SHORELARK** (*Eremophila alpestris*).—One on the shore at Little Galley Hill, Bexhill, on Nov. 8th (WPW).

274. **SWALLOW** (*Hirundo rustica*).—One at Langney Point on Feb. 4th, the earliest record for the county. Otherwise the first spring record was one at Ditchling on Mar. 23rd. At Selsey Bill a total of 615 in S-N, in 24 days watching in April and May, peaks 78 on Apr. 30th and 285 on May 14th.

The only breeding record received came from Plumpton where 8 nests produced 29 young. Breeding counts of this species from villages or parts of towns would be very useful.

In autumn the peak movement at Selsey Bill was c.14,720 out SE, on Sept. 9th, when also c.10,000 E. at Beachy Head. A movement of c.1,000 per hour W. at the Midrips on Oct. 5th. A number of late records with 12 birds in the second half of November, 2 at Beachy Head on Dec. 2nd and one on the 3rd when there were also 7 at Selsey Bill.

275. **RED-RUMPED SWALLOW** (*H. daurica*).—One at Beachy Head on Apr. 23rd (PC, KV *et al*). This record, which is the first for Sussex, has been accepted by *Brit. B.*

276. **HOUSE MARTIN** (*Delichon urbica*).—First recorded on Apr. 13th at Aldsworth, Chichester G.P. and Shoreham. Counts of breeding colonies were: Nyewood, 119 occupied nests; Ditchling High Street, 60 occupied nests; Rottingdean village, 5 occupied nests, a decrease of 25 since 1963; Plumpton, 105 occupied nests. As this species is now the subject of a Society survey all counts of breeding colonies would be welcome.

In the autumn virtually no movement noted at Selsey Bill; at Beachy Head 7,500 SW, on Oct. 21st. Elsewhere 300 E. at Worthing on Sept. 17th, a W. movement of c.100 per hour at the Midrips on Oct. 5th and c.3,000 SW, at West Chiltington over Oct. 9th/10th. Two at Felpham on Dec. 2nd and 2 at Arundell on the 4th.

277. **SAND MARTIN** (*Riparia riparia*).—First recorded at Pagham on Mar. 16th. No large spring movements, a maximum of 15 in S-N, at Selsey Bill on Apr. 26th. Counts at breeding colonies were: West Heath Common, 22 occupied nests; Nyewood, c.5 pairs; near Midhurst (SU890214), c.4 pairs; Aldingbourne G.P., 67 occupied nests; Rye Harbour G.P., c.20 pairs. In addition DSF counted 2,980 occupied nests in 25 colonies at Sullington and Windmill Quarries, Washington.

The largest autumn movement was 1,000 E. at Beachy Head on Sept. 9th. A number of late records with 6 birds recorded in the second half of October and the last on Nov. 3rd at Glynde.

AUTUMN MOVEMENTS OF HIRUNDINES AT COASTAL STATIONS

	SELSEY BILL.		BEACHY HEAD	
	(Days watched: 18 in Aug., 14 in Sept., 14 in Oct.)	(Days watched: 10 in Aug., 14 in Sept., 12 in Oct.)	E.	W.
August				
Swallow	46	2160	508	see note below
House Martin	—	14	25	500' " " "
Sand Martin	—	1233	390	—
September				
Swallow	—	250	16225	see note below
House Martin	—	—	30	1100' " " 260
Sand Martin	—	—	—	—
October				
Swallow	1	15	205	see note below
House Martin	—	8	—	No movements
Sand Martin	—	1	2	"

NOTE: Movements of Swallows and House Martins at Beachy Head were very confusing in 1967; for example birds were passing in quite different directions on the E. and W. sides of the Head at the same time. In the absence of proper study the figures were felt by the observers to be inaccurate and are omitted. Some notes will be found under the species headings.

278. **GOLDEN ORIOLE** (*Oriolus oriolus*).—One heard singing at a locality in central Sussex on June 9th (JHKD, FLR).

281. **CARRION CROW** (*Corvus corone corone*).—Three flew out S. at Selsey Bill on Mar. 27th and one flew in S-N, on Apr. 16th.

287. **HOODED CROW** (*C. c. cornix*).—One on the Downs at Plumpton from Jan. 12th to Apr. 11th.

282. **ROOK** (*C. frugilegus*).—Counts of rookeries were as follows: 279 nests in 11 colonies at Harting; 10 nests at Portslade; 128 nests in 6 colonies in South Woodingdean, Ovingdean and Rottingdean.

283. **JACKDAW** (*C. monedula*).—A roost of between c.1,500 and c.2,000 at Possingworth Park from mid-January to March. Four flew out NW-SE, out of sight at Selsey Bill on Apr. 4th.

288. **GREAT TIT** (*Parus major*).—Records suggesting passage were 60 at Beachy Head on Mar. 5th, 50 of which moved W. and 35 there on the 19th, 30 of which moved N.

289. **BLUE TIT** (*P. caeruleus*).—Four, first seen about a quarter of a mile out, came in from the sea at Worthing Pier on June 4th! On Oct. 18th there were 85, 30 of which moved W., at Beachy Head.

290. **COAL TIT** (*P. ater*).—On June 5th PJW found a nest with young in a hole in the base of a wall where it joined the pavement in Uckfield High Street.

292. **MARSH TIT** (*P. palustris*).—At least 5 pairs bred in the Arun valley at Burpham. In the woodland survey 11 pairs in 5 areas totalling c.245 acres at Ambersham Common, Charlton Forest, Clapham Woods, Rackham and West Chillington.

293. **WILLOW TIT** (*P. montanus*).—Recorded in the breeding season from 14 localities, with definite breeding in 6; West Chillington, Horsham, West Hoathly, Pippingford Park, Wych Cross (3 pairs) and Possingworth Park (3 pairs). Eleven 1967 sites were not reported on in 1965 or 1966. Altogether since 1965 the species has been noted in 32 localities and a reasonably clear picture of status is emerging; however, more records are still required.

294. **LONG-TAILED TIT** (*Aegithalos caedatus*).—A continued increase in breeding season records and noted from 35 localities. There seems no doubt that the species has now largely recovered from the effects of the 1962/63 winter. After the breeding season 9 parties totalling 85 birds noted.

295. **BEARDED TIT** (*Panurus biarmicus*).—In the first three months of the year recorded as follows: Chichester G.P., 8 from Mar. 7th to 19th; Pagham, 6 from Jan. 1st to 8th and 2 to Feb. 7th; Church Norton, 2 in January and February increasing to 7 on Mar. 12th and still 3 at the end of March; Newhaven Tidemills, one on Mar. 12th; Pett Levels, one on Jan. 1st. Some through passage seems implicit in the March records.

In the autumn first noted on Oct. 18th and records as follows: Chichester G.P., 2 on Nov. 10th and 13th; Pagham, c.6 from Oct. 30th to Dec. 31st; Church Norton, 4 on Oct. 23rd increasing to c.8 on Nov. 12th and still 4 on Dec. 16th; Scaynes Hill S.F., one from Dec. 9th to 31st; Northase, 2 on Oct. 28th; Beachy Head, 5 E. on Oct. 18th; Crumbles, 10 on Oct. 20th, 15 on Oct. 21st and 12 on the 29th; Pett Levels, 12 on Nov. 6th and c.3 to Dec. 17th.

296. **NUTHATCH** (*Sitta europaea*).—Twelve pairs located in 1½ square miles of Horsham U.D. west of the railway; 4 pairs in 35 acres of woodland at Wych Cross. In the woodland survey c.12 pairs noted in 4 areas totalling c.195 acres at Ambersham Common, Clapham Woods, Rackham and West Chillington.

299. **WREN** (*Troglodytes troglodytes*).—The few records received suggest that this species may now be more numerous than before the 1962/63 winter. In the woodland survey c.60 pairs noted in 5 areas totalling c.245 acres at Ambersham Common, Charlton Forest, Clapham Woods, Rackham and West Chillington. Very numerous at Beachy Head in October with a maximum of 130 on the 21st. Ninety-two were ringed during the year there, compared with a grand total of 95 in the previous 7 years.

302. **FIELDFARE** (*Turdus pilaris*).—On Jan. 8th 500 flew W. at Rottingdean in 30 minutes and 450+ NW-SE. at Cissbury in 2 hours. On the 9th, 50 came in from the sea at Bexhill. In the first 4 months the largest flocks noted were c.600 at Harting on Mar. 2nd, 400 at Hartfield on Mar. 7th and between 500 and 800 at Freshfield on April 10th. Only 4 other flocks of more than 100 reported. On Apr. 26th an influx of 60 at Beachy Head and 30 there on the 30th; one at Sidlesham Ferry on May 2nd.

In the autumn no large movements noted; at Beachy Head a maximum of 40 on Nov. 26th and an increase at Harting from c.30 on Nov. 9th to c.130 on the 14th. On Dec. 10th 420 W. at Brighton in 2 hours.

303. **SONG THRUSH** (*T. philomelos*).—C.100 at Beachy Head on Jan. 15th. In the autumn there was an increase there from 45 to 120 on Oct. 22nd. C.100 W. at Southwick on Dec. 10th.

304. **REDWING** (*T. iliacus*).—In the early months much less common than Fieldfares, no flock of more than 80 being seen. An increase from 25 to 110 at Selsey Bill on Mar. 18th and one at Beachy Head on Apr. 30th.

No large autumn movements noted. First recorded at Beachy Head on Oct. 19th and a maximum of 75 there on Nov. 7th. A large cold weather movement on Dec. 9th with birds passing W. over Worthing at c.1,500 per hour; only very small numbers were noted further east. On the 10th, 225 W. at Brighton in 2 hours.

307. **RING OUZEL** (*T. torquatus*).—The first recorded was one at Beachy Head on Mar. 5th, the earliest spring record for the county. Between then and May 6th c.40 were recorded, mainly at the coast, an unusual number for spring passage. The peak at Beachy Head was 6 over Apr. 15th/16th and there were 5 at Woodingdean on May 1st.

Many fewer in the autumn than in the previous two years with totals of c.40 in September from the 3rd, and c.20 in October. The maxima at Beachy Head were 25 on Sept. 16th and 24th and 13 on Oct. 8th. One at Cissbury on Nov. 19th, a very late date.

311. **WHEATEAR** (*Oenanthe oenanthe*).—First recorded on Mar. 4th at Selsey Bill. Spring maxima there were 25 on Mar. 26th, 36 on Apr. 22nd and 30 on May 6th; 10 at Beachy Head on May 6th. One at Selsey Bill on June 3rd

322. **NIGHTINGALE** (*Luscinia megarhynchos*).—Breeding season counts were: 5 or 6 pairs in Harting parish; 25 pairs in 7 localities in the area Blackdown/Fittleworth/Midhurst, including 7 pairs at Bexley Hill and 5 at Flexham Park. At Stansted Park a decline from the usual c.4 pairs to one singing male which may not have bred. In the woodland survey c.6 pairs in 4 areas totalling c.195 acres at Ambersham Common, Charlton Forest, Clapham Woods and West Chillington. In addition a further 17 pairs or singing males noted in 14 widely scattered localities and 6 heard at Duncton on Apr. 18th.

324. **BLUETHROAT** (*Cyanosylvia svecica*).—A total of 6 records between Sept. 10th and 24th as follows: one trapped at Beachy Head on the 10th (PC, MCR), 2 trapped at Chichester G.P. on the 12th (CRG), one at the Midrips on the 15th and 24th (RJB, BAEM, PJM) and one at Rye Harbour on the 16th and 18th (MJR).

325. **ROBIN** (*Erithacus rubecula*).—A nest found at Little Common, Bexhill, on Jan. 22nd had 4 eggs on Feb. 2nd. In the autumn an influx of c.60 at Beachy Head on Oct. 22nd.

Birds showing the characters of the race *rubecula* noted at Beachy Head on Mar. 12th, 13th and 26th.

327. **GRASSHOPPER WARBLER** (*Locustella naevia*).—First recorded on Apr. 15th at Beachy Head. C.56 breeding pairs, based on counts of singing males, recorded from 29 localities. More than one pair recorded from: Henley Common, 2; Blackdown, 3; Charlton Forest, 4; Houghton Forest, 3; Duncton, 3; Burton Down, 3; Stopham, 3; West Chillington, 2; Rewell Wood, 5; Cissbury Ring, 3; RIVERS Wood Ardingly, 3; Woodingdean, 4; Ashdown Forest, 7; Beachy Head, 3.

In the autumn one at Beachy Head on Oct. 1st and one on the 21st, the latest county record.

333. **REED WARBLER** (*Acrocephalus scirpaceus*).—The first recorded were 2 at Hardham Mill on Apr. 22nd. Counts of breeding pairs were: Church Norton, c.18-20; Chichester G.P., c.50; Arun valley, c.42 on c.2,500 acres from Amberley Wildbrooks to Littlehampton omitting the part between Houghton and Amberley; Adur valley, 17 from Shoreham to Coombes. Autumn passage peak at Beachy Head was 18 on Sept. 7th. Three October records, the last being at Belle Tout on the 22nd, the second record for this very late date.

334. **MARSH WARBLER** (*A. palustris*).—In 1966, 4 pairs were found in an area of c.3 square miles and at least 2 of these raised young. In 1967 one pair in the same area may have raised young. These are the first breeding records for this species, which has been very rarely recorded in the past 20 years, since 1947.

337. **SEDGE WARBLER** (*A. schoenobaenus*).—First recorded on Apr. 7th at Chichester G.P.; only small numbers on spring passage. C.10 pairs breeding at West Harting Pond; c.10-12 pairs at Church Norton; c.10 pairs at Chichester G.P.; c.119 pairs on c.2,500 acres of the Arun valley from Amberley Wildbrooks to Littlehampton omitting the part between Houghton and Amberley; 4 pairs at Burton Pond and 3 at Woodsmill. CRG ringed 1,028 at Chichester G.P. in the autumn. The autumn passage peak at Selsey Bill was 15 on Aug. 19th and at Beachy Head was 70 on Sept. 6th. One at Pagham on Oct. 12th was the last.

was presumably a late immigrant. Breeding records came only from the Rye area, with 6 pairs and the Midrips/Wicks, with c.5 pairs. A search was made in the Amberley Mount and the Cissbury/Chanctonbury areas but no pairs were found.

Autumn passage recorded between Aug. 5th and Nov. 5th with maxima of 70 near Brighton on Aug. 29th, 45 at Beachy Head on Sept. 8th and near Brighton on the 14th, and 24 at Selsey Bill on the 30th.

317. **STONECHAT** (*Saxicola torquata*).—In the early months c.25 wintering birds noted along the coast in 15 localities. Some passage evident at Selsey Bill in March with an increase from c.3 to 11 on the 4th and 9 on the 11th.

Breeding pairs were recorded as follows: Blackdown, 2; Iping Common, 3; Ashdown Forest, c.20; Beachy Head, c.7 and single pairs at the county boundary near Liss, Ambersham Common, St. Leonard's Forest, South Common Chailey, Newhaven Tidemills, Seaford Head and Firehills.

The autumn maximum at Beachy Head was 35 on Oct. 22nd and at Selsey Bill 16 on the 29th. At the end of the year c.55 wintering along the coast in 21 localities.

318. **WHINCHAT** (*S. rubetra*).—First recorded on Apr. 23rd at Beachy Head; very few on spring passage, maximum 6 at Selsey Bill on May 7th.

One pair certainly bred in the centre of the county and reared young; 2 other pairs probably did so, one in the west and one in the east. These are our first breeding records since 1963.

Autumn passage from July 16th to Oct. 22nd, with maxima of 46 on Horsey Levels on Sept. 2nd, 40 at Beachy Head on the 8th and c.40 at Selsey/Sidlesham on the 10th. Two exceptionally late records; one at Pagham on Nov. 11th and one at Rustington on the 17th, the latest records for the county.

320. **REDSTART** (*Phoenicurus phoenicurus*).—First recorded at Selsey Bill on Apr. 15th. Spring maxima of 12 at Beachy Head on Apr. 18th and 6 at Selsey Bill on May 7th. Autumn passage from Aug. 12th to Oct. 23rd with a peak of 53 at Beachy Head on Sept. 8th.

Breeding Survey

Breeding was confirmed or highly probable at 31 sites and 9 males and 3 females were found at other sites during the breeding season. With the exception of a pair at Southouse and a female at West Dean (East Sx.) all records came from the northern half of the county; in the west from Linchmere, Marley and Amber-sham Commons, Iping, Blackdown, Lodsworth, Petworth Park and Flexham Park; in the central area from St. Leonard's, Tilgate, Brantridge, Worth and Worthlodge Forests; and from the east from Ashdown Forest, Withyham, Hoath Wood, Nap Wood and Bayham. Thus the species seems thinly distributed over most of the northern half of the county but many pairs have probably remained undetected and suitable sites unvisited. The survey is continuing in 1968 and all records are urgently required.

321. **BLACK REDSTART** (*P. ochruros*).—In the spring c.10 recorded at the coast between Mar. 12th and Apr. 23rd, and one trapped at Marley on Apr. 5th. No breeding records received but one at Beachy Head on May 13th.

In the autumn c.13 recorded between Sept. 5th and Nov. 26th, all at the coast except for one at Cocking Down on Nov. 12th. One or 2 wintering along Portslade/Hove sea-front in December.

338. **AQUATIC WARBLER** (*A. paludicola*).—Single birds trapped at Chichester G.P. on Sept. 16th and 17th (CRG). These records have been accepted by Brit. B.

340. **ICTERINE WARBLER** (*Hippolais icterina*).—One was trapped at Beachy Head on May 28th (PC, PKK). The second record for the county and the first for spring.

343. **BLACKCAP** (*Sylvia atricapilla*).—A male at Alfriston on Jan. 21st. In the spring first recorded on Apr. 15th at Selsey Bill; few recorded at the coast, a maximum of 4 at Beachy Head on May 7th. In the woodland survey 24 pairs noted in 5 areas totalling c.245 acres at Ambersham Common, Charlton Forest, Clapham Woods, Rackham and West Chiltington. Autumn passage from Aug. 5th to Oct. 23rd, with peaks at Beachy Head of c.200 on Sept. 7th and 9th.

346. **GARDEN WARBLER** (*S. borin*).—Not recorded before May 2nd and only small numbers on spring passage. In the woodland survey 10 pairs noted in 5 areas totalling c.245 acres at Ambersham Common, Charlton Forest, Clapham Woods, Rackham and West Chiltington. Autumn passage at Beachy Head from Aug. 5th to Oct. 1st with peaks of c.40 on Aug. 6th, 20th and 26th and Sept. 10th. The last recorded was one trapped at Burgess Hill on Oct. 8th.

347. **WHITETHROAT** (*S. communis*).—One at Beachy Head on Mar. 26th. Recorded regularly there from Apr. 23rd, with a spring peak of 70 on May 6th; at Selsey Bill a peak of 34 on May 7th. In the Arun valley 15 pairs on c.1,500 acres from Amberley Wildbrooks to Offham omitting the part between Houghton and Amberley; 22 pairs on c.1,400 acres of downland farms between Cissbury and Chamtonbury.

Autumn passage from the end of July to Oct. 22nd, with peaks at Beachy Head of 400 on Aug. 6th, 300 on the 20th and 200 on Sept. 7th and 8th. A late bird at Woodingdean on Oct. 30th.

348. **LESSER WHITETHROAT** (*S. curruca*).—First recorded on Apr. 9th at Donnington, a very early date. A rather poor spring passage, maximum 8 at Selsey Bill on May 13th. In the breeding season c.38 pairs recorded from 19 localities, including 3 pairs on 30 acres at Runcton, 2 pairs on c.800 acres of Amberley Wildbrooks, 2 pairs on c.1,200 acres of the Arun valley from Offham to Littlehampton, and 6 pairs in Possingworth Park.

Autumn passage from about Aug. 6th to Oct. 1st, with peaks at Beachy Head of 25 on Aug. 6th and 50 on Sept. 7th. A late bird there on Oct. 18th.

353. **DARTFORD WARBLER** (*S. undata*).—No confirmed breeding records although one pair possibly bred in the usual area and 3-4 birds seen there during the year. Birds were also present in the area where a pair bred for the first time in 1966 and a pair was found in another new locality from Apr. 17th to July 10th with a single bird there later in the year. One at Pagham from Oct. 30th to Dec. 3rd.

354. **WILLOW WARBLER** (*Phylloscopus trochilus*).—First recorded on Mar. 12th at Beachy Head. The spring passage peak was 14 at Selsey Bill on Apr. 15th.

356. **CHIFFCHAFF** (*P. collybita*).—The 2 wintering birds at Chichester G.P. first noted in 1966 were still present in the early part of the year; 3 there on Feb. 25th. One at Eastbourne on Jan. 5th. In February one at Bognor on the 3rd and one at Shoreham on the 21st. Regularly recorded from Mar. 10th with a spring peak of 22 at Selsey Bill on Apr. 15th. One at Manhood End on Nov. 19th.

WILLOW WARBLER/CHIFFCHAFF.—One at Shoreham on Jan. 2nd. Spring passage peaks were c.48 at Selsey Bill on Apr. 15th and c.28 there on the 22nd; c.90 at Beachy Head on Apr. 30th.

Autumn passage peaks were 35 at Selsey Bill on Aug. 20th and 46 on Sept. 17th; at Beachy Head c.200 on Sept. 7th, c.370 on the 17th and c.70 on Oct. 1st.

357. **WOOD WARBLER** (*P. sibilatrix*).—First recorded at Bayham on Apr. 20th and one at Aldsworth on the 23rd. In the breeding season pairs recorded from Blackdown, 6; Lodsworth, one; Rogate Common 2; Bexley Hill, 2; Flexham Park, 4; Horsham area, 6. Status in the Marley area much as in 1966, 15 nests found and 65 young ringed. In addition 28 territorial males recorded in 13 other localities: Stansted Park, Ambersham-Hoyshoit, Clapham Woods, Rackham, Parham, St. Leonard's Forest, Peasepottage, Tilgate Forest, Brant-ridge Forest, Balcombe, Whiteley Hill, Sheffield Forest and Ashdown Forest.

360. **YELLOW-BROWED WARBLER** (*P. inornatus*).—One at Patcham Place, Brighton, on Oct. 15th (PIB). The fourth county record.

364. **GOLDCREST** (*Regulus regulus*).—In the spring an increase from c.5 to c.20 at Selsey Bill on Mar. 25th and recorded at Beachy Head between Mar. 5th and Apr. 9th, with a maximum of 40 on Mar. 25th.

C.60 pairs or singing males recorded in the breeding season in 12 localities, and the species seems to have fully recovered its pre-1963 status. There were 6 singing males in Stansted Park and at least 15 at Bayham.

Autumn passage at Beachy Head from Sept. 17th to Dec. 17th with peaks of 20 on Sept. 17th, 45 on Oct. 8th and 55 on the 21st.

365. **FIRECREST** (*R. ignicapillus*).—More recorded than in any previous year with a total of c.42 individuals, mainly at Beachy Head. Records were: one at Burton Park on Feb. 6th; 11 along the coast in the spring between Mar. 11th and May 13th, including 3 at Beachy Head on the latter date, the latest spring date for the county.

In the autumn c.30 noted along the coast between Aug. 26th, a very early date, and Nov. 11th, including peaks at Beachy Head of 6 on Sept. 24th and 8 on Oct. 21st. One at Eastbourne on Dec. 17th.

366. **SPOTTED FLYCATCHER** (*Muscipapa striata*).—First recorded on May 6th at Harting. In the breeding season c.76 pairs recorded in 32 localities including the following counts: 3 pairs on 30 acres at Runcton; 3 pairs at Burpham; 4 pairs in Pulborough village; 21 pairs in one square mile of Horsham U.D. on the west side; 4 pairs in Middleton wood, Westmeston; 3 pairs on 35 acres at Wych Cross and 3 pairs in Possingworth Park. All breeding records of this species are welcome.

In the autumn, maxima of 24 at Cissbury on Aug. 23rd and 20 at Beachy Head on Sept. 17th. One at Burgess Hill on Oct. 12th was the last recorded.

368. **PIED FLYCATCHER** (*Ficedula hypoleuca*).—In the spring 6 recorded between Apr. 21st and May 9th. In the autumn recorded between July 26th and Oct. 1st, but many fewer than in 1966; the maximum at Beachy Head was 16 on Sept. 8th. One there on Oct. 19th, the latest record for the county.

370. **RED-BREASTED FLYCATCHER** (*F. parva*).—One was trapped at the Crumbles on Oct. 21st (BEC, STG, NAGL, MEN). The second record for the county; the previous record was of one at Handcross on Apr. 29th, 1948.

373. **MEADOW PIPIT** (*Amihus pratensis*).—In the spring at Selsey Bill c.1,440 flew in S-N. in 20 days watching in March and April, peaks 450 on Mar. 27th and 290 on Apr. 10th.

Some breeding season counts were: 28 pairs and 53 adults on c.3,600 acres of the Arun valley between Pulborough and Littlehampton; 7 pairs on c.1,400 acres of downland farms between Cissbury and Chantonbury; 13 pairs on 900 acres of downland golfcourses at Worthing and c.27 pairs between Whitbread Hollow and Beachy Head.

In the autumn at Selsey Bill totals of 88 W., 560 S. and 15 N. in 29 days watching in September and October. At Beachy Head a large S-NE. movement reaching 300 per hour, on Sept. 16th and 80 W., 140 S. and 30 N. on 4 other dates in September and October.

374. **RICHARD'S PIPIT** (*A. novaeseelandiae*).—One at Sidlesham on Oct. 4th (MS). On Pevensey Levels 4 on Oct. 22nd, 2 on the 23rd and 3 on the 29th and Nov. 2nd (BEC, AQ, KV *et al.*). All these records have been accepted by *Brit. B.*

375. **TAWNY PIPIT** (*A. campestris*).—Single birds at the Midrips on Sept. 2nd (RJB, PJM, MJR), Beachy Head on the 17th (BEC, PC, AQ *et al.*), Sidlesham on the 20th (MS) and at Seaford Head on the 24th (ABS). These records have been accepted by *Brit. B.*

376. **TREE PIPIT** (*A. trivialis*).—First recorded at Sidlesham on Mar. 27th, an early date, and one at Beachy Head on Apr. 3rd. Spring maxima were 6 at Selsey Bill on Apr. 23rd and 5 there on May 7th. Autumn passage at Beachy Head recorded from Aug. 13th to Oct. 1st with a peak of 80 on Aug. 20th. All movements there were 15 W. on Aug. 13th, 30 E. on the 20th, 30 SW. on Sept. 8th and 5 W. on Oct. 1st.

Breeding Survey

A total of 194 breeding pairs from 40 localities reported, of which 61 pairs were found in Ashdown Forest. Other important areas were the commons in the west and north-west of the county, 21+ pairs, and the forests in the Horsham/Crawley/Haywards Heath areas, 62 pairs. Apparently suitable areas on the Downs in the west of the county produced only a few records and there were only 2 records south of the Downs.

This survey is continuing in 1968 and all records are required. Information is particularly needed from the extreme east of the county.

379. **ROCK PIPIT** (*A. spinoletta*).—Up to 6 in the Selsey Bill area in January and February and similar numbers in December. Elsewhere in December 2 at Thorney and 17 along the shore between Shoreham and Rottingdean.

Single birds showing the characters of the race *spinoletta* at Barcombe Res. on Mar. 26th and Beachy Head on May 28th.

380. **PIED WAGTAIL** (*Motacilla alba*).—Two came in S-N. at Selsey Bill on Mar. 18th with single birds likewise on the 25th and 26th. A roost of 109 at Seaynes Hill S.F. on Aug. 30th. Autumn movements at Selsey Bill were 76 W. and 10 S. in 24 days watching in October and November.

381. **GREY WAGTAIL** (*M. cinerea*).—With many more potential breeding sites visited than in any other recent year there was a large increase in breeding records received, and the species is clearly more widespread than previously supposed.

A survey was made by MG, MRG, RRG and WM of c.190 square miles of mid-Sussex, enclosed by grid references TQ190340, 500340, 500180, 190180 and embracing the upper reaches, tributaries and source lakes of the rivers Arun, Adur, Ouse, Mole and Medway. They found 41 occupied sites containing 31 definite pairs and 10 single birds and breeding was proved in the case of 16 pairs which reared 38 young; evidenced by a nest being found or a brood being seen. This survey is being repeated and extended in 1968.

Elsewhere a further 34 pairs and 4 single birds were located, including 4 pairs in Harting Parish and 4 pairs along the Rother between Chithurst and Easebourne. Eleven of these pairs are known to have raised 33 young. Thus the year's total was 65 breeding pairs and 14 single birds, at least some of which probably bred, and most were west of a line linking Bayham and Newhaven.

Autumn movements at Selsey Bill totalled 3 E. and 13 W. in 26 days watching between Aug. 26th and Oct. 21st. At Beachy Head 13 E., 16 W. and 15 S. in 19 days between Aug. 27th and Oct. 8th.

382. **YELLOW WAGTAIL** (*M. flava*).—One at the Cuckmere on Feb. 12th, the second February record for the county. The first spring record was one at Amberley Wildbrooks on Mar. 25th. Seven in S-N. and 14 in the area at Selsey Bill on Apr. 16th was the largest spring movement.

Autumn movements at Selsey Bill totalled 80 E., 90 W., 120 S. and 3 in S-N. in 20 days watching between Aug. 20th and Sept. 17th. At Beachy Head 35 E., 135 W. and 45 SW. on 7 dates between Aug. 13th and Oct. 1st.

Breeding Survey

Area	Extent Surveyed	Number of Pairs	Area	Extent Surveyed	Number of Pairs
Lower Arun valley	Amberley to Littlehampton	3	Glynde Levels	Area round Glynde Reach	9
Amberley/Pulborough marshes	Whole area	41	Pevensey Levels	Marsate E. Pevensey to Boreham Street road	7
Adur Levels	Shoreham Toll Bridge to Wock-ham Farm, W. of River Lewes	8	Rother Levels	Wet Levels Newenden/Bodiam area	19
Ouse valley	All N. to Alfriston	5	Pett Levels		16
Cuckmere valley		3	Rye marsh and Barcombe Res.		14
					13
					140
					TOTAL

A total of c.140 pairs found. Counts were again made on all major levels except Brede Levels, and included the whole of the Arun valley N. to Pulborough, the first time such complete coverage of this area has been achieved. No information on breeding success was recorded. The figures show a small overall

increase in breeding pairs; in areas counted in each year there were 108 pairs in 1966 and 114 in 1967. There was a decline on Pevensey Levels, from 44 pairs to 26; other areas showed an increase or no change. This survey is now complete and a paper discussing the results in full appears on page 53.

384. GREAT GREY SHRIKE (*Lanius excubitor*).—More records than usual at the beginning of the year with one, first noted in 1966, at Beachy Head until Mar. 24th and single birds at Pevensey Levels on Jan. 15th, Lye Green on Jan. 17th, Findon on Feb. 5th, Washington on the 12th and Glynde Levels on the 26th.

At the end of the year one at Beachy Head from Nov. 11th to Dec. 31st and 2 there on Nov. 19th.

386. WOODCHAT SHRIKE (*L. senator*).—One at Graftham on May 26th and 27th (KGA, AR, MS). This record has been accepted by *Brit. B.*

388. RED-BACKED SHRIKE (*L. collurio*).—One at Beachy Head on Aug. 26th (ARK) and one at Selsey Bill from Oct. 23rd to 29th (RJBJ, BAEM, MS), the latest county record.

389. STARLING (*Sturnus vulgaris*).—In the first half of the year a total of 150 out SE. at Selsey Bill in 38 days watching to May 13th. In the autumn there 29 E., 40 W., 1,020 S. and 470 N. in 77 days from July to December, peaks 370 S. on Oct. 21st and 285 N. on Nov. 5th. At Beachy Head a total of 4,830 N. on 5 dates between Sept. 16th and Nov. 5th, maximum 4,000 on Nov. 5th. A very large cold weather movement on Dec. 9th when c.90,000 flew W. at Southwick in 2 hours.

391. HAWFINCH (*Coccothraustes coccothraustes*).—All records are given. One at Duncton on Jan. 11th and Feb. 12th. Four at Scaynes Hill on Jan. 29th and one there on Mar. 12th. Single birds at Upperton on Jan. 31st, Isle of Thorns on Feb. 4th, Harting on Apr. 17th and a pair at Uppark on June 3rd. Breeding was suspected at Kingsley Green and there was a pair in Charlton Forest on June 24th. Two juveniles at Sutton on July 15th.

392. GREENFINCH (*Carduelis chloris*).—On Jan. 2nd there was a flock of c.400 at Cissbury and similar numbers at West Chiltington. Two flew out S. at Selsey Bill on Mar. 4th and 7 did so on the 27th.

Autumn movements there were 530 W., 200 S., and 13 N. in 50 days watching September to December; most movement was in October. At Beachy Head 40 flew SW. on Oct. 21st, and up to 200 present there during the period. Other large winter flocks at the end of the year were c.250 at Rye Harbour on Nov. 5th and c.1,100 at Cissbury from October to December.

393. GOLDFINCH (*C. carduelis*).—Spring movements at Selsey Bill were 125 out S/SE. and 6 in S-N. in 34 days watching March to May. At Beachy Head 70 E. over May 6th/7th.

Autumn movements at Selsey Bill were 155 W., 980 S. and one N. in 38 days watching September to November, peak 865 S. on Oct. 21st. At Beachy Head a peak of 500 in the area in October and 30 W., 1,000 SW. and 10 N. in 12 days in that month; 40 W. there on Nov. 5th. A flock of c.200 at Thorney on Oct. 11th.

394. SISKIN (*C. spinus*).—In the early part of the year rather more than usual recorded with flocks totalling c.435 birds in 19 localities. The largest flocks were 30 at Ardingly on Jan. 5th, 78 at Blackdown on Feb. 11th, 50 at Darwell Res. on Mar. 2nd and 100 at the Isle of Thorns on Apr. 1st; these had declined to 20 by the 15th. One flew out S. at Selsey Bill on May 15th and 4 E. there on the 16th.

Few autumn records. Up to 10 present at Beachy Head between Oct. 8th and Nov. 5th. Movements there were 6 W. on Oct. 18th, 4 SW. on the 21st and 10 W. on Nov. 5th. Three flew in S-N. at Selsey Bill on Nov. 12th. Only one winter flock noted, 5 in the St. Leonard's Forest area in November and December.

395. LINNET (*Acanthis cannabina*).—Spring movements at Selsey Bill totalled 90 E., 435 S-N. and 40 S. in 34 days watching March to May, peak 186 N. on Apr. 8th. At Beachy Head 70 came in S-N on Mar. 25th and 27 likewise on Apr. 8th.

In the autumn 185 W., 1,600 S. and 57 N. at Selsey Bill in 36 days watching October to December, peak 1,245 S. on Oct. 21st. At Beachy Head a maximum of 800 in the area in October and a total of 960 SW. on 3 dates between Oct. 19th and Dec. 3rd.

396. TWITE (*A. flavirostris*).—Fewer than in recent years except in December. Monthly totals were:

Jan.	21	Feb.	7	Sept.	1	Oct.	6	Nov.	35	Dec.	55
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The largest flocks noted were 21 at Rye Harbour on Jan. 21st and parties of 20 at Selsey, Sidlesham Ferry and Shoreham in November and December.

397. REDPOLL (*A. flammea*).—In the early months parties totalling c.230 birds recorded from 10 localities. The largest flock was c.100 at the Isle of Thorns in early April. No breeding records received but birds were noted in 3 sites in Ashdown Forest in the breeding season.

In the autumn 25 out SW. at Selsey Bill on Oct. 21st, one N. there on the 29th and 4 S. on Nov. 5th. At Beachy Head a maximum in the area of 200 on Oct. 23rd and rather confused movements between N. and W. totalling 380 birds between Oct. 23rd and the end of November. Elsewhere parties totalling c.90 birds in 11 localities at the end of the year. No party of more than c.20 seen.

400. SERIN (*Serinus serinus*).—One at Selsey Bill on Dec. 3rd (MJH, ARK). This record has been accepted by *Brit. B.*

401. BULLFINCH (*Pyrrhula pyrrhula*).—An increase at Beachy Head from the normal c.20 to 45 on Oct. 29th which included 20 moving W.

404. CROSSBILL (*Loxia curvirostra*).—Following the invasion in the autumn of 1966 quite widely scattered in early 1967 with monthly totals as follows: January, 30 in 6 localities; February, 23 in 3 localities; March, 25 in 5 localities and 22 in 4 localities in April.

Successful breeding took place in one locality in East Sussex, our first breeding record since 1960. At least one other pair probably bred in another locality, a brood of 4 not long out of the nest being seen.

A few scattered records at the coast in July and August and up to 18 in the Marley area from September until the end of the year.

407. **CHAFFINCH** (*Fringilla coelebs*).—In February, flocks of c.150 at Harting on the 9th and c.90 near Cissbury on the 11th.

Autumn movements at Selsey Bill totalled only 3 E., 15 W., 2 S. and one N. in 50 days watching from September to December. At Beachy Head a maximum in the area of 150 in October and 150 came in from the S. and moved W. on Oct. 15th, with 20 N. on the 23rd and 60 W. on Nov. 5th.

408. **BRAMBLING** (*F. montifringilla*).—Except that there was no cold weather influx, rather more numerous in the early months than in the past 2 years, with parties totalling c.220 birds noted in 14 localities. The largest was c.150 at Hford on Feb. 13th. One was picked up dead in Hargate Forest on Apr. 17th and one was picked up dead near Sharpthorne on the 21st.

Very few in the autumn; first recorded on Oct. 21st at Beachy Head. Up to 6 birds there on 9 dates to Dec. 17th and 6 W. on Nov. 5th. Elsewhere a total of 14 birds noted in 5 localities in November and December.

409. **YELLOWHAMMER** (*Emberiza citrinella*).—On June 28th 13 singing males were counted along 2½ miles of the old railway between Slimfold and Christ's Hospital.

410. **CORN BUNTING** (*E. calandra*).—A flock of c.200 near Woodingdean from Jan. 11th to 20th and 50 there on May 9th; flocks of 40 at Camber on Jan. 14th and c.70 at Chancetonbury on Jan. 29th.

In the breeding season a total of 44 pairs or singing males recorded from 14 localities, 7 of which were on the Downs between the Arun and the Ouse. North of the Downs records came only from Adversane and Stecham, but also recorded from Pevensey Levels and Rye. Counts were: 7 pairs between Kithurst Hill and Highden Hill; 12 pairs in the Cissbury/Park Brow/Round Hill area; 4 singing males on c.60 acres of High Hill Rottingdean and 6 pairs in the Rye marshes.

In the autumn a maximum of 350 at Beachy Head on Sept. 17th and 20 flew E. at Selsey Bill on Nov. 19th.

415. **CIRL BUNTING** (*E. cirillus*).—Present all the year at Seaford, the Cuckmere valley and Beachy Head, where there were possibly 2 pairs. In the breeding season also recorded from Thorney Island, Aldwick, Heath End Sandpit, Lancing, Coombes, Coney Hill Brighton and West Dean (East Sx.); all single males or pairs except at Aldwick, where 3 singing males in April and West Dean, where 2 pairs in June.

A male at Church Norton on Sept. 12th and 3 pairs at Alfriston from October to December.

416. **ORTOLAN BUNTING** (*E. hortulana*).—Two at Beachy Head on Sept. 17th (RHC *et al*).

421. **REED BUNTING** (*E. schoeniclus*).—Some breeding season counts were: 6 pairs between Pulborough and Hardham; 20 singing males on Pulborough Northbrooks; 18 singing males between Greatham and Hardham, 45 pairs on 5½ square miles on the east side of Pevensey Levels.

422. **LAPLAND BUNTING** (*Calcurius lapponicus*).—One flying W. over Sidlesham on Oct. 25th (MS). At Beachy Head 3 on Nov. 12th, one on the 19th, 3 on the 26th and Dec. 2nd and one on Dec. 3rd (many obs.).

423. **SNOW BUNTING** (*Plectrophenax nivalis*).—The only records for the early part of the year were one at Clapham on Jan. 7th, 10 at Camber on Jan. 22nd and 6 there on the 30th.

In the autumn most records were from Beachy Head with 6 on Nov. 12th, 24 on the 19th, 8 on the 26th, 2 on Dec. 2nd and 3 on the 3rd. Elsewhere one or 2 in the Pagham/Selsey area from Oct. 29th to Dec. 31st and one at the Midrips on Nov. 14th.

425. **TREE SPARROW** (*Passer montanus*).—The largest winter flocks were c.65 at Barcombe Res. in January and February, c.100 at Scaynes Hill S.F. on Mar. 5th and 12th, 40 at Hartfield on Mar. 14th and c.90 at Sidlesham on Nov. 22nd.

In the breeding season recorded from 14 localities as follows: Sidlesham, Amberley Wildbrooks, Wiggonholt a pair with young, West Chillington 3 pairs reared young, Beeding, Burgess Hill a pair, Pound Hill Crawley, Barcombe Res., Iford area more than 6 pairs, Weir Wood Res. one pair, Bayham 20 birds in June and Pevensey Levels where birds present in 2 areas. Except where stated records refer only to birds present.

In October a total of 320 W. at Selsey Bill and 250 W. and 600 SW. at Beachy Heud between the 18th and 29th.

ADDITIONS AND CORRECTIONS TO THE 1966 REPORT

32. **LITTLE EGRET**.—The bird in Chichester Harbour on May 3rd was also seen on the 2nd (O. M. Ashford).

217/218. **COMMON/ARCTIC TERN**. First recorded on Apr. 3rd, not 7th as stated.

249. **SHORT-EARED OWL**.—The first autumn bird was one at Sidlesham on Oct. 1st.

265. **WRYNECK**.—An additional record was one at Nutley on Sept. 14th.

LAUGHING GULL (*Larus atricilla*).—Details are given on pages 213-4 of *Brit. B.* vol. 61 of one seen on the Crumbles on most days between July 2nd and 9th, 1923. This record has now been accepted by the B.O.U. Records Committee and precedes the only other British record by 43 years.

SOCIETY INVESTIGATIONS 1967

Details of the wader counts are set out on page 61. Summarised details of the breeding surveys are included in the Systematic List under the individual species headings.

BREEDING SURVEYS

Work continued on the surveys of Kestrel, Snipe, Redshank and Yellow Wagtail which are now considered complete.

It is very satisfactory to record a continued high level of support for these surveys and, as in 1966, all the major levels except Brede Levels were visited during the breeding season. Counts in the Arun Valley included the whole of the area from Littlehampton to Pulborough for the first time, and apart from rather incomplete Redshank figures from the Selsey/Sidlesham area, coverage of all the other important areas was as good as in 1966. In addition several fresh inland breeding sites for Snipe and Redshank were recorded. A further increase in Kestrel records was also received although there was no really substantial increase in the area covered. Coverage of existing areas was improved, however, and for example, what was almost certainly a complete count of pairs in Ashdown Forest was obtained through the independent efforts of several observers.

A paper detailing and discussing the results of the surveys of Snipe, Redshank and Yellow Wagtail appears on page 53 and a similar paper on the Kestrel survey is in preparation for the 1968 Report.

New surveys of Nighthawk, Woodlark, Redstart and Tree Pipit were also started in 1967 and met with a gratifying response; the change to a quite different group of species obviously stimulated fresh interest in these projects. Records came from most of the more important areas of the county but were rather sparse from the eastern end. The summaries in the Systematic List are only brief as the results will be described in detail when the surveys are complete.

In 1968 the surveys of Nighthawk, Woodlark, Redstart and Tree Pipit are continuing and work is starting on new surveys of Collared Dove, Swift and House Martin. It is hoped that all members will feel able to contribute to these new surveys which deal with rather more generally distributed species than hitherto.

PREDATORS

As in 1966 an attempt was made to study raptor and owl populations in a number of sample areas in the breeding season and at other times of year. Once again some most valuable and interesting results on breeding populations were obtained and these have been incorporated in the Systematic List. However, the methods being used to study populations and movements outside the breeding season have proved too impractical to be successful and results have been rather disappointing. This survey is therefore being discontinued in the present form, but the very successful study of breeding populations is being continued and all records will be most welcome.

WOODLAND SURVEY

The woodland survey results were rather disappointing, with counts from only 5 areas. As in previous years general information from the counts has been included in the Systematic List. In 1968 this survey is being discontinued for one year to give time for a thorough analysis of the results. It will be restarted in 1969.

ACKNOWLEDGEMENTS

We wish once again to thank the many observers, listed below, who have contributed to all these activities, their efforts are greatly appreciated. It is also very satisfying to note an increasing number of observers taking part. We also wish to thank S. W. M. Hughes for collecting and collating Kestrel records from the Horsham area and R. J. Sandison for organising and handling the records from the predator survey; he has also prepared the summaries in the Systematic List. Finally, S. W. M. Hughes has now taken over the organisation of these surveys from the Recorder, who is very grateful for the considerable help this affords him. Mr. Hughes' address will be found on page 1.

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THE STATUS AND DISTRIBUTION OF SNIPE, REDSHANK AND YELLOW WAGTAIL AS BREEDING BIRDS IN SUSSEX

By

M. SHRUBB

Introduction

In 1962 the Sussex Ornithological Society began a survey of the breeding population of the Redshank *Tringa totanus* in Sussex. This was continued until 1967 and was extended from 1965 to 1967 to include two other species, Snipe *Gallinago gallinago* and Yellow Wagtail *Motacilla flava flavissima*, with largely coincident breeding areas. This paper sets out and discusses the results.

The distribution of each of these species is well documented in the literature of Sussex birds. Most breed in the large areas of grass marsh, often known as brooks or levels, along the coast and the lines of the main rivers and some of their tributaries. All three species also breed in small pockets of marsh elsewhere in the county, and the Yellow Wagtail formerly bred in quite dry

areas, for example, downland. The information about such sites from the survey is incomplete and effective study of these species' populations is confined to the main marshlands.

These are difficult areas to work, both because of their size (Pevensey Levels for example total some 14 square miles and the total area of this habitat is nearly 70 square miles) and the nature of the terrain; they are so seamed with deep dykes that it is rarely possible to go far in any direction without backtracking.

In some localities, therefore, notably Pevensey Levels and the Amberley/Pulborough marshes, only one complete count of the area covered was possible in each season. Inevitably some pairs may thus be missed but the figures are comparable and should give a clear idea of the order of the population. Some independent counts of parts of these areas were made by different observers with closely similar results. Where only one count was made it was timed for late May or early June. This timing is important: single counts earlier in May can, with passage still continuing, overestimate Yellow Wagtails; one later in June can underestimate Redshanks as dispersal to the coast may start in mid-June.

Coverage of the levels was incomplete but about 45% of the total area was fairly consistently counted and about 75% was visited at least once in the period 1965 to 1967. The only important area in which no counts were made is the Brede valley. The figures refer to pairs present because actual proof of breeding in the case of individual pairs was seldom obtained.

Results

The results are set out in Tables 1 and 2 and Figure 1. On Figure 1 the position and approximate extent of the main grass marshes is shown by the pattern of their main dykes, and the extent of each area surveyed is marked by a circle. The species found are indicated by symbols and each area is cross-referenced to Table 1 by a number. The most important omissions are the Brede Levels and the central part of Pevensey Levels. The marshes at Coombe Haven, being almost surrounded by built-up areas, are probably unimportant. All other known breeding sites are shown by symbols indicating the species present. Snipe records back to 1958 have been included to give a more realistic pattern of distribution in the interior. The important concentration of minor habitats shown in the Chichester Harbour/Pagham Harbour area total some 2 square miles and are regarded as one major area. These marshes and those around Rye Harbour differ from the river valleys in that much of the water in them is saline, which may have a significant effect on distribution. The marshes in the Pett/Rye area also differ somewhat from those further west in having a closer cropped sward; they are heavily grazed with sheep.

Table 1 summarises the counts, which have been published in full in the *Sussex Bird Reports* of 1965 to 1967. The approximate size of each main locality is given as is the approximate extent of each surveyed. And a range of figures showing the maximum and minimum number of pairs recorded, with the year of the maximum count and a tentative estimate of any changes in status in the period also given. Some details of distribution are also shown but this is outlined more fully under the specific headings below. Table 2 sets out the results of the Redshank survey from 1962 to 1964.

The figures are discussed in more detail under specific headings below. In general the maximum counts are considered most significant as the variations noted in Table 1 often reflect variations in observer coverage.

SNIPE

The records from the principal levels suggest that the species is now only thinly scattered except in the Arun valley, where an increase is possible; but even here numbers are low. It is apparently absent from coastal localities except on Pevensey Levels, a facet of distribution also described by Walpole-Bond (1938); possibly it is less tolerant of brackish water in its breeding habitat than the other species. It is, of course, more general than either Redshank or Yellow Wagtail in the interior, almost certainly more so than shown on Figure 1, and usually occurs in isolated pairs.

The total population found in the principal levels in each survey year was 42-44 pairs in 1965, 42 pairs in 1966 and c.50 pairs in 1967. The 1967 increase is confined to the Arun valley, where over half the year's total was found; in most other areas the species is declining, decreasing from c.30 to c.15 pairs between 1965 and 1967 in areas counted in each year.

Densities are low everywhere. The highest was in the Amberley/Pulborough marshes with 4 pairs per square mile in 1967. Elsewhere maximum densities varied from 0.5 to 2 pairs per square mile, with an average of 1.3. Since about 75% of the total habitat has been surveyed these figures suggest a total population of under 100 pairs and calculations based on the maximum densities give a figure of 84 pairs. With some areas uncounted and pairs possibly missed in localities counted only once annually this may be an underestimate for this is a most elusive species. The figures from each observer and each area in every year are too consistent to suggest that any large concentration has been missed, so that any error is likely to be small.

The county population is, of course, larger; despite incomplete records, Snipe are known to be still fairly well distributed in the interior. Altogether during the survey some 11 pairs have been found in 8 such sites. These were as follows: Broadhalfpenny Common (1); Sutton (3); Bewbush Pond (1); Chailly (1); Buckham Hill (1); Barcombe Res. (2); Glynde Marl Pits (1); Maresfield (1). Between 1958 and 1964 a further 7 pairs were recorded from 7 sites, which were as follows: Durford Mill Rogate, Fernhurst, Weir Wood Res., Isle of Thorns, Nutley Heath and Darwell Res. Figures in brackets show the number of pairs found; changes in status in these habitats are unknown.

An extensive decline in numbers has clearly taken place since 1938, when Walpole-Bond (1938) stated that up to 100 pairs bred in some of the largest levels. While this gives little exact idea of the county total it indicates a much larger population than now, implying something of the order of 500 pairs in the levels alone compared with less than 100 today. The breeding range, however, remains substantially the same as described by Walpole-Bond.

REDSHANK

The records for this species are more complete than for Snipe as probably most, if not all, minor breeding sites are known. Although still fairly widespread the species is becoming increasingly scarce in some parts of the main levels, and seems much less widely distributed in the interior than in 1938, although Walpole-Bond gives few sites. The figures suggest, however, that present declines are local and are being balanced by increases in other areas. Records for some localities from 1947 suggest that these local fluctuations are usual. It is also commonest near the coast in direct contrast to Snipe.

Annual totals between 1965 and 1967 were 118-123 pairs in 1965, 133-149 pairs in 1966 and c.151 pairs in 1967, of which 8 pairs in 1965, 13 pairs in 1966

and c.12 pairs in 1967 were in minor sites outside the main marshlands. Altogether 8 such sites are known containing about 16 pairs; sites not mentioned in Tables 1 or 2 are Goodwood, Sutton, Tillington and Buckham Hill, each holding one pair.

Although numbers fluctuate the overall figures counted each year 1965-1967 suggest little present change in status, a pattern confirmed by the figures from 1962-1964, except for a sharp decline after the 1962/63 winter. The species has since recovered. Densities are again rather low except in the Chichester Harbour/Pagham Harbour area with the exceptional maximum of 25 pairs per square mile. A high density might be expected here in view of the habitat. Elsewhere maximum densities vary from 1.2 to 6.5 pairs per square mile, with an average of 3.1. There is a much wider variation between areas than for Snipe, density in the lower Arun Valley (6.5) being markedly higher than any other, and in Pevensey Levels (1.2) and Glynde Levels (1.9) being well below average.

With little change in status during the period it seems reasonable to assume that these densities give a fair estimate of actual population. Calculations based on them give a total population of 234 pairs, Brede Levels and the Coombe Haven area being calculated at the average. With about 16 pairs added for other sites this gives an estimate of 250 pairs for the whole county. A fifth of this population breeds in the Chichester Harbour/Pagham Harbour area.

Again, a considerable decline has occurred since 1938 when Walpole-Bond (1938) stated that at least 3 of the largest levels held 100 pairs and inferred a larger population in minor sites; the species was then also increasing. Again these statements give little exact idea of total numbers for the county but suggest a population of over 300 pairs, probably over 400. Records since 1947 confirm the decline. In 1949 Thorney Island, the Pagham/Selsey area and Rye Harbour alone held c.150 pairs compared with c.35 now. An increase is probable in the lower Arun valley, from c.8 pairs in 1948 to 30 plus in 1967.

YELLOW WAGTAIL

The figures for this species are the most complete as the evidence shows that breeding outside the main marshes is now only sporadic, except at Barcombe Res., with one to 3 pairs annually. A pair also bred at Darwell Res. in 1965.

This is the only species which is still generally distributed in the main levels, except in the Arun valley below Amberley where it is unexpectedly scarce despite much apparently suitable habitat; it is common above Amberley. The breeding range has contracted elsewhere since 1938, for it no longer breeds in the Pagham/Selsey area, on the downs between Hove and Newhaven or at the Crumbles which are mentioned as breeding sites by Walpole-Bond (1938); nor does it breed now at Burton or Fittleworth (*South-Eastern Bird Reports* 1934-1936).

Numbers fluctuate considerably, annual totals varying from c.147 pairs in 1965, to 122-128 pairs in 1966 and c.141 pairs in 1967. In areas counted in each year totals have varied similarly, 139 pairs in 1965, 83 in 1966 and 98 in 1967; these figures also suggest a slow decline. Maximum densities are generally higher than for the other species, varying from 1.7 to 11 pairs per square mile, with an average of 4.4. With such wide variation between areas the average is perhaps meaningless.

With large annual differences in numbers, it is impossible to make a close estimate of total population. Calculations based on maximum densities give a figure of 270 pairs, based on minimum densities a figure of 150 pairs. The true figure probably lies between the two.

The decline of this species may well be less marked than that of the other two but Walpole-Bond (1938) gives no figures, so it is impossible to compare status then and now. But he does stress that it was much commoner in East Sussex than in West Sussex, which does not seem to obtain today; it seems possible that there has been an increase in the Amberley/Pulborough marshes since 1938.

The species has certainly declined since 1947 when c.100 pairs were counted in Pevensey Levels compared with c.35-70 now. Other figures are sparse, but between 20 and 36 pairs were noted at Rye Harbour G.P. between 1950 and 1953 compared with less than 10 today.

Up to 1938 the Blue-headed race, *M. f. flava*, also bred, mainly along the coast, and Walpole-Bond (1938) estimated its numbers as about 3.3% (one in 30) of the total Yellow Wagtail population, although there are no references in the S.E.B.R. to its breeding from 1934 to 1945. It no longer does so and there have only been 2 breeding records since 1947 and none since 1948.

History and causes of the declines

Despite some local increases now occurring, all the species have generally declined but it is not clear when this process began. If all species have been affected by the same factors it had started by 1947, when Redshank were described as greatly reduced on Pett Levels. In 1967 the only species breeding there was the Yellow Wagtail, with one pair. Yellow Wagtails, in fact, have probably been decreasing since 1939 (des Forges and Harber 1963). The decline continued throughout the nineteen-fifties and the very few figures available suggest that by 1956 Redshank and Yellow Wagtails stood at half their 1947 populations. Breeding information about Snipe from 1947 to 1964 is even less but it is now

TABLE 2. BREEDING PAIRS OF REDSHANK 1962-1964

Localities	Number of Pairs		
	1962	1963	1964
Thorney Island	NC	4	6
Fishbourne Creek and S.F.	NC	3	7-10
Marble End	NC	4	3
East Head	NC	NC	1
Harving	2	4-5	6
Havan	2	0	NC
Selsey-Sidlesham Ferry-Brackisham	20	15	17
Pagham Harbour Marshes	NC	6	NC
Behind Wall	4	2	2
Amberley Wildbrooks	NC	2	1
Greattham-Wiggonholt	NC	2	1
Adur Levels N. to Wyklham Farm	13	8	NC
Ouse valley S. of Lewes	1	5	NC
Ouse valley S. of Newhaven	2	(0)	0
Cuckmere Valley	7	2	0
Glynde Levels	17	NC	NC
Rye Marsh and Harbour	NC	7	11
Midrips/Wicks	NC	6	6
TOTAL	68	68-69	62-65

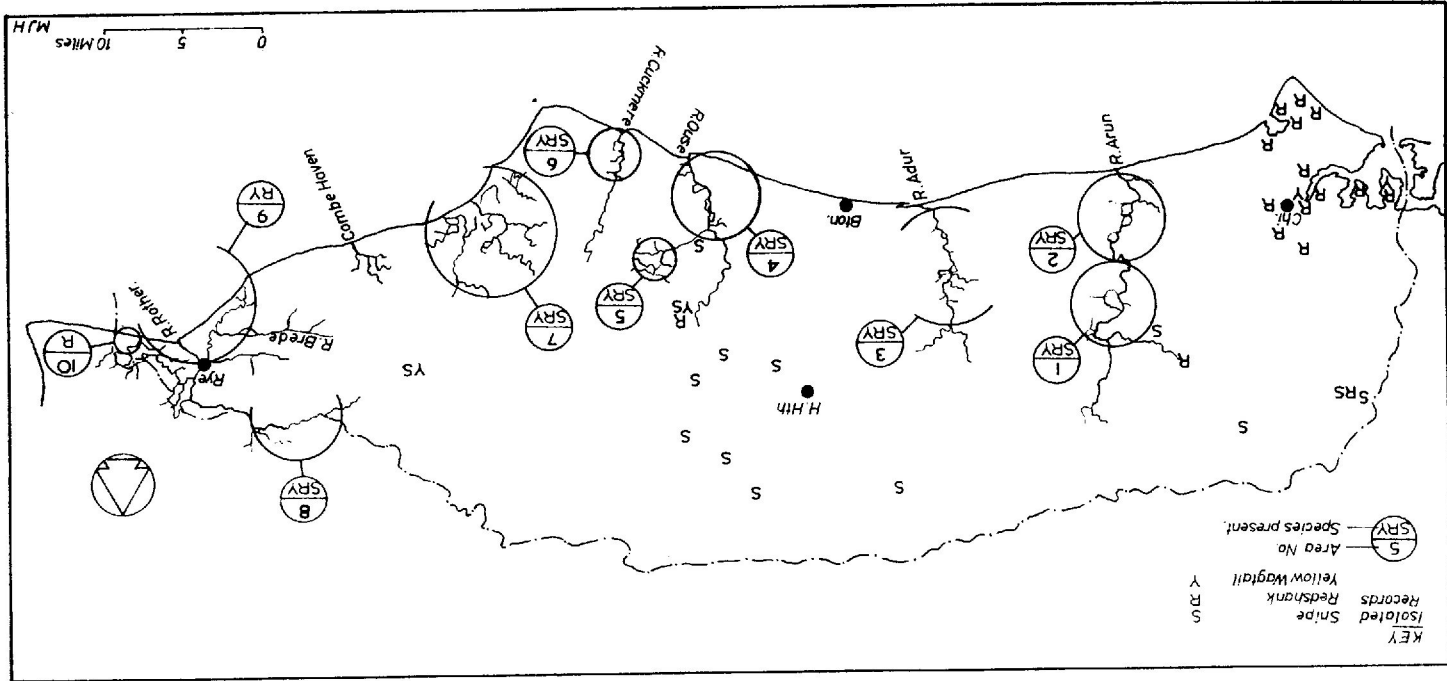
KEY: NC...Not counted

TABLE 1. NUMBER OF BREEDING PAIRS OF SNIBE, REDSHANK AND YELLOW WAGTAIL 1965 TO 1967

LOCALITIES	SNIBE	REDSHANK	YELLOW WAGTAIL
Harting	Does not breed	4-6 pairs each year	Does not breed
Lavant	Does not breed	3 pairs; 1966 only	Does not breed
Chichester G.P.	Does not breed	One pair	Does not breed
Thorney Island	Does not breed	6-10 pairs; max. 10 in 1965. Probably little change	5 pairs in 1965, one in 1966, NC in 1967
Fishbourne Creek and S.F.	Does not breed	6-8 pairs each year	One pair in 1965 and 1966
Chidham	Does not breed	1-2 pairs each year	Does not breed
Bosham	Does not breed	One pair in 1967	Does not breed
Manhood End	Does not breed	2 pairs each year	Does not breed
Selsey - Siddlesham Ferry-Bracklesham	Does not breed	12-19 pairs; max. 19 in 1965; incomplete count in 1967	Does not breed
Pagham Harbour, marshes behind N. wall	Does not breed	2-10 pairs; max. 10 in 1965; only 2 or 3 since, decline possible	Does not breed
1. Amberley/Pulborough marshes. C.5 square miles, all surveyed	11-20 pairs; max. 20 in 1967 when most complete count; increase possible	7-11 pairs; max. 11 in 1967 when most complete count; probably little change	10-41 pairs; max. 41 in 1967 when most complete count; varied but increase possible
2. Amberley-Littlehampton Lower Arun valley. C.41 square miles, all surveyed	1966 5 pairs, 1967 10 pairs but absent S. of Arundel. Increase probable	1966 10 pairs North Stoke - Lyminster; 1967 30+ pairs whole area. Increase probable	1966 one pair; 1967 3 pairs. Absent S. of North Stoke
3. Adur Levels. Total c.5 square miles, c.4 surveyed	3-5 pairs; max. 5 in 1965 when most complete count; probably no change. Absent S. of Coombes	4-c.15 pairs; max. c.15 in 1965 when most complete count; decline possible	7-20 pairs; max. 20 in 1965 when most complete count; decline probable
4. Ouse valley S. of Lewes. C.51 square miles, all surveyed	nil-4 pairs; max. 4 in 1965, nil in 1967; decline	4-15 pairs; max. 15 in 1966 when most complete count	c.5-13 pairs; max. 13 in 1966 when most complete count. Absent S. of Fiddinghoe
Barcombe Res.	1-2 pairs each year	c.3 pairs each year	1-3 pairs; max. 3 in 1966
5. Glynde Levels. Total c.64 square miles, c.41 surveyed	NC 1965, one pair 1966, 2 in 1967	NC 1965, 6 pairs 1966, c.8 in 1967	NC 1965, 4 pairs 1966, 9 in 1967
6. Cuckmere valley N. to Alfriston. C.14 square miles, all surveyed	2 pairs in 1965, none since; decline	3-5 pairs; max. 5 in 1967; increase possible	1-3 pairs; max. 3 in 1967; probably little change
7. Pevensey Levels. Total c.14 square miles, c.10 surveyed	12-21 pairs; max. 21 in 1965; decline	9-12 pairs; max. 12 in 1965 & 67; probably no change	26-55 pairs; max. 55 in 1965; decline
8. Rother Levels. Total c.34 square miles, c.24 surveyed	NC 1965, c.5 pairs 1966, c.3 1967; decline	NC 1965, c.8 pairs 1966, c.5 1967; probably little change	NC 1965, c.30 pairs 1966 & 67
Darwell Res.	Has bred	Does not breed	One pair in 1965, none since
9. Pett Levels. C.1 square mile, all surveyed	Does not breed	Does not breed	NC 1965; one pair 1966 & 67
9. Rye Harbour and Marshes. C.13 square miles, c.10 surveyed	Does not breed	13-21 pairs; max. 21 in 1966; fluctuates	10-13 pairs; max. 13 in 1967; probably little change
10. Midrips/Wicks. C.1 square mile, all surveyed	Does not breed	3-12 pairs; max. 12 in 1966; fluctuates	2 pairs 1965, none since; perhaps decline

NOTE. The numbers against certain localities refer to numbered areas on Figure 1. NC—Not Counted.

FIGURE 1. BREEDING SEASON DISTRIBUTION OF SNIBE, REDSHANK AND YELLOW WAGTAIL IN SUSSEX



REPORT ON WADER COUNTS IN 1967

By

M. SHRUBB

evident that the species has decreased more than the others and is apparently still doing so. Redshank numbers now seem fairly stable but Yellow Wagtails are harder to assess, for short term fluctuations appear normal.

Two factors are probably responsible for the declines: firstly widespread drainage of the marshes and their more intensive agricultural use, including the ploughing up of some areas; and secondly the disturbance and loss of habitat along the coast due to building and the rise of the holiday industry. Casual human disturbance has also been a contributory factor away from the coast.

The second factor, while hardly affecting Snipe, has certainly restricted the breeding range of Redshank and Yellow Wagtail. Yellow Wagtails have probably been least affected by drainage, being less dependent on wet patches or a high water table for feeding areas than either Snipe or Redshank. Snipe have probably been most affected by drainage since, unlike Redshank, they appear unable to breed near saltings and are even more dependent on boggy places for feeding. Redshank have bred successfully, although only occasionally, in quite dry areas, for example Goodwood motor-race track in 1966. The more intensive agricultural use of the levels, with the general improvement of pastures could be the most important factor, for all these species are primarily birds of rough grazings needing long, coarse herbage for nest concealment.

All these points need further study but the Arun Valley is now clearly the most important single area for all these species, for nowhere else do so many pairs of each species occur together.

Summary

A breeding survey of the Redshank *Tringa totanus* was made from 1962 to 1967 and of the Snipe *Gallinago gallinago* and Yellow Wagtail *Motacilla flava flavissima* from 1965 to 1967. The results of these surveys are set out in Tables 1 and 2 and Figure 1. Estimates of the total county populations are Snipe 100 + pairs, Redshank 250 pairs and Yellow Wagtail 150-270 pairs. Comparison with past records indicates an extensive decline of all three species. A history of these declines as far as is known is given and probable causes suggested: viz drainage of wetland pastures and increased human disturbance.

Acknowledgements

I am grateful to the members of the Records Committee of the Society for much help and useful comment on the preparation of this paper, and to the many members of the Society who helped with the surveys. My thanks are also due to M. J. Helps who drew the map.

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The series of wader counts in Chichester and Pagham Harbours started in 1964 was continued in 1967, on the same basis and covering the same roosts as in previous years (*Sussex Bird Report* 1965, 53), except that only one count was made in June. In addition counts were also tried at Bosham, but few waders were found. The counts were again incomplete, largely through factors beyond our control, but the only count entirely missed was in Pagham Harbour in January. The November and December counts were curtailed by the foot-and-mouth disease restrictions; Chidham could not be visited in November and in December only Pilsey Island and parts of Pagham Harbour could be covered. For the same reason the usual winter count along the whole coastline was cancelled, many of the roosts being on agricultural land.

For the first time we have comparable figures for January and February and these show a much lower wader population in Chichester Harbour in January 1967, compared with 1966, when there was an influx of Curlew and Bar-tailed Godwit apparently associated with a cold spell. These species and Oystercatcher, Redshank and Dunlin were all far less numerous in 1967, although a marked increase in the latter two in the February count suggests that they may have been under-recorded. The February figures were very similar in both years but Dunlin were much more numerous in Pagham Harbour in 1967, when Curlew and Redshank were also more abundant. Few Knot were present despite the unusually large passage in the autumn of 1966, and the absence of Black-tailed Godwit is remarkable. This species is sometimes missed by these counts as its roosting and feeding habits are not consistent. One Little Stint was seen in January and one Greenshank was wintering, but no Spotted Redshanks or Common Sandpipers.

Spring departures of two species, Ringed Plover and Bar-tailed Godwit, had possibly started as early as the February count and by the March count, Oystercatcher, Lapwing, Turnstone, Redshank and Dunlin were all leaving and there was a further decrease in Ringed Plovers and Bar-tailed Godwit. Grey Plover, Curlew and Sanderling departures were not noted until April, when movement of most other species continued. Spring passage through the area, as opposed to departure of wintering birds, is not often very marked in these counts but was evident in May with a large Ringed Plover movement and smaller movements of Turnstone, Knot and Sanderling and possibly Oystercatcher. The fairly large Bar-tailed Godwit movement noted in the April and May sea-watches does not show in the figures.

With no count in mid-June it is impossible to assess the summering population but the count on the 25th showed that return passage was, as usual, already in progress with increases of Lapwing, Grey Plover, both Godwit species and Redshank noted and one Spotted Redshank present. Curlew at this time were unusually few.

It was undoubtedly a good autumn for waders, in particular the less common species, although records from elsewhere reveal this aspect more than the counts. In the counts many species were more numerous than in 1966 and the peak counts of four species; Ringed Plover, Grey Plover, Whimbrel and

TABLE I. MONTHLY WADER COUNT

Species	15 Jan.	12 Feb.	12 Mar.	23 Apr.	21 May
	Chi. Pag.	Chi. Pag.	Chi. Pag.	Chi. Pag.	Chi. Pag.
Oystercatcher	.. 720	nc 710	550 95	55 100	420 75
Lapwing	.. 110	nc 350	0 270	0 40	10 20
Ringed Plover	.. 95	nc 65	35 30	45 35	60 315
Grey Plover	.. 310	nc 315	55 250	130 2	50 7
Golden Plover	.. 95	nc 15	40 3	750 0	0 0
Turnstone	.. 65	nc 20	130 30	35 0	60 60
Snipe	.. 25	nc 30	1 80	20 20	0 1
Jack Snipe	.. 5	nc 4	0 2	0 1	0 0
Curlew	.. 600	nc 710	170 700	300 20	125 85
Whimbrel	.. 0	nc 0	0 0	0 26	20 4
Black-tailed Godwit	.. 0	nc 0	0 145	240 80	5 0
Bar-tailed Godwit	.. 505	nc 330	135 10	50 45	30 35
Green Sandpiper	.. 0	nc 0	0 0	0 0	0 0
Wood Sandpiper	.. 0	nc 0	0 0	0 0	0 0
Common Sandpiper	.. 0	nc 0	0 0	0 2	2 0
Redshank	.. 410	nc 1085	50 775	65 230	20 60
Spotted Redshank	.. 0	nc 0	0 0	0 0	0 0
Greenshank	.. 0	nc 1	0 1	0 5	0 0
Knot	.. 8	nc 9	0 4	40 0	0 15
Purple Sandpiper	.. 0	nc 0	0 0	1 0	0 0
Little Stint	.. 1	nc 0	0 0	0 1	0 0
Dunlin	.. 6330	nc 10150	4850 3710	1000 1820	950 1000
Curlew Sandpiper	.. 0	nc 0	0 0	0 0	0 0
Sanderling	.. 20	nc 85	40 85	4 30	0 65
Ruff	.. 0	nc 1	0 3	3 0	0 0

NOTE: nc—no count. ?—species present but not counted. Chi.—Chichester Harbour. Pag.—Pagham Harbour.

TOTALS IN WEST SUSSEX 1967

Species	25 June	23 July	20 Aug.	17 Sept.	22 Oct.	19 Nov.	31 Dec.
	Chi. Pag.	Chi. Pag.	Chi. Pag.	Chi. Pag.	Chi. Pag.	Chi. Pag.	Chi. Pag.
Oystercatcher	245 30	4 95	355 160	1020 180	1270 400	660 165	365 55
Lapwing	55 0	220 35	765 120	580 30	360 700	110 0	70 0
Ringed Plover	20 10	1 35	865 385	90 25	85 50	180 65	3 ?
Grey Plover	15 20	4 80	505 35	1455 95	780 40	185 45	265 70
Golden Plover	0 0	0 0	55 0	3 35	255 0	40 0	0 0
Turnstone	2 0	0 0	25 40	75 35	65 70	45 40	10 ?
Snipe	0 0	0 0	10 0	15 1	25 0	6 0	2 0
Jack Snipe	0 0	0 0	0 0	0 0	0 0	0 0	0 0
Curlew	15 35	715 275	1345 350	525 230	880 350	95 170	85 ?
Whimbrel	0 0	200 50	230 65	10 0	2 0	0 0	0 0
Black-tailed Godwit	35 0	405 0	355 0	30 0	410 0	245 50	0 0
Bar-tailed Godwit	55 10	400 10	430 5	475 5	115 25	360 5	525 20
Green Sandpiper	0 0	3 0	10 0	4 0	0 0	0 0	0 1
Wood Sandpiper	0 0	0 0	0 2	0 0	0 0	0 0	0 0
Common Sandpiper	0 0	10 6	10 3	6 3	0 0	0 0	0 0
Redshank	95 15	1740 65	3535 40	3820 75	2240 50	360 30	15 110
Spotted Redshank	1 1	50 0	20 0	25 0	30 0	1 0	0 0
Greenshank	0 0	25 2	35 6	40 0	50 0	1 0	0 0
Knot	10 0	0 0	2 5	3 15	0 55	70 4	15 1
Purple Sandpiper	0 0	0 0	0 0	1 0	0 0	0 0	0 0
Little Stint	0 0	0 0	0 3	20 15	1 0	0 0	0 0
Dunlin	65 20	2000 495	2000 290	6045 450	12065 250	11625 2855	6000 2580
Curlew Sandpiper	0 0	0 0	0 0	0 3	0 0	0 0	0 0
Sanderling	1 0	0 0	1 195	3 375	0 260	1 120	20 30
Ruff	0 0	2 0	3 5	0 2	1 0	0 0	0 0

SUMMARY OF BIRD RINGING IN SUSSEX, 1967

Compiled by

A. QUINN

A noticeable trend in recent years, which has come to light while collecting ringing data for the report, is the steady decline in the number of ringers operating within the county. They have dropped from a maximum of 21 in 1962, when 14,000 birds were ringed, to 13 in 1967 when 10,795 birds of 89 species were ringed. Intermediate years have sometimes produced considerably higher ringing totals, mainly due to enthusiastic participation in the Sand Martin enquiry by the Chichester Ringing Group. At present about half a dozen ringers or groups account for over 90% of the birds ringed.

The year's crop of recoveries follow, in the main, the usual pattern with the notable exception of the Wood Warbler, one of 33 ringed by P. G. Davis, which was recovered in Italy some six weeks later. Other less usual species ringed by him in the Haslemere district included 86 Siskins and 2 Crossbills.

Notes on ringing at Beachy Head and Chichester Gravel Pits are given below—at both localities several unusual birds were trapped and elsewhere a Collared Dove was ringed by J. A. Wigzell and 2 young Nightjars by P. Wilson.

BEACHY HEAD RINGING STATION

During 1967 the Ringing Station became autonomous, and we wish to thank the Council of the Society for their assistance in the development of the Ringing Station and in particular for their generous donation of equipment. The Station is now run by a committee, consisting of R. H. Charlwood (Chairman), A. Quinn (Secretary), M. E. Nolan (Treasurer), B. E. Cooper and K. Verrall. Our thanks are also due to the Eastbourne Council for their assistance in the transfer of the deeds for the hut in Whitbread Hollow from the Society to the Ringing Station committee.

The year was one of the most successful yet, with 2,540 birds being ringed, as set out below—a total exceeded only in 1965. Nearly all the migrants caught were weighed and measured and the results will be submitted to an investigation run under the auspices of the B.T.O. Among the more notable birds caught were a spring Icterine Warbler (the second record for the county), a Bluethroat, 2 Wrynecks, and on the Crumbles, a Red-breasted Flycatcher (the second record for the county) and 8 Bearded Tits—3 of the latter had already been ringed at Minsmere. A Red-rumped Swallow was watched for several hours feeding over Whitbread Hollow in April.

The area was well watched during 1967, 10 Society members regularly visited the area and many others made occasional visits. The area was covered on 27 days in spring and 47 days, including 3 weeks of continuous watching, in autumn. Another feature of note was that 3 people obtained ringing permits during the year and the training of another 2 people is almost completed. We would like to remind members that one of the aims of the Ringing Station is to train people in the art of ringing and that we will always be pleased to assist any Society member who wishes to start ringing. Any member wishing to take advantage of this offer should contact A. Quinn.

Redshank were the highest yet recorded. Ringed and Grey Plover were especially abundant, with a combined total of 1,250 of the former in both harbours in August and of 1,550 of the latter in September—these are exceptional totals. More Little Stints than usual were noted and three Curlew Sandpipers, a species rarely detected, were seen on the September count. Five species, Turnstone, both Godwits, Greenshank and Knot were rather fewer, Knot were particularly scarce, although by contrast the 1966 figures had been unusually high.

Patterns of movements differed somewhat from 1966 with peak numbers of the following species occurring earlier: Oystercatcher (Oct.), Ringed Plover (Aug.), Lapwing (Aug.), Green Sandpiper (Aug.), Redshank (Sept.), Spotted Redshank (July) and Sanderling (Sept.). Peak numbers of two species, Curlew (Aug.) and Greenshank (Oct.) occurred later. Despite these annual variations in movements a fairly consistent pattern is emerging from the figures, except that peak Curlew numbers have so far occurred in a different month each year. Once again passage continued into November. Unfortunately, it is impossible to compare the December population with previous years.

I wish to thank the following observers for their assistance with these counts, their efforts are greatly appreciated. I am also most grateful to Dr. M. Hollings for undertaking the organisation in 1967 and again in 1968, when the counts are continuing.

R. E. Goddard, T. E. Hale, Dr. M. Hollings, L. G. Holloway, M. A. Jennings, H. P. Kay Robinson, A. R. Kitson, B. A. E. Marr, B. Metcalfe, R. F. Porter, R. J. Sandison, E. T. Welland, R. Williamson, I. R. Willis.

The year's ringing totals are set out below:

Kestrel	1	Wheat	53
Wren	2	Firecrest	3
Swallow	38	Spotted Flycatcher	27
House Martin	32	Pied Flycatcher	8
Sand Martin	1	R.B. Flycatcher	1*
Great Tit	14	Hedge Sparrow	80
Blue Tit	82*	Meadow Pipit	3
Marsh Tit	2	Tree Pipit	2
Willow Tit	1	Starling	7
Long-tailed Tit	4	Greenfinch	81
Bearded Tit	5*	Linnet	49
Treespinner	2	Goldfinch	10
Wren	92	Redpoll	2
Mistle Thrush	2	Bullfinch	37
Song Thrush	87	Chaffinch	11
Ring Ouzel	3	House Sparrow	7
Blackbird	59	Tree Sparrow	3
		Total	2,540

* The following were trapped away from Beachy Head: 5 Bearded Tits, 3 Blue Tits, 1 Robin and a Red-breasted Flycatcher

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CHICHESTER RINGING GROUP

The Chichester Ringing Group is an informal, seasonal ringing group formed in 1963 to take advantage of the vast potential of the Chichester Gravel Pits for the furtherance of the special B.T.O. Ringing Studies.

The first of these was the Sand Martin Inquiry. Experienced ringers came from far and wide to help us, and in four short seasons we handled over 22,000 Sand Martins. More than 750 of these already bore rings from all parts of the country, and over a thousand of our own rings have been recovered. Details published in the *Sussex Bird Report* have been necessarily highly selected, but the maps in the 1962 and 1963 Reports give a fair impression of what has happened each year since.

The Sand Martin Inquiry is now over, and the birds must have realised this. Numbers in the reed bed roost have diminished steadily since the 1963 peak and in 1967 there was no regular roost at this site.

We are now engaged in the *Acrocephalus* Inquiry. By encouraging ringers to concentrate on Sedge and Reed Warblers the B.T.O. hope to increase the re-trapping and recovery rate in the same way, if not on the same scale, as they did for Sand Martins. Again, the Gravel Pits are an ideal site, and we have been able to ring just over a thousand Sedge Warblers during each of the past four summers and an interesting pattern is beginning to emerge. The Sedge Warbler total to date is 4,467 and that of Reed Warblers only 935, but the majority of the Sedge Warblers are young birds caught once in July-September and not seen again. The Reed Warbler total, on the other hand, contains a high proportion of adult birds which are trapped again and again through the season and also in successive years.

The work of the Ringing Group is rather specialised and is concentrated on these special studies. Because of a permanent shortage of help no attempt can be made to chase birds of other species which would swell the totals, but many are caught incidentally in the nets set for martins or warblers. Thus we have ringed 46 Kingfishers and 85 Long-tailed Tits, and have had our share of rarities which have been listed in the systematic parts of the *Sussex Bird Report*.

We would like to thank all those who have come to Chichester at different times and helped to produce the grand total to date of 31,602 birds ringed, and as always we are grateful to Mr. A. D. Heaver, of John Heaver Ltd., for permission to work on his property.

A. B. WATSON
C. J. MEAD

SELECTED LIST OF RECOVERIES REPORTED IN 1967

Key to symbols and terms
(Ring numbers are omitted)

Age pull.—nestling or chick, not yet flying
juv.—young, able to fly freely
1st W.—bird in its first winter;
fg.—full grown (age uncertain)
ad.—adult, at least one year old
1Y.—first year bird in the plumage assumed at its first (post juvenile) moult.
Manner of Recovery v.—caught or trapped and released with ring;
+—shot or killed by man;
x—found dead or dying;
O—caught or trapped alive and not released, or released but with ring removed.
/?—Method of recovery unknown.

Sex ♂—male
♀—female

Distance

The distance is given in miles and directions are approximate.

Birds ringed in Sussex

Seven recoveries were reported of birds which had been ringed along the coast. The maximum movement was 42 miles ENE. The oldest bird was six years, however, Mute Swan ringing was only permitted for the first time a few years ago.

Mute Swan

juv.	15.8.61	Chichester G.P. (CRG)
v	6.6.65	Coond, Shrewsbury, Salop. 150m. NW.
v	19.7.67	Coond, Shrewsbury, Salop. 150m. NW.

The above recovery is of a bird six years old and another of five years was reported, both having exceeded the normal life expectancy of this species.

Sand Martin

The recoveries in the table below have been selected from 69 reported to the Chichester Ringing Group during the year. Most birds were ringed as juveniles.

Date ringed at Chichester G.P.	Date Recovered	Key	Locality recovered
2.9.63	2.7.67	v	Chorley, Lancs. 205m. NNW.
7.8.64	1.7.67	v	Ratray, Perth, 410m. N.
28.8.64	16.7.67	v	Addington, Bolton, Lancs. 206m. NNW.
6.8.65	16.6.67	v	Churchtown, Garstang, Lancs. 225m. NNW.
7.8.65	29.7.67	v	Embleton, Alnwick, Northumberland, 315m. N.
7.8.65	5.9.65	v	Artix, Basses Pyrenees, France
	21.7.67	v	Stanford-in-the-Vale, Berks. 62m. NNW.
12.8.65	17.6.67	v	Rothiemurchus, Inverness. 445m. N.
29.8.65	6.6.67	+	Cresswell, N. Ashington, Northumberland, 310m. N.
21.4.66	25.8.67	v	Shotton, Flint. 187m. NW.
12.9.65	26.8.67	+	Embalse del Rio Zuñar, Spain

Sand Martin	Juv. v	3.7.66 30.4.67	Storrington. (L & JW) Rethoville, Gatteville, Manche, France	Willow Warbler fg. v	13.8.63 12.6.66 11.6.67	Nr. Haslemere (PGD) Aysgarth, Leyburn, Yorks. 225m. N. Aysgarth, Leyburn, Yorks. 225m. N.
Song Thrush	PJ. +	14.10.66 7.1.67	Shoreham (SOS) Vila Nova de Guarem, Beira Litoral, Portugal	Wood Warbler fg. /?	6.7.67 29.8.67	Nr. Haslemere (PGD) Nr. San Marcello, Pistoiese, Italy
Blackbird	fg. /?	29.12.64 25.2.67	Nr. Haslemere (PGD) Waldeck, Hessen, Germany	Yellow Wagtail juv. v	22.8.64 16.8.67	Church Norton (L & JW) Wolvercote, Oxford. 75m. NNW.
Stonechat	juv. +	6.8.67 10.12.67	Beachy Head (BHRS) Castellon de la Plana, Castellon, Spain	Starling fg. +	7.1.63 25.8.66	Shoreham (DS) Shumynchi, Smolensk, U.S.S.R.
Reed Warbler	juv. v	5.9.66 18.5.67	Chichester G.P. (CRG) Springfield, Chelmsford, Essex. 82m. NE.	1Y.	9.1.67 3.4.67	Shoreham (DS) Bartoszyce, Olsztyn, Poland
Sedge Warbler	juv. v	7.8.65 3.7.67	Chichester G.P. (CRG) Whisby, Nr. Lincoln. 165m. N.	fg. ♀	25.1.64	Burgess Hill (JAW)
Blackcap	juv. v	7.7.67 27.8.67	Burgess Hill (JAW) Beachy Head (BHRS). 22m. SE.	Ring recoveries have shown that large numbers of Starlings annually migrate from Poland, W. Russia and E. Germany to winter in Britain and it is sometimes suggested that they are responsible for the outbreaks of foot-and-mouth disease which occasionally occur at this time of year.	15.6.67 12.5.67	Ostroda, Olsztyn, Poland
Whitethroat	1stW. +	15.8.65 27.4.67	Beachy Head (BHRS) Ciboure, St. Jean de Luz, Bases Pyrenees, France	juv. 0	31.7.66 7.7.67	Beachy Head (BHRS) Piedrahita, Avila, Spain
Willow Warbler	pull. v	4.6.67 28.7.67	Streat (AGH) Nr. Betete, Genouillat, Creuse, France	fg. /?	4.10.66 18.2.67	Nr. Haslemere. (PGD) Pompejac, Gironde, France
	fg. /?	25.7.67 16.8.67	Streat (AGH) Nr. Betete, Genouillat, Creuse, France	PJ. 0	9.10.66 23.11.66	Beachy Head (BHRS) Orduna, Vizcaya, Spain
	ad. ♂ /?	1.7.64 16.12.64	Streat (AGH) Branosera, Palencia, Spain	juv. v	20.9.64 15.12.67	Eastbourne (the late D. D. Herber) Montejo de Arevalo, Segoria, Spain
	pull. v	4.6.67 28.7.67	Streat (AGH) Cobham Woods, Rochester, Kent. 40m. NNE.	fg. ♀ v	19.8.67 26.10.67	Chichester G.P. (CRG) Arcangues, Ustaritz, Bases Pyrenees, France
	fg. /?	27.8.66 1.5.67	Nr. Haslemere (PGD) Halifax, Yorks. 190m. NNW.	PJ. ♂ v	13.9.67 27.10.67	Chichester G.P. (CRG) Pissos, Landes, France

Linnet	fg.	18.10.64	Beachy Head (BHRS)	
	x	? 10.67	Anglet, Basses Pyrenees, France	
Chaffinch	juv.	1.7.64	Streat (AGH)	
	/?/	14.10.64	St. Geours de Maremne, Landes, France	
				Ringling recoveries suggest that SW. France and NW. Spain are important wintering areas for both Goldfinches and Linnets.
Tree Sparrow	PJ. ♀	22.12.66	Shoreham (SOS)	
	v	4.11.67	Wuustwezen, Antwerp, Belgium	
Dunlin	fg.	18.1.66	Nr. Haslemere (PGD)	
	/?/	6.4.67	Borggardet, Kopparberg, Sweden	
Black-headed Gull	1Y.	8.9.64	Streat (AGH)	
	v	25.7.67	Dungeness, Kent. 47m. W.	
Birds ringed elsewhere and recovered in Sussex				
Swallow	?	13.5.67	Skokholm, Pembro.	
	x	29.7.67	Harting. 195m. ESE. (GRG)	
Sand Martin	pull.	8.7.66	Saaksraki, Janissalo, Finland	
	0	7.1.67	Southwick. 1200m. SW.	
Bearded Tit	juv.	21.8.66	Lower Withington, Macclesfield, Cheshire	
	v	12.9.67	Chichester G.P. 175m. SSE. (CRG)	
Black-headed Gull	juv.	19.8.66	Bedworth, Warwicks.	
	v	26.8.67	Chichester G.P. 115m. S. (CRG)	
Tree Sparrow	juv.	17.8.67	Carlton in Lindrick, Worksop, Notts.	
	v	14.9.67	Chichester G.P. 173m. S. (CRG)	
Bearded Tit	ad.	23.7.65	Ware, Herts.	
	v	26.8.67	Chichester G.P. 74m. SSW. (CRG)	
Black-headed Gull	juv. ♂	2.7.67	Minsmere, Suffolk	
	v	21.10.67	Crumbles, Eastbourne. 115m. SSW. (BHRS)	
Tree Sparrow	PJ. ♂	25.9.67	Minsmere, Suffolk	
	v	21.10.67	Crumbles, Eastbourne. 115m. SSW. (BHRS)	
Black-headed Gull	juv. ♀	27.6.67	Minsmere, Suffolk	
	v	21.10.67	Crumbles, Eastbourne. 115m. SSW. (BHRS)	
Tree Sparrow	juv.	5.7.64	St. Ouen, Jersey	
	v	17.5.67	Chichester G.P. 150m. NE. (CRG)	