

The Sussex Bird Report

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THE SUSSEX BIRD REPORT

NUMBER FORTY-ONE, 1988

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Editor: P. F. Bonham

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Cover drawing of Little Bittern by John Reaney

Text illustrations by David Codd

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National Surveys:

New Atlas of Breeding Birds in Britain and Ireland: Work commenced on this 3-year survey, carried out by the BTO/IWC/SOC and organised in West Sussex by Mrs V. Bentley, 4 The Poppers, Yapton, Arundel and in East Sussex by M. Scott-Ham, 45 Great Brooms Road, Tunbridge Wells, Kent. All contributors are thanked for their participation in this exciting project.

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

Wildfowl Counts: The counts in Sussex are organised for the Wildfowl Trust by D. W. Codd, 12 Broome Close, Horsham, West Sussex, who has made them available to the Society for this Report. Counters were:

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Estuary Counts: The BTO/RSPB/NCC 'Birds of Estuaries Enquiry' was carried out between September 1988 and March 1989 and organised by T. W. Parmenter, 22 The Kiln, Burgess Hill, West Sussex. The counters were:

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The Systematic List was compiled by P. James with much help from the following to whom grateful thanks are again due: A. S. Cook (passage waders); J. E. S. Cooper (tits and Treecreeper); R. D. M. Edgar (marshland birds, inland sawbills); R. J. Fairbank (scarcer migrants, rarities); S. W. M. Hughes (inland wildfowl, woodpeckers); C. R. Janman (terns and skuas); M. Kenefick (scarce raptors); R. Leverton (*Sylvia* warblers, Goldcrest); Dr J. A. Newnham (gulls, Nightingale); K. Noble (wagtails, larks, buntings); R. J. Sandison (owls); M. Scott-Ham (heathland species, breeding raptors); Dr A. B. Watson (Heron); and T. J. Wilson (divers, scarce grebes, shearwaters).

Text illustrations:

David Codd's drawings show Little Egret (p.17), Red Kite (p.27), Broad-billed Sandpiper (p.36), Black-eared Wheatear (p.58), Ring Ouzel (p.59), Sand Martins (p.77), Little Grebes (p.87) and Starling (p.96).

REVIEW OF 1988

by Paul James and Roy Sanderson

January was one of the mildest and wettest for many years with a series of fronts crossing the country from a mainly south-west direction. Some areas recorded four times their normal rainfall during the month while London had its wettest January since records began in 1940. A temporary break in this weather pattern for 3 days from the 15th produced easterly winds over Sussex and widespread fog but this was followed by a return to changeable conditions. A weak ridge brought the first frost to the county for some time on the 21st but a warm front quickly restored temperatures, mild wet weather continuing to the end of the month.

As a result of the unusually mild weather, birds such as **grey geese**, **Hen Harriers**, winter **thrushes** and **Bramblings** were very scarce or absent. There were, however, a few reports of species normally associated with cold weather. **Smew** were recorded at Bewl Water (2), Rye Harbour (2) and Arundel and there were up to 7 **Goosanders** at the former locality during the month. **Scaup** appeared in good numbers with maximum counts of 11 at Rye Harbour, 8 at the Crumbles and 8 at Pagham Lagoon. The regular herd of **Bewick's Swans** in the Arun Valley reached a peak of 81 and there were also 5 on Lewes Brooks, an increasingly regular wintering site for the species. **Short-eared Owls** were very scarce in the west of the county but at least 4 were recorded on Pevensey Levels. Other notable January sightings included a **Cetti's Warbler** throughout the month at a regular wintering site, 2 **Great Northern Divers** at Church Norton on the 7th, a **Curlew Sandpiper** at Pilsley on the 10th, a **Great Grey Shrike** in the Cuckmere Valley on the 12th, a **Bittern** at Pondlye on the 16th and a **Red Kite** over Lancing on the 21st. A **Little Auk** was picked up dead at Shoreham on the 9th.

February was the sunniest on record in southern England. The month opened with an intense low pressure area which arrived over Ireland on the 1st and then continued to move north-east across the British Isles with very strong winds on its southern flank. This was followed by alternating periods of wet and windy weather with weak ridges in between. Mild southerly winds on the 14-15th resulted in the highest mid-February temperatures in southern England since 1961, with London warmer than the Algarve! A warm front that had moved north returned as a weak cold front and a high pressure area developed behind it, bringing more settled cooler weather on the 16th. A springlike week followed with light, mainly north-westerly, winds and temperatures as high as 11°C on the coast. On the 22nd a low that had tracked across northern Scotland moved south-east across the North Sea. This resulted in an associated cold front moving south producing more northerly winds and a few flakes of snow across the county and a covering in Kent. Cold winds between north-east and north-west continued until the end of the month. Numbers of many winter visitors continued low although there were 2 **Lapland Buntings** on Broomhill Level on the 7th and the **Smew** at Rye Harbour increased to 7. **Long-tailed Ducks** were recorded at the Crumbles, Pagham Harbour, Pett (3) and Rye Harbour and there was a **Great Northern Diver** off Bracklesham on the 21st-22nd. A party of 5 **Bean Geese** at Scotney Court GP from the 20th remained into March and the **Black Brant** present at Thorney Island from November 1987 was last seen on the 21st. Up to 25 **Slavonian Grebes** were recorded off Church Norton during the month and 10 in Chichester Harbour. The regular adult **Glaucous Gull** was recorded on several occasions in the Selsey area and there was a different adult at the Crumbles on the 28th. A first-winter bird at Church Norton on the 21st was possibly that at Worthing and Seaford on the 3rd and 24th March respectively.

March opened with cold northerly winds sandwiched between an area of high pressure to the west and a low over Scandinavia. Light snowfalls occurred on the east coast and there were a few snow flurries in Sussex. Frosts were just severe enough to freeze the margins of some reservoirs and shallow ponds. On the 5th the high drifted south, re-introducing mild westerly winds with quiet, mainly cloudy, weather. Snow fell as far south as the Midlands and East Anglia on the 12th and for several days there was a marked contrast in temperatures between northern and southern England. A warm front over western districts made only erratic progress eastwards until on the 18th heavy rain heralded the arrival of very mild Atlantic air. The remainder of the month continued mild with above-average rainfall and strong winds as a succession of fronts crossed the country.

A **House Martin** was recorded at Brighton on the 3rd and there was also a **Sandwich Tern** at Church Norton on this date. A **Wheatear** appeared at Newhaven Tidemills on the 6th followed by the first **Chiffchaff** on the 17th, **Arctic Skua** on the 19th, **Sand Martin** on the 20th, **Swallow** on the 22nd, **Little Ringed Plover** on the 24th and **Yellow Wagtail** on the 26th. **Nightingales** at Littlehampton West Beach on the 21st and at Church Norton on the 29th were the earliest county records. A marked influx of **Shags** was noted during the month, including up to 7 at Brighton Marina, an exceptional 15 at Shoreham Harbour on the 16th, 5 at Weir Wood Reservoir on the 7th and 2 at Lindfield Pond from the 15th into July. **Red Kites** at Walberton on the 5th and at Brighton and Seaford on the 22nd were part of a national influx at this time. A most unusual record was that of 3 **Puffins** off Pett on the 29th but this was overshadowed by the finding of an exhausted male **Little Bittern** at Hove on the 30th. Released later that day at Oreham Common, it remained until the 12th April during which time it decimated the local newt population in its search for food (see note on pp. 88-89). A **Marsh Harrier** at Rye Harbour on the 30th was the first of 17 recorded during the spring.

A high to the west of Iberia moved north-east on the 2nd April bringing warm weather for a day, but followed on the 3rd by cold north-east winds which persisted until the 8th. A cold front moved south on the 9th bringing sleet to the county and this was followed by a further period of winds from the east or north-east. The wind swung to the south-west on the 15th resulting in heavy rain and coastal fog on the 16th. A low to the west of Britain continued to pump warm moist air across the country until the 21st when cold arctic air moved south across the North Sea. This spread westwards the next day with strong easterly winds producing a marked temperature contrast between the east and west coasts of Britain. A shallow low formed to the east of Scotland and then moved down the east coast, slackening winds which became light and variable on the 25-27th with some rain and thunder in south-east England. April closed with light south to south-east winds and a succession of slow-moving fronts which gave some rain.

A **Spoonbill** was recorded in Chichester Harbour on the 2nd and another **Red Kite** on the 5th at Fairlight. Light south-east winds on the former date provided ideal conditions for sea-watching at Beachy Head where there were 45 **divers**, 15 **Velvet Scoters**, 2 **Arctic Skuas**, 90 **Sandwich Terns** and 2 '**Commie**' **Terns**. In addition, there were 3 **Black-necked Grebes** off Worthing. A **Bittern** was present at Combe Haven from the 9th to at least the 24th and there were 6 **Dotterel** at Balsdean and 9 **Ring Ouzels** at Newmarket Hill on the 15th. **Common Scoter** passage was particularly heavy on the 14-15th with 4122 E recorded at Seaford while on the 16th there were 105 **Little Gulls** at this site. The first of 5 **Hoopoes** reported during the spring was seen at West Wittering on the 16th and there was a **Goshawk** over Bexhill on the 17th. Other unusual species during the month included a **White Stork** at Rackham on the 23rd, an **Osprey** at Waltham Brooks

on the 24th and a male **Montagu's Harrier** at Church Norton on the 26th. Summer migrants were generally early in arriving with, for example, **Whitethroat** on the 1st, **Garden Warbler** and **Lesser Whitethroat** on the 10th, **Cuckoo** on the 11th and **Turtle Dove** on the 13th. An influx of **Pied Flycatchers** was noted in mid-month and the first of 17 passage **Wood Warblers** recorded in spring was seen at Worthing on the 17th. Long-staying winter visitors included a very late **Snow Bunting** at the Crumbles on the 16th, a **Long-tailed Duck** at this locality up to the 20th and 13 **Fieldfares** at Pondtail Shaw, also on this date. The month closed with 24 **Arctic Skuas**, a **Roseate Tern** and an exceptional 6 **Great Northern Divers** off Worthing, 51 **Little Gulls** at Seaford and 16 **Manx Shearwaters** at Brighton Marina, all on the 30th.

May began with heavy rain and thunderstorms as a low moved slowly north-east across the country. This was followed by the development of an area of high pressure over southern England on the 6th. Associated with this were very warm winds from the south and some sand from Africa which was deposited during humid stormy weather on the night of the 7-8th. The high then moved north allowing low pressure to dominate the weather over western Europe with dull quiet weather in Sussex up to the 11th. A low continued to pump warm humid winds from the east into southern districts and thunderstorms were widespread in northern France. A cold front moved south on the 18th causing temperatures to plummet as a northerly airstream established itself. The winds then backed to the east allowing temperatures to gradually recover. The remainder of the month from the 22nd was unsettled with a low bringing rain to the county on the 29-30th.

The large movement of **skuas** recorded on the 30th April continued the following day with maxima of 44 **Arctics** at Selsey Bill and 38 **Pomarine**s at Seaford. Heavy passage of other species included 3269 '**Commie**' **Terns** at Worthing and a further 31 **Little Gulls** at Seaford. The peak movement of **Black Terns** occurred on the 7th when there were 44 E at this site. Excitement was not confined to sea-watching and the period from the 5th to the 16th produced an impressive selection of rarities, mainly overshoots associated with the warm southerly winds at this time. A male **Black-eared Wheatear** just inside the county boundary at Bewl Water on the 5th was only the second for Sussex but, as is typical with this species, it was not seen again. A **Red Kite** was recorded at Kingley Vale on this date and a ring-tail **Montagu's Harrier** at Pilsey Island the following day. **Ospreys** appeared in good numbers with a total of 6 reported between the 5th and the 17th. An influx of **Little Egrets** produced 2 in the Lower Cuckmere Valley from the 6th to the 9th and further singles at Waltham Brooks and Pevensey Bridge Level on the 7th and 8th respectively. An adult **Night Heron** at Woods Mill on the 6th was no doubt associated with this arrival. Thundery rain and south-east winds on the night of the 7-8th led to the discovery of more scarce species the following day, most notably a **Purple Heron** at Combe Haven, a male **Cirl Bunting** at Selsey Bill, 2 **Spoonbills** at Rye Harbour and 2 **Temminck's Stints** and a **Broad-billed Sandpiper** at Pevensey Bridge Level, the latter the first for the county since 1948 (though a reported adult at Rye Harbour in June 1982 has never been submitted). The run of rarities continued with an elusive singing male **Subalpine Warbler** at Beachy Head for 5 days from the 9th and a **Bluethroat** at Icklesham on the 12th. A **Black Kite** was recorded over Pevensey Levels on the 14th and there was also a **Temminck's Stint** at Waltham Brooks and a **Tawny Pipit** at Icklesham on this date. A **Kenish Plover** at Pilsey Island from the 15th to the 19th and another **Little Egret** at Rye Harbour for 3 days from the 16th completed this exciting period. The change to cooler weather with northerly winds on the 18th largely halted migration until the 26th when there was a **Bluethroat** at Icklesham.

May closed with a **Woodchat Shrike** at Cuckmere Haven on the 27th, a **Hoopoe** at Hope Gap on the 28th and a **Whiskered Tern** on the Ternery Pool at Rye Harbour on the 28-29th.

Early June was unsettled with low pressure over Britain and variable winds including a spell of northerlies. A high then developed to the north-west with winds off the North Sea giving rise to the coldest June day for 20 years on the 9th. High pressure continued to dominate the weather for the next two weeks but on the 26th the high drifted south-west, allowing low pressure over Europe to spread across Britain, bringing sunny but humid weather. A day of rain on the 28th followed a period with less than 10% of the normal rainfall for the month.

A **White Stork** was reported at Ford on the 8th but the remainder of June was generally quiet. An unseasonal **Black-throated Diver** was present at Northpoint GP from the 11th to the 17th but even more unusual was a **Red-necked Grebe** at Church Norton on the 19th, the first county record for the month. A **Puffin** was seen off Brighton on the 7th and a **Red Kite** at Blackcap and a **Red-backed Shrike** at Hamsey on the 16th. Up to 2 **Roseate Terns** were present at Rye Harbour from the 24th to the 27th and a small influx of 25 **Crossbills** included 16 at Falmer on the 24th. The usual scattering of returning waders from mid-month included a **Curlew Sandpiper** at Pevensey Bridge Level from the 13th to the 15th and 2 at Church Norton on the 19th.

Breeding birds enjoyed mixed fortunes, although the apparent increase in some species, for example **Redstart**, could perhaps be attributed to greater fieldwork activity associated with the BTO New Atlas of Breeding Birds. **Sand Martins** showed a welcome upsurge in numbers at some of their colonies and equally pleasing was the presence of 4 pairs of **Woodlarks** and a further 5 singing males in West Sussex. The **Common Terns** at Chichester GP and Rye Harbour again did well but this was offset by the poor fledging success of **Little Terns** at the latter site and the loss of **Sandwich Tern** as a breeding species. Four pairs of **Bearded Tits** bred at one site. Singing male **Cetti's Warblers** were present at two localities in May but again there was no evidence of nesting by this species, which was last proved to breed in Sussex as long ago as 1975. Cliff-nesting seabirds received scant attention and counts of **Fulmars**, **Cormorants**, **Herring Gulls** and **Kittiwakes** would, therefore, be welcome in future years.

July was generally cool and wet and was the poorest for 40 years. The month began with showery weather associated with the deepest low pressure area in southern England since 1956. As southern Europe sweltered, Britain and the near Continent continued under cloudy skies with some rain, including a particularly heavy downpour from an occluded front over the county on the night of the 16th.

The birds, like the weather, were decidedly dull. A total of 4 different **Roseate Terns** were recorded at Rye Harbour during the month while returning waders included 5 **Wood Sandpipers** at Weir Wood Reservoir on the 12th and 9 **Little Ringed Plovers** at Pett Level on the 30th but surprisingly no **Little Stints** and only 4 **Curlew Sandpipers**. A **Velvet Scoter** was reported at Church Norton on the 12th, an unusual date, and the regular **Glaucous Gull** returned to Selsey on the 28th for its seventh consecutive winter. Two **Wood Warblers** at Beachy Head on the 24th, a singing male **Serin** at Hollingbury on the 28th and an early returning **Osprey** at Weir Wood Reservoir (where a **Goshawk** had been logged on the 13th) completed a most uneventful month.

Following an unsettled start to August, temperatures reached 29°C in parts of the south on the 7th as a high moved eastwards across England. A change to westerly winds on the 9th produced some rain and this was followed by a spell of humid weather. A cold front brought heavy rain from the west on the 18th

followed by a low over northern districts with strong winds and heavy rain circulating round it. As winds over Sussex backed north-west on the 21st the midday temperature reached only 15°C. A succession of fronts on a westerly airstream continued until the end of the month.

A **Bee-eater** was recorded at Beachy Head and a **Melodious Warbler** at Rye Harbour on the 1st but the remainder of the month was generally dull, with few large movements of common birds reported and just a handful of less common species. A **Merlin** at Rye Harbour on the 7th was the earliest autumn record for the county and this was followed by 2 **Ospreys** at Darwell Reservoir on the 8th and a **Montagu's Harrier** at Pevensey Bridge Level on the 11th. A **Lesser Yellowlegs** was seen at Pett Level on the 14th and a **Gull-billed Tern** there the following day. Up to 5 **Dottrel** were present at Balsdean from the 22nd to the 27th and a **Red-backed Shrike** at Littlehampton West Beach on the former date. A second influx of 51 **Crossbills** included a total of 48 recorded passing over Beachy Head during the month. August closed with a **Tawny Pipit** over Combe Haven on the 29th and a very obliging **Spotted Crane** at Sidlesham Ferry from the 30th to 11th September.

September began unsettled with the first gale of the autumn on the 1st. The winds slackened on the 3rd and on the 6th the remains of tropical storm Ernesto brought very warm air northwards from Iberia. Temperatures reached a humid 26°C during light south-east winds on the 7th. A weak cold front then turned the winds to a light northerly ahead of a ridge of high pressure. Temperatures recovered on the 9-10th only to fall again with the passage of another weak cold front on the 11th. A high formed to the west of Ireland and light north to north-west winds persisted until the 18th. This cool but dry weather eventually gave way to gales as two vigorous lows crossed the country on the 23rd giving heavy overnight rain. The winds then backed north-westerly with showery conditions and colder nights until a high formed over Britain on the 30th and a tropical storm to the west of Ireland moved north towards Iceland.

The gale early in the month produced a scattering of **Grey Phalaropes** in the west of the county with 2 at Littlehampton, 2 at Pilsley Island and a different bird on Thorney Deeps. A **Honey Buzzard** at Hollingbury on the 3rd was the only record of this species in the county during the year. An **Ortolan Bunting** flew over Combe Haven on the 5th while on the 6-7th there was a small influx of **Tawny Pipits** comprising 2 at Pilsley Island and singles at Littlehampton West Beach and over Combe Haven. The first of 9 **Wrynecks** recorded in the county during the autumn were seen at Belle Tout and in the Lower Cuckmere Valley on the 10th when there was also a **Spotted Crane** at Pett Level. A **White Stork** over Westhampnett on this date was probably that seen over Burpham the following day. A **Richard's Pipit** was reported at Combe Haven on the 12th. **Curlew Sandpipers** were particularly numerous in the first half of the month with peak counts of 20 at Sidlesham Ferry, 16 at Rye Harbour and 15 at Pilsley Island. An **American Golden Plover** on stubble fields at Church Norton from the 14th to the 17th was a first for Sussex, although greater awareness of its field characters may lead to the finding of further individuals in autumn flocks of Golden Plover. A **Red-backed Shrike** nearby during the same period added to the attraction. A **Marsh Harrier** well inland at Warnham Mill Pond on the 17th was unusual. The first of three large movements of **Siskins** recorded in the county during the autumn occurred between the 15th and the 22nd with some 2250 birds reported. A large fall of common migrants was noted on the 18th and associated with this arrival was an early **Yellow-browed Warbler** at Birling Gap, a **Coal Tit** showing the characteristics of the Continental race at Newmarket Hill the following day, and

Woodlarks at Beachy Head and Littlehampton West Beach on the 19th and the 21st respectively. A male **Montagu's Harrier** was also present on the 18th at Belle Tout. Another **Tawny Pipit** was recorded at Beachy Head on the 22nd and 2 **Sooty Shearwaters** off Brighton Marina on the 28th. The month closed with another influx of **Siskins** from the 28th to the 3rd October and an exceptional record of 5 **Great Skuas** over Bewl Water on the 30th.

The first 3 days of October were very pleasant with daytime temperatures as high as 18°C and little wind but cold nights. Another tropical storm moved north to Iceland and the high over this country moved away north-east allowing unsettled weather to spread across England. Gale-force winds were recorded from the 5th to the 7th and heavy rain on the 8-9th. A ridge of high pressure gave some respite on the 10th before another low moved towards Britain on the 11th bringing flooding to parts of the south-west as it became stationary. A high over Scandinavia spread south-west on the 12th introducing easterly winds. This was followed by a mainly dull and overcast spell with mist at times and light winds from the east and then south-east. The high gradually pulled back towards Scandinavia and a cold front moved north across the Midlands and northern England. A high over the near Continent maintained the quiet mild weather over southern districts for several days and light southerly winds persisted as pressure fell to the west. There was heavy overnight rain on the 24th but it remained warm until the 26th when a change to easterlies brought night frosts to the end of the month.

The first of 6 **Yellow-browed Warblers** recorded during the month was seen at Rye Harbour on the 1st and a **Stone Curlew** at Glynne Gap on the 2nd. A **Pectoral Sandpiper** found at Arlington Reservoir on this date remained until the following day when there was an **Arctic Skua** at Darwell Reservoir. The gales from the 5th to the 7th blew a number of seabirds close inshore including **Storm Petrel**, **Pomarine Skua** and **Sabine's Gull** at Galley Hill, **Grey Phalarope** at Langney Point and probably the same **Sabine's Gull** at Southwick, all on the 9th. Further **Grey Phalaropes** were reported from Rye Harbour on the 7th and 10th and at Thorney Island on the 14th. Dull and overcast conditions with light south-east winds on the 12th produced a large fall of **Ring Ouzels** with maxima on this day of 46 at Hollingbury and 20 at Beachy Head and a further 25 elsewhere. The total of 425 recorded during the month was a county record and included 75 at the latter locality on the 17th. **Firecrests** also appeared in good numbers with a total of 39 reported between the 12th and 24th, mainly from the coast. A **Dartford Warbler** at Thorney Island on the 13th was the first of 6 recorded in the county during October. The fifth **Penduline Tit** in Sussex in just over a year was trapped at Pett Level on the 15th, while on the 16th a **Spotted Crane** was heard calling at Amberley. A third influx of about 1000 **Siskins** was noted between the 15th and the 22nd while on the 18th there was a **Great Grey Shrike** at Belle Tout. A **Glossy Ibis** found near Lewes on the 24th was seen again at Cooden Beach on the 27th when there were 2 **Little Auks** off Brighton. **Goshawks** over Pevensy Bridge Level on the 26th and at Newmarket Hill two days later were possibly the same bird. A **Red-backed Shrike** appeared at Littlehampton golf course on the 28th and there were further **Great Grey Shrikes** at Sidlesham Ferry on this date and at Birling Gap the following day. The **Black Brant** at Thorney Island reappeared on the 27th and there was a **Whooper Swan** over Newhaven Tidemills on the 29th.

High pressure dominated the first few days of November with night frosts and fog. A low formed to the west on the 8th, increasing wind speeds and allowing milder weather to spread back south. Rainfall remained below average with some very low inland water levels. High pressure again dominated from the 12th to the

16th with fog and frost widespread. Winds turned northerly behind a cold front on the 17th and as they strengthened, conditions turned wintry. A small low formed to the north-west and this crossed the country on the 18th bringing the first heavy snowfalls of the winter to northern England. Some snow showers fell as far south as Sussex. Winds then slackened and a large high formed over the British Isles with frosts and daytime temperatures of only 5-6°C to the 27th. The month closed with frontal systems moving south-east and bringing strong westerly winds and rain.

Late-staying summer migrants included **Garganey** at Pett Pools, **Whinchat** at Beachy Head and **Redstarts** at this locality and at Selsey Bill, all on the 5th. A **Red Kite** passed over Pett Level on this date and was seen later at Rye Harbour and there was a **Lapland Bunting** over Hooe Level on the 6th. The **Glossy Ibis** recorded at Cooden Beach in October was relocated at Hooe Level where it appeared each evening up to the 11th, flying in to roost just before dusk. Two **Whooper Swans** were present at Jury's Gap on the 6th and a **Pallas's Warbler** at Church Norton on the 9th. A late **Lesser Whitethroat** was recorded at this locality on the 13th and also 4 **Snow Buntings**. A **Great Grey Shrike** in Ashdown Forest from the 15th remained into 1989 while on the 21st there were 2 **Smew** at Weir Wood Reservoir. **White-fronted Geese** appeared in small flocks during the month and there were also 15 **Pinkfeet** over Hooe Level on the 26th. Up to 3 **Little Auks** close inshore off Selsey Bill from the 26th into December, a **Red Kite** at Firle Beacon on the 27th and a **Waxwing** seen briefly at Pagham on this date rounded off the month.

The last of the frontal rain cleared away to the Continent on the 1st December, giving way to easterly winds on the southern side of a high over Scandinavia. Frontal rain and strong winds returned on the 3rd-4th before pressure rebuilt to the south-west. The cold north-west winds slackened and backed west on the 7th. Mild weather was maintained until the end of the year with only the occasional front spreading some rain on the mainly south-westerly winds. High pressure to the south maintained dry quiet weather in Sussex throughout the Christmas holiday period which was one of the mildest on record.

Two **Great Northern Divers** were seen off Church Norton on the 7th where numbers of **Slavonian Grebes** built up to a high of 46 on the 13th. Another **Little Auk** was recorded at Galley Hill on the 8th and **Long-tailed Ducks** appeared in good numbers with a total of 20 reported during the month following 25 in November. The hoped-for invasion of **Waxwings** did not materialise although 2 were seen at Selmeston on the 10th and the 18th and 2 in the Pett/Winchelsea area on 3 dates between the 8th and the 24th. A flock of 22 **Scaup** on the Crumbles from the 18th was noteworthy as were **Lapland Buntings** at Pett Level, Hooe Level and Cuckmere Haven. **Short-eared Owls** appeared in good numbers with up to 7 on Pevensy Levels and at least 10 at Pulborough Brooks where a male **Hen Harrier** roosted throughout the month. The Christmas period was particularly quiet except for a **Bean Goose** present with Canada Geese at Arundel WFT and later at Waltham Brooks. Large numbers of oiled **auks** were washed close inshore in the latter part of the month when there was an influx of **Red-throated Divers** including 135 W off Pett on the 27th. 1988 closed with a **Little Stint** in Chichester Harbour on the 27th and the 30th and a **Smew** at Barcombe Reservoir on the 31st.

Acknowledgement

Grateful thanks are again due to Roy Sanderson who provided the detailed weather summary on which this review is based. PJ.

CLASSIFIED RECORDS FOR 1988

This list covers all species in Categories A and C of the British Ornithologists' Union check list. Records of birds ringed have not been cross-referenced to the bird-ringing summary. The breeding count table (page 52) should be read in conjunction with the summaries for the individual species in the following list. Records of national rarities have only been included if the Society has been notified of their acceptance by *British Birds*, at the time of going to press. Observers are reminded that all records of unusual species (see list on inside back cover) are considered by the Records Committee and only those fully authenticated will be published.

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

Although House Sparrow (*Passer domesticus*) occurred commonly in Sussex in 1988, details have not been incorporated into the List.

SWANS, GESE, DUCKS and WADERS. Readers are reminded that the tables presented for all the main species have been compiled from the monthly 'Wildfowl Counts' for the Wildfowl Trust and the 'Birds of Estuaries Enquiry' for the British Trust for Ornithology. The counts were made once per month and therefore the tables do not show the peak monthly figure but a more meaningful coordinated count. The 'Birds of Estuaries Enquiry' counts were made on 9 Jan., 20 Feb., 19 Mar., 10 Sept., 15 Oct., 12 Nov. and 10 Dec. 1988 and 7 Jan., 11 Feb. and 11 Mar. 1989. The 'Wildfowl Counts' were made on 17 Jan., 21 Feb., 13 Mar., 18 Sept., 16 Oct., 13 Nov. and 18 Dec. 1988 and 15 Jan., 12 Feb. and 12 Mar. 1989.

1. **RED-THROATED DIVER (*Gavia stellata*):**—An unexceptional year apart from an obvious influx into the county in late Dec. The approximate monthly totals including sea passage were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
32	15	20	49	10	—	—	—	1	1	25	272

Records for Jan.-Feb. were widely scattered and included up to 11 in Rye Bay and totals for this period of 13 E and 4 W at Worthing. In Mar. all records were of singles apart from 2 W at Climping on 14th and totals of 8 E and 3 W at Worthing during the month. In Apr. May most records were of birds passing up-channel at the main sea-watching localities, the only exceptions being 3 found dead at Rye Hbr in Apr. and 1 in Chichester Hbr on 1 May. The last record for the spring was of 3 E at Worthing on 23 May.

The first returning bird was at Rye Hbr on 15 Sept. but there were no further records until 29 Oct. when there was 1 W at Worthing. On 26 Nov. there were 17 in Rye Bay but elsewhere only singles were noted during the month. In Dec. the main concentrations reported were 13 off Worthing and 9 E at St Leonards on 24th, 135 W at Pett and 2 E and 16 W off Worthing on 27th, 10 off Church Norton on 28th and still 10 offshore at Worthing on 31st where movements during the month totalled 14 E and 41 W.

The only inland record was of 1 at Chichester GP on 29 Dec.
See also Diver sp.

2. **BLACK-THROATED DIVER (*G. arctica*):**—An unexceptional year. The approximate monthly totals, including sea passage, were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2	1	5	31	19	1	—	—	1	1	3	1

Records for Jan.-Mar. were from Selsey Bill (3), Worthing (3) and Pett (2), none being seen on more than one date. In Apr.-May a total of 49 E were recorded at the main sea-watching localities. The June record was of a single bird seen intermittently at Northpoint GP, Rye between 11-17th (BJY *et al.*).

In the latter part of the year there was 1 at Church Norton on 30 Oct., 1 off Langney Point on 3 Nov., 1 W at Worthing on 20th and another off Langney Point on 28th. In Dec. records were from Selsey Bill (4), Worthing (6) and Brighton Marina (2).
See also Diver sp.

3. **GREAT NORTHERN DIVER (*G. immer*):**—Another good year with most records being of birds on spring passage.

In the first winter period there were 2 off Church Norton on 7 Jan. (TJE), one remaining until 10th, and 1 at Bracklesham Bay on 20-21 Feb. (BDJ, PJ *et al.*). Apr. records were of 2 E at Selsey Bill on 10th (BJ, CRJ *et al.*) and singles E there on 14th (mo) and 30th (BJ, CMJ *et al.*). The latter bird was probably one of the 6 that passed Worthing that day (PMB, BAEM, DIS *et al.*). The only acceptable May record was of 1 E at the latter locality on 22nd (RJS). In Dec. there were 2 off Church Norton on 7th (TJE).
See also Diver sp.

DIVER SPECIES (*Gavia sp.*):—Totals of birds recorded passing up-channel in spring at the main sea-watching localities were as follows:

	Coverage	<i>G. stellata</i>	<i>G. arctica</i>	<i>G. immer</i>	<i>G. species*</i>
Selsey Bill	208 hrs	8	19	4	119
Worthing	345 hrs	45	8	7	250
Brighton Marina	?	2	6	—	39
Seaford	284 hrs	?	—	—	306
Beachy Head	?	10	28	—	192

Analysis of the above records reveals the following monthly distribution:

	March	April	May	Total
<i>G. stellata</i>	8	35	18	53
<i>G. arctica</i>	1	31	10	42
<i>G. immer</i>	—	9	1	10
<i>G. species*</i>	85	322	106	513

*includes all specifically identified birds.

In Dec. there were totals of 10 E and 33 W at Selsey Bill.

6. **LITTLE GREBE (*Tachybaptus ruficollis*):**—Monthly maxima at the principal wintering sites were:

	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Chichester Hbr	15	27	6	—	—	24	29
Lower Cuckmere	17	11	12	11	25	21	29
Pagham Hbr	2	4	5	6	11	25	28
Rye Hbr	5	7	9	13	6	15	12

Elsewhere in Jan. and Feb. only 8 at the coast, 3 at inland waters, 6 on the levels and 9 on the tidal reaches of the Rivers Arun and Adur. In the spring last seen at the Crumbles GP on 4 Apr. In the Lower Cuckmere 6 were still present on 1 Apr. and the last left on 2 May. One was off Widewater on 26 Apr.

A welcome increase in breeding season records. At Rye 6 pairs reared 7 young; first nesting seen 5 Mar. but only one early brood survived. Second broods seen from 30 Jul. Elsewhere 26 pairs were reported from 14 sites and pairs were suspected at 2 others. Of these, 20 pairs reared 35 young. No detailed information was received for Chichester GP.

Post-breeding dispersal first noted in the Lower Cuckmere on 28 Aug. where numbers built up rather early to 5 on 10 Sept. In Nov. and Dec. up to 15 were reported from Northpoint GP, Rye and in addition to those tabulated above only 2 elsewhere at the coast, 7 inland, 5 on the levels and 16 on the tidal rivers.

7. **GREAT CRESTED GREBE (*Podiceps cristatus*):**—Monthly maxima at the principal wintering sites were:

	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Weir Wood Res.	40	30	40	53	83	92	78
Bewl Water	58	47	50	62	40	40	40
Darwell Res.	18	19	20	45	42	44	51
Chichester Hbr	16	30	6	16	17	29	26
Chichester GP	7	13	6	23	21	16	12
Ardingly Res.	11	9	19	21	17	18	22
Pagham Hbr	3	3	3	42	29	40	63
Arlington Res.	4	11	1	7	7	14	14
Barcombe Res.	5	4	4	2	3	3	4

Few were reported from the coast in the early months. There were 10 off Widewater on 10 Apr. and 11 off Pilsey on 18 Apr. During the spring dispersal, one was reported from Nyewood near Rogate on 8 Apr.

Breeding season records were received for 89 pairs at 23 sites. In addition 4-5 were reported off Church Norton from 22 May to 19 Jun., 2-3 off Pilsey from 5-25 Jun. and one on Thorney Deepes from 27 Jun. to 18 Jul. The number at Pilsey increased to 7 on 7 Jul. Breeding success was poor with many pairs failing completely and 53 successful pairs raising only 39 young. Up to 54 birds were at Weir Wood Res. on 25 Jun.; 12 pairs were known to have nested but all failed due to rapidly falling water levels. At Darwell Res. there were 10-12 pairs of which 3-4 pairs raised 6 young; 5 pairs at Rye raised 5 young but 4 pairs at Petworth Park all failed. In contrast 8 pairs at Chichester GP reared 12 young. A pair at Buchan Park, Crawley on 22 Jun. and a juvenile in the Lower Cuckmere on 11 Jun. were unusual records.

At Church Norton 13 were present on 28 Aug. and 14 were recorded there on 28 Sept. Thereafter numbers increased to 45 on 5 Nov. Elsewhere 150-160 were at sea off Pett on 17 Nov. and smaller numbers were regular off Rye until the end of the year.

8. **RED-NECKED GREBE (*P. grisegena*):**—The approximate monthly totals were as follows:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	3	2	2	1	2	1	—	—	3	3	5	4

The bird recorded at Bewl Water in Dec. 1987 (SxBR 40:13) was last seen on 18 Mar. Other records for the early months were of singles at Church Norton on 3 and 16 Jan. (BJ, CMJ, RBW), in Chichester Hbr on 24 Jan. (TCS) and 6-7 Feb. (CBC, KWM) and off Hove on 1 Mar. (SRA). In Apr. there was 1 at Seaford on 14-15th, 18th and 30th (AW) and this was possibly the same individual as that off Birling Gap on 8 May (mo) and at Seaford again on 12 and 14 May (AW). The only other May record was of 1 E at Worthing on 8th (RJS). A single bird at Church Norton on 19 June (PBr, BPu, RP) was the first county record for the month.

In autumn there was 1 at Bewl Water on 11 Sept. (MNB, PMB) followed closely by others at Pett Pools on 12th (JABG) and flying W at Worthing on 23rd (JAN). Oct. records were of single birds at Selsey Bill on 11th (BJ, CMJ), Widewater, Lancing on 27th and 31st (SRA) and off Church Norton on the latter date (BJ, CMJ, DS). This bird, which was also seen at Selsey Bill on several occasions, remained until at least 19 Nov. although 2-3 were present on 27 Nov. (GR) and 1 on 22 Dec. (TJE). Other records for the remainder of the year were of 2 in Chichester Hbr on 26 Nov. (CBC, MAC) and singles at Arlington Res. from 15 Nov. to 3 Dec. (mo), at Rye Hbr on 8 Dec. (per BJJ) and at Weir Wood Res. on 12 Dec. (NAD).

9. **SLAVONIAN GREBE (*P. auritus*):**—A very good year, the majority of the records coming from the west of the county, particularly Church Norton. The approximate monthly totals were as follows:

	Jan.	Feb.	Mar.	Apr.	Sept.	Oct.	Nov.	Dec.
	11	39	13	17	2	13	45	58

Recorded at only 2 sites in Jan. with maxima of 5 off Church Norton on 10th and 6 in Chichester Hbr on 26th. Records in Feb. were more widely spread including singles at Brooklands on 6th and at Crumbles GP from 14th to 6 Mar. Numbers in Chichester Hbr

rose to 10 on 6 Feb. and at Church Norton to 25 on 20 Feb. In Mar. there was 1 at Rye Hbr from 8-18th and 1 W and 2 offshore at Worthing on 13th. The last recorded at Church Norton were 4 on 7 Apr. Elsewhere, passage birds included 2 in summer plumage off Cuckmere Haven from 7-9 Apr., 1 off Birling Gap on 16-17th, 8 off Seaford on 16th and lastly one there on 20th.

In Sept. there were singles at Church Norton on 4th, an early date, and at Rye Hbr from 17-19th. Records in Oct. included another at the latter site on 29th and 1 at Widewater, Lancing on 30th. In Nov. there was 1 at Northpoint GP on 12th and 1 off Saltdan on 13th. A single at Rye Hbr on 26th may have been the bird seen there earlier. Numbers at Church Norton rose steadily from 21 on 11th to 39 on 27th and peaked at 46 on 13 Dec. (TJE). Also in Dec. there were singles at Widewater on 13th, Rye Hbr on 20th and 2 at Arlington Res. on 27th. At Worthing 2 were recorded on 27th, 1 on 28th and an oiled bird on 30th. 4 remained in Chichester Hbr to the end of the year.

10. **BLACK-NECKED GREBE (*P. nigricollis*):**—An average showing comprising mostly passage birds, monthly totals being:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	—	1	—	—	5	—	1	1	4	—	—	—

The only record for the first winter period was of 1 in Chichester Hbr on 11 Feb. (CBC). In Apr. there were 3 off Worthing on 2nd (DIS), 1 off Seaford on 18th (AW) and a summer-plumaged bird off Lancing on 24th (RJJF).

In autumn one at Rye Hbr between 16 July and 15 Aug. may have been that present in the area on 6 dates in Sept. (BJJ *et al.*). Elsewhere in Sept. there was 1 at Bewl Water on 11th (MNB, PMB) and 2 at Crumbles GP on 18th (BDJ, PJ). One at Rye Hbr on 31 Oct. and 1 in Chichester Hbr on 7 Dec. (CBC) were the only records for the remainder of the year.

12. **FULMAR (*Fulmarus glacialis*):**—Observations at the main sea-watching localities were as follows:

Direction of movement	Jan.-Feb.		Mar.-May		June-July		Aug.-Oct.		Nov.-Dec.	
	E	W	E	W	E	W	E	W	E	W
Selsey Bill	—	2	48	162	—	—	—	—	—	—
Worthing	4	2	330	388	11	35	31	71	—	—

The peak movements occurred at Worthing where there were 6 E, 56 W on 22 Apr. and 82 E, 40 W on 1-2 May.

Regrettably no reports were received of systematic counts made during the breeding season but 3 young birds were seen at Rock-a-Nore, Hastings in Aug. Return to the breeding ledges was noted from 26 Nov.

17. **SOOTY SHEARWATER (*Puffinus griseus*):**—A return to normal following the exceptional numbers in 1987 with 2 W at Brighton Marina on 27 Sept. (NAGL) the only record.

18. **MANX SHEARWATER (*P. puffinus*):**—1986.—A flock of 15 off Brighton on 22 June (RG, NJT).

1988.—A total of 51 was reported in spring between 23 Apr. and 3 June although some duplication is likely. In Apr. there was 1 W at Worthing on 23rd, 1 E at Seaford on 30th and 16 E at Brighton Marina on the same date. On 1 May 2 passed E at Lancing, 1 E at Seaford and 2 E at Beachy Head. Passage continued the following day with 1 E and 1 W at Selsey Bill, 1 W at Worthing and 4 E at Beachy Head. On 23 May there were 12 E at Seaford. During the period 30 May-3 June there were 1 E and 4 W at Worthing and also 4 E at Galley Hill, Bexhill on 30th.

July records were of 5 E at Seaford and 5 W at Worthing on 3rd, 7 W at the latter locality on 4th, 2 E at Seaford and 1 W at Selsey Bill on 10th, 2 W at Brighton Marina on

23rd and 4 E at Worthing on 29th. In Aug. there was 1 W at Worthing on 27th while in Sept. there were 5 W off Brighton Marina on 23rd. The last for the year were 2 W at Worthing on 26 Oct.

22. **STORM PETREL** (*Hydrobates pelagicus*):—One found dead at Beachy Head on 4 Apr. (CWM) was only the 2nd county record for the month since 1946.

In Oct. there was 1 W at Galley Hill, Bexhill on 9th (KMJ) and one found dead under power lines at Birling Gap on 16th (DC, JFC). These represent the 8-10th records for Sussex since 1960.

25. **GANNET** (*Sula bassana*):—Observations at the main sea-watching localities were as follows:

Direction of movement	Jan-Feb.		Mar-May		June-July		Aug-Oct.		Nov-Dec.	
	E	W	E	W	E	W	E	W	E	W
Selsey Bill	1	—	110	60	2	—	30	12	—	5
Worthing	2	2	258	264	74	191	114	249	2	13
Brighton Marina	—	—	57	8	13	—	—	—	—	—
Seaford	1	—	505	88	25	—	—	—	—	—
Beachy Head	—	—	125	5	—	—	—	—	—	—

The peak spring movements occurred on 6 Mar. when there were 111 E at Seaford and on 1-2 May when there were 82 E, 3 W at this locality and 75 E, 28 W at Worthing. On 29 Apr. there were 60 E, 8 W at Selsey Bill.

In the latter part of the year there were 73 W at Worthing on 20-21 Aug. and 88 W at St Leonards on the late date of 4 Dec.

On 30 Apr. an adult was observed resting on Pett Pools where it was harassed by gulls.

26. **CORMORANT** (*Phalacrocorax carbo*):—Monthly maxima at the known nocturnal roosting sites were as follows:

	Jan.	Feb.	Mar.	Apr.	Sept.	Oct.	Nov.	Dec.
Adur Levels	30	—	32	—	26	—	57	74
Lewes Brooks	—	25	—	—	—	14	—	23
Pevensey Levels	10	7	—	—	—	11	12	4

In addition there were reports of roosting flights at dusk of up to 137 birds at Arundel and 46 at Greattham Bridge. Counts for the South Stoke roost and for any other sites in the Arun Valley would be welcome.

The maximum monthly counts at inland waters were as follows:

	Jan.	Feb.	Mar.	Apr.	Sept.	Oct.	Nov.	Dec.
Ardingly Res.	—	2	—	—	—	—	—	—
Arlington Res.	—	4	—	—	—	—	—	—
Barcombe Res.	—	1	17	4	—	—	7	15
Burton MP	—	—	—	—	1	2	—	—
Chichester GP	—	—	41	—	44	3	—	—
Darwell	4	14	4	—	1	—	10	—
Gravetye Lakes	—	—	—	—	3	—	—	—
Knepp Lake	—	—	1	—	—	—	—	—
Shillingee Lake	—	—	—	—	—	—	—	—
Streede Lake	1	—	—	—	—	—	1	3
Warnham MP	1	3	2	1	—	—	—	—
Weir Wood Res.	9	14	6	5	6	17	14	54

On the coast, up to 106 were seen at Chichester Hbr, 22 at Newhaven, 53 at Pagham Hbr, 53 at Rye Hbr and 24 at Southwick.

There were again no counts for the breeding colony at Fairlight.

27. **SHAG** (*P. aristotelis*):—A very good year in contrast to 1986 and 1987. The approximate monthly totals were as follows, although some duplication is likely between adjacent localities:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
4	11	49	25	18	2	4	2	4	12	5	6

As usual most records were for Brighton Marina including maxima of 7 in Mar. and 15 in Apr. Other notable concentrations were 7 at Newhaven Hbr on 5 Mar. and 15 at Shoreham Hbr on 16 Mar. Inland, there was a single at the Pells, Lewes on 4 Jan. and 7 Feb. (AW, TJW), 2 at Bewl Water from 20 Feb. to 11 Mar. (PCB), 5 at Weir Wood Res. on 7 Mar. (NAD, BMM, DCM), 2 (possibly the Bewl Water birds) at Lindfield Pond from 15 Mar. to at least 6 July (SBR *et al.*), 1 N over Combe Haven on 18 Apr. (KMJ) and 1 at Bewl Water on 27 Nov. (PCB).

30. **BITTERN** (*Botaurus stellaris*):—A poor year with only two records, one at Pondlye on 16 Jan. (JWK) and the other at Combe Haven from 9-24 Apr. (KMJ).

32. **LITTLE BITTERN** (*Ixobrychus minutus*):—A male picked up exhausted on the central reservation of the A259 near Hove Lagoon on 30 Mar. (PJ) was released, later that day, at Oreham Common where it remained to the delight of many until 12 Apr. (BDJ, PJ, DS *et al.*). This record, which has been accepted by *British Birds*, is the 29th county record, the third in 3 years and only the second to be seen in March. Its brief period in captivity did nothing to deter many from travelling considerable distances to see it and the only regrettable behaviour noted was by impatient photographers. (See report on pages 88-89.)

33. **NIGHT HERON** (*Nycticorax nycticorax*):—An adult at Woods Mill on 6 May (JHa) is the 16th county record and has been accepted by *British Birds*.

37. **LITTLE EGRET** (*Egretta garzetta*):—In May two were present at Cuckmere Haven from 6-9th (MKA, MJA, DIS *et al.*) while on 7-8th one was seen at Waltham Brooks (RoK, DIS) and another was found on Pevensey Bridge Level on 8th (BDJ, PJ *et al.*). The final record in an extraordinary period came from Rye Hbr on 16-18th (BJY). These records have been accepted by *British Birds* and bring the county total to 29, of which 15 have been since 1981.



39. **HERON** (*Ardea cinerea*):—All known heronries were counted and nests certainly and probably occupied totalled 208 (204 in 1987). The counts were as follows: Fishbourne 32 (JKC), Paghams 4 (PFBu), Yapton 2 (ReK), Parham 19 (AD), Henfield 19 (ABW), Fittle 34 (ABW), Knepp 15 (AS, IMS), Ardingly 0 (NA), Eridge 18 (MS-H), Glynde 6 (PJJ), Priesthaves 0 (LG), Westham 1 (LG), Warming 2 heronries 9 and 1 (LG), Pevensey 0 (LG), Pett Level 2 (SJRR), Leasam 45 (SJRR), Rye Harbour 0 (BIJ), single nest near East Grinstead (DSD). The Fishbourne herony has doubled but numbers at Parham have dropped. Glynde had a herony from about 1933 to 1970 and this is the first recent record from there.

Out of the breeding season the species was recorded throughout the county in suitable habitat, with maxima of 20 at Cuckmere (Mar.), 28 at Thorney Deep (Sept.) and 32 at Rye (Dec.). A remarkable record was 38 flying west in formation past Beachy Head on 1 Oct.

40. **PURPLE HERON** (*A. purpurea*):—A sub-adult at Combe Haven between 8-13 May (KMJ *et al.*) was the 20th county record during the eighties and the 41st in total. Just over half have been in April or May.

42. **WHITE STORK** (*Ciconia ciconia*):—At least three were recorded during the year, being at Rackham Woods on 22 April (JFL), Ford Station on 8 June (ADW), flying NE over Westhampnett, Chichester on 10 Sept. (TPD) and presumably the same flying SW over Burpham on 11 Sept. (FP, MD-S). The county total moves on to 64, of which 37 have been seen since 1965.

43. **GLOSSY IBIS** (*Plegadis falcinellus*):—One at Lewes on 24 Oct. (RMG) then moved to Cooden Beach on 27th (RJJ). It was relocated on 5 Nov. flying over Hooe Level to roost (RJJ, PJ, TJW *et al.*) where it appeared each evening up to 11th. These records, which are assumed to relate to the same bird, have been accepted by *British Birds*. There are now 5 records for the county in recent times, 4 being since Sept. 1986.

44. **SPOONBILL** (*Platalea leucorodia*):—One was seen at Thorney Deep on 2 Apr. (CBC *et al.*). Between 8-16 May 2 immatures were present at Rye Hbr for much of the time (BIJ *et al.*), being seen briefly at Pett on 8th (CHD). Three represents an average showing in recent years.

46. **MUTE SWAN** (*Cygnus olor*):—In the early months the highest counts reported from the principal localities included 117 between Pulborough and Houghton on 26 Feb., 75 in the Ouse Valley on 6 Feb., 50 in Chichester Hbr on 15 Jan., 45 in the Adur Valley on 17 Jan., 31 on Pevensey Levels on 26 Feb. and 26 in the Lower Cuckmere on 1 Jan. At Scotney GP there were 90 on 6 Mar. and numbers had increased to 122 by 10 Apr. Other herds of non-breeders included 26 at Pett Level on 9 Apr., 36 at Pulborough on 17 Apr. and 16 at Wallers Haven on 21 Apr.

In the breeding season there were 4-6 pairs at Chichester GP on 10 June and 6 pairs bred on Pevensey Levels. Elsewhere 15 pairs are known to have raised 63 young. Late May and June counts of non-breeders (plus failed breeding pairs) were reported from the Adur Valley (62), Pett Level (41) and Lower Cuckmere Valley (36). By 6 Aug. numbers at Dell Quay had increased to 50.

At Rye numbers peaked at 50 in Oct. but dropped to 39 and 31 in Nov. and Dec. respectively. Similarly in the Lower Cuckmere there were 71 on 22 Oct. but numbers had dropped to 43 on 29 Oct. and remained at this level until early Dec. Thereafter numbers fell again to 18 by 28 Dec. Elsewhere counts included 106 at Amberley on 12 Nov., 44 at Thorney on 7 Dec., 30 on both the Adur Levels and Pevensey Levels on 29 Dec. and 15 on Pett Level on 24 Dec.

47. **BEWICK'S SWAN** (*C. columbianus*):—In the Arun Valley the year started with numbers reduced to 63 (including 6 immatures). Four at Knepp on 17 Jan. were probably straying from this herd. By mid Jan. numbers in the valley had increased to 86 and remained at about this level until 26 Feb. The last seen were 36 at Houghton Bridge on 4 Mar. In the Ouse Valley 4-5 (including one immature) were present from early Jan. until 7 Feb. whilst a herd of 24 first reported in the Adur Valley on 25 Jan. remained until 15 Mar. Other late records included 27 E at Widewater on 9 Mar. and 23 at Knepp on 23 Mar.

Later in the year the first seen were 2 in the Cuckmere Valley on 28 Oct. which flew N the following day. Also on 29 Oct. there were 17 W at Rye and one N at Paghams Hbr. Two more arrived at Paghams on 30 Oct. but stayed only 10 minutes. Other arrivals were 2 at Pett Level on 2 Nov. and 14 W over Barcombe Res. on 22 Nov. In the Arun Valley the first seen were 28 (including 5 immatures) on 5 Nov. but numbers had increased to 113 by the end of the month and peaked at 123 on 18 Dec. In the Ouse Valley 2, first seen on 26 Nov., increased to 4 on 10 Dec. and these were still present at the end of the year at which time there were also 2 at Pilsley Island.

48. **WHOOPER SWAN** (*C. cygnus*):—An adult WSW over Newhaven Tidemills on 29 Oct. (EU) and an adult and imm. with Mute Swans at Jury's Gap on 6 Nov. (BDJ, PJ, MK, TJW) were the only records.

49. **BEAN GOOSE** (*Anser fabalis*):—1985:—Ten with White-fronted Geese at Weir Wood Res. on 19 Jan. (CFB).

1988:—Five at Scotney Court GP from 20 Feb. to 1 Mar. (*per* DBO) with 2 still present on 13 and 16 Mar. The latter birds were considered to show the characteristics of the race *rossicus* (MS-H). One at Arundel with Canada Geese from 10-28 Dec. (RJLK *et al.*) was also recorded with Bewick's Swans at Waltham Brooks on 27th (PC, ASD). The possibility that this bird, which was still present in the Arun Valley in early 1989, had escaped from captivity cannot entirely be excluded.

50. **PINK-FOOTED GOOSE** (*A. brachyrhynchus*):—The only records were of 1 W at Littlehampton on 25 Apr. (ACH) and 15 NE over Hooe Level on 26 Nov. (DSh, TJT). See also Escapes and Ferals on page 71.

51. **WHITE-FRONTED GOOSE** (*A. albifrons*):—In the first winter period single birds were recorded at Climping on 20 Jan., Pulborough Brooks on 25 Jan., Pevensey Bridge Level from 7-19 Feb., Rye Hbr on 17 Feb. and Waltham Brooks on 21 Feb. The only Mar. record was of 3 over Worthing on 17th.

A small influx occurred in Nov. with 1 in the Lower Cuckmere Valley on 12th, 22 NW at Bewl Water and 7 E at Rye Hbr on 21st, 20 at Paghams Hbr on 22nd and 17 E there and 3 S at Rye Hbr on 26th. In Dec. there were 14 on Horse Eye Level on 8th and 40 W at Pett Level on 16th while at Rye Hbr there were 27 S on 14th, one on 17th, 17 S on 18th and 6 on 20th.

53. **GREYLAG GOOSE** (*A. anser*):—Monthly maxima of feral birds at the principal localities were:

	Jan.	Feb.	Mar.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Arun Valley	36	26	22	35	35	27	43	22	22
Weir Wood Res.	11	—	—	19	19	6	75	99	24
Pett Level/Rye Hbr	13	7	7	—	—	—	—	—	—
Glynde Levels	8	14	14	—	—	—	23	—	—
Bewl Water	1	1	6	—	—	—	—	—	—

A flock of 99 at Weir Wood on 4 Nov. was the largest flock of feral stock ever seen in the county. Numbers at Bewl Water remained surprisingly low but the species is now an irregular visitor at Glynde Levels.

In the spring there were 9 on Pevensy Levels on 24 Mar., 3-4 in the Lower Cuckmere in Apr. and 2 at Moundfield. In the Arun Valley there were 2 pairs at both Amberley and Waltham Brooks; at the latter site one pair reared 2 young. Later in the year 5-6 were at Darwell Res. from late Aug. until 18 Sept., 18 at Petworth Park on 13 Nov. and 4 in Chichester Hbr. on 26 Nov. The very tame flock at Broadbridge Heath which numbered 30 on 3 Jan. had increased to 48 on 15 Nov. The introduced flock at Streham Bridge, in the Adur Valley, totalled 10 on 24 Jan.

55. **CANADA GOOSE (*Branta canadensis*):**—Monthly maxima at the principal autumn and winter sites were:

	Jan.	Feb.	Mar.	Aug.	Sept.	Oct.	Nov.	Dec.
Bewl Water	200	175	100	135	1100	148	180	183
Weir Wood Res.	150	50	65	120	212	505	400+	144
Amberley/Pulborough	400	60	17	400	600	300	200	200
Arundel WFT	194	163	110	235	287	204	250	596
Arlington Res.	209	—	—	88	230	160	500+	234
Lower Cuckmere	146	73	48	137	263	287	373	72
Darwell Res.	39	49	17	222	415	46	75	49
Rye Hbr.	101	96	69	240	340	293	75	49
Chichester GP	—	32	25	—	54	39	—	17

The maxima reported for most sites were lower than in recent years; only 2 very large flocks were reported, i.e. 1200 at Barcombe Res. on 1 Jan. and 1100 at Bewl Water on 18 Sept. Other large flocks reported were 380 at Barcombe on 6 Sept., 150 at Stedham Sandpit on 11 Sept. and 113 at Warnham on 16 Sept.

Breeding season records included 22 young in Petworth Park on 6 June and 20 at Chichester GP on 10 June. Elsewhere 62 pairs were reported from 32 sites. Of these, 43 pairs were known to have bred successfully and reared an average of 3.57 young per pair.

56. **BARNACLE GOOSE (*B. leucopsis*):**—The only records perhaps relating to wild birds were of singles with Brent Geese at Thorney Island from 5 Nov. to 15 Dec. and at Pagham Hbr on 22 Dec. See also Escapes and Ferals on page 71.

57. **BRENT GOOSE (*B. bernicla*):**—The estuary counts were as follows:

	1988						1989							
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Country totals	9566	12282	1337	73	442	11034	9865	12965	12625	4613	—	—	—	—
Chichester Hbr	8276	9721	1309	13	378	9476	9379	10473	9660	3830	—	—	—	—
Pagham Hbr	1251	2551	28	53	1527	477	2476	2965	783	—	—	—	—	—

There were few reports of birds away from the main wintering grounds in the first winter period although 6 over Arlington Res. on 16 Jan. was unusual.

Analysis of the available data from the main sea-watching localities indicates that return passage involved a minimum of 3263 birds, of which 1493 were in Mar., 1657 in Apr. and 113 in May. The low total for Mar. can be attributed to lack of regular observations when passage of the species is normally at a peak.

Thirteen summered in Chichester Hbr and there was 1 at Pevensy Bridge Level on 17 Aug. The first returning birds were 1 E at Rye Hbr on 14 Sept., 7 W at Worthing on 17th and 1 at Pagham Hbr on 20th. Coastal passage in Oct. was poor with a peak of only 321 W at Littlehampton on 18th. Inland, however, there were 50 S at West Chiltington on 17th, 85 S at Castle Hill on 18th, 300 over Haywards Heath on 19th and 75 S in the Ouse Valley on 25th. Nocturnal passage was recorded at Lewes on 20th and 23rd and at Brighton on 25th while in Nov. there were 50 SW over Haywards Heath on 15th and 150 SSW over Bewl Water on 18th.

Regular counts in the western harbours indicated that 1988 was a successful breeding season with wintering flocks averaging about 30% young.

Single birds of the pale-bellied race *brota* were recorded at West Worthing from 1 Jan. to 13 Mar. and on 25 Dec., at Pett Level from 28 Feb. to 3 Mar., off Worthing on 4 May and at Sidlesham Ferry on 30 Nov.

The Black Brant (*B. b. nigricans*) recorded at Thorney Island in late 1988 was present until 21 Feb. and reappeared on 27 Oct. where it remained into 1989 (CBC, MAC *et al.*). These records, assumed to relate to the same individual, have been accepted by *British Birds*.

Cat. C. EGYPTIAN GOOSE (*Alopochen aegyptiaca*):—The only record was of 2 at Waltham Brooks on 24 June (BFF).

61. **SHELDUCK (*Tadorna tadorna*):**—The estuary counts were as follows:

	1988						1989							
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Country totals	2222	2835	1490	49	207	1441	2109	2861	2514	1497	1317	—	—	—
Chichester Hbr	1709	2451	1176	40	168	1228	1896	2514	1497	1317	—	—	—	—
Newhaven	11	6	271	6	32	200	161	299	200	220	—	—	—	—
Pagham Hbr	66	19	27	3	7	8	41	15	40	48	—	—	—	—
Rye Hbr	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Other maxima for the first winter period included up to 22 in the Lower Cuckmere in Jan., 28 in Feb. and 25 in Mar., and 12 at Amberley on 20 Feb.

As usual, small numbers were seen on spring passage in Mar-May with counts for this period of 47 E, 6 W at Selsey Bill, 131 E, 108 W at Worthing, 108 E, 20 W at Seaford and 41 E, 4 W at Beachy Head. There were no significant peak movements.

In the breeding season 18 pairs were reported from 11 sites. A total of 90 young were seen comprising 31 at Rye Hbr, 18 at Newhaven Tidemills, 10 at Waltham Brooks, 9 at Burpham, 8 at Bosham and in the Lower Cuckmere Valley and 6 in the Union Channel. At Rye Hbr only 5 young survived but in the Lower Cuckmere the whole brood fledged successfully.

At Worthing there were 122 W in Oct.-Dec.

63. **MANDARIN (*Aix galericulata*):**—Few records were received for the early months; however, there were 21 at Swanbourne Lake on 21 Jan. and 6 at Shillinglee Mill Pond on 16 Jan. In the breeding season the species was reported from 12 sites in SU82 and SU92 and bred successfully at 4. On May 28 there were 2 drakes, 5 ducks and 21 young at Swanbourne and a pair was known to have raised 4 young at Weir Wood Res. Successful breeding in nestboxes was reported from Maynards Green (3 pairs — 2 successful) and Rotherfield where one pair reared 4 young. Elsewhere breeding was considered probable at Buckhurst Park, Blackboys and Eridge Park.

At the end of the year there were 10 at Maynards Green and occasional records of 1-2 at most of the major reservoirs, i.e. Barcombe, Weir Wood, Ardingly, Arlington and Darwell. One in the car park at Selsey East Beach on 23 Nov. was unusual.

64. **WIGEON (*Anas penelope*):**—The monthly wildfowl counts at the principal localities were:

	1988						1989							
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Country totals	2356	1409	924	509	976	2157	3135	3594	2718	1098	—	—	—	—
Cuckmere Valley	688	453	185	133	133	311	511	800	672	62	—	—	—	—
Chichester Hbr	523	248	272	14	293	855	1205	1363	786	285	—	—	—	—
Amberley	500	200	84	5	26	300	600	600	600	400	—	—	—	—
Bewl Water	391	313	271	68	93	282	256	257	290	111	—	—	—	—
Pagham Hbr	122	87	8	8	8	220	92	30	159	2	—	—	—	—

The Jan. 1988 total was less than half the average for recent years and numbers dropped away rapidly in Feb. and Mar. Other counts received for the Lower Cuckmere Valley included 725 on 30 Jan., 704 on 6 Feb. and 500 on 10 Mar. On 1 Apr. there were 24 at Cuckmere Haven and 1-2 drakes remained until 14 Apr. Other late records were of a duck in Chichester Hbr on 30 Apr., a drake at Rye, 14-20 May, and single pairs at Barcombe Res. on 17 May and at Chichester GP on 5 June.

In the late summer the first to return were 2 at Cuckmere Haven on 13 Aug., a single and 3 at Rye Hbr on 25 and 29 Aug. respectively and 2 at Thorney Deepes on 28 Aug. The first major influx occurred between 16-18 Sept. when there were 200 at Thorney, 38 in the Lower Cuckmere Valley, 33 at Pett Level and 15 at Church Norton. In the Lower Cuckmere numbers had reached 97 on 1 Oct. and 329 on 29 Oct. after two further arrivals, and then rose steadily to 416 on 26 Nov. and 673 on 31 Dec. On 18 Dec. there were 450 at Pett Level.

67. **GADWALL** (*A. strepera*):—The monthly wildfowl counts at the principal localities were:

	1988			1989		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
County totals	188	112	99	93	208	89
Arundel WFT	23	34	75	42	31	26
Swanbourne Lake	59	12	4	17	6	7
Bewl Water	58	19	2	31	17	63
Amberley	28	25	9	8	8	11
Pett Level	4	4	4	—	11	25
Rye	3	6	2	1	2	10

The Jan. 1988 total was well below the average for recent years. Other counts included 24 at Aldsworth Pond on 21 Jan. and 20 at Waltham Brooks on 10 Jan. Spring passage at the coast was sparse and although reported from 6 localities during the spring and early summer there was no positive evidence of breeding. On 9 Aug. there were 20 at Waltham Brooks. Other counts towards the end of the year included 37 at Burton Pond on 17 Sept. reducing to 26 by 29 Dec.

69. **TEAL** (*A. crecca*):—The monthly wildfowl counts at the principal localities were:

	1988			1989		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
County totals	2580	1999	418	2101	2629	1600
Chichester Hbr	1465	502	216	643	1425	862
Amberley	500	200	73	221	1508	862
Bewl Water	109	63	13	17	200	300
Cuckmere Haven	121	67	—	3	—	2
Pagham Hbr	103	87	—	34	27	66
Darwell Res.	67	64	20	—	131	421
Rye Hbr	35	34	—	50	99	156
				148	240	211

The Jan. 1988 total was about average for recent years. Other counts received included 250 at Darwell Res. on 31 Jan. and 300 on the Upper Adur Levels on 14 Feb.

In Jan. there were 10 at Sidlesham Ferry on 13th, 20 on Pevensey Levels and 28 on Pett Level on 18th. Other records from potential breeding sites were 2-3 drakes at Waltham Brooks, 1-3 at Rye Hbr and single pairs at Thorney Island, Redford Pond, and Weir Wood. A duck was seen with 3 young at Pevensey Levels on 2 July.

Numbers at Rye increased steadily from the end of Aug. when 160 present. Other counts at the end of the year included 300 at Thorney Deepes on 16 Sept., 1000 in Thorney Channel on 22 Oct. and 420 on Pett Level on 18 Dec.

70. **MALLARD** (*A. platyrhynchos*):—The monthly wildfowl counts at the principal localities were:

	1988			1989		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
County totals	3955	2485	1689	3057	3694	4016
Chichester Hbr	675	354	216	29	372	432
Arundel WFT	531	331	380	347	372	678
Bewl Water	333	275	84	48	43	65
Rye Hbr	320	194	89	456	249	217
Pagham Hbr	262	207	183	371	359	323
Darwell Res.	267	78	35	125	145	235
Alexandra Park	113	107	86	190	151	224
Arlington Res.	186	54	—	—	98	285

The Jan. 1988 total was slightly below average for recent years. Other records included 350 at Darwell Res. on 31 Jan. and 200 at Waltham Brooks on 10 Jan.

The breeding population at Rye was estimated at 40 pairs; breeding success was poor with first young not seen before 7 June. Elsewhere there were 20 pairs on Amberley Brooks and 16 pairs at Thorney Deepes.

At the end of the year counts included 200 at Warnham Mill Pond on 27 Oct., and 400 on Pett Level on 18 Oct.

72. **PINTAIL** (*A. acuta*):—The monthly wildfowl counts at the principal localities were:

	1988			1989		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
County totals	438	174	40	3	3	3
Pagham Hbr	286	32	2	—	—	—
Amberley	126	112	6	1	3	9
Chichester Hbr	26	21	32	—	—	35

The Jan. 1988 total was about average for recent years. Other counts included 10 at Knepp on 24 Jan. and 66 and 22 on the Adur Levels on 2 and 7 Feb. respectively. In Apr. there were 6 at Thorney Deepes on 8th, 3 at Pett Level on 10th, a pair at Sidlesham on 16th and singles at Pett Pools, Normans Bay and Pevensey Bridge Levels between 16th and 23rd. A duck at Thorney Deepes on 11 May was the last.

At Rye a duck with 3 juveniles was seen regularly from 16 July until 28 Aug. Return movement was first noted at Worthing on 21 Aug. Thereafter there were 5 at Sidlesham on 23 Aug., a drake at Thorney Deepes on 7 Sept. and 22 there on 16 Sept. Other records at the end of the year included 80 flying over Ardingly Res. on 25 Oct., 130 at Thorney Deepes on 26 Oct., 30 at Waltham Brooks on 29 Dec., and one flying over Warnham Pond on 31 Dec.

73. **GARGANEY** (*A. querquedula*):—The first two records were of an early bird at Rye Hbr on 8 Mar. and 2 E off Brighton Marina on 21 Mar. At Pett Level 2 were first seen on 8 Apr. but up to 10 were present later in the month. Other records included one pair at Combe Haven on 20 Apr. and 2 drakes on Pevensey Bridge Level from 25 Apr. to 1 May.

During the breeding season 5 pairs were reported from 3 sites and 2 pairs bred successfully at one of these. Single drakes were also reported from 2 other potential breeding sites. Three drakes and a duck were present again at Pevensey Bridge Level from 10-17 June. In the autumn good numbers were seen in the east of the county with a maximum of 22 on Pett Level on 20 Aug. and 14 at Rye on 29 Aug. Elsewhere single ducks were reported from Waltham Brooks on 8 Aug. and 17 Sept. The last was at Pett Pools on 5 Nov.

75. **SHOVELER** (*A. clypeata*):—The monthly wildfowl counts at the principal localities were:

	1988			1989		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
County totals	168	70	139	77	63	170
Amberley	100	27	31	7	31	100
Chichester GP	—	12	40	—	34	4
Pett Level	38	16	17	2	—	6
Pagham Hbr	—	4	28	—	—	24
Arundel WFT	25	9	20	23	37	21

Winter numbers still remain low with the Jan. 1988 total less than half the average in recent years. Regrettably the regular wildfowl counts do not include Pevensey Levels and the Crumbles GP, which are important sites for this species. At Pevensey Bridge Level counts included 96 on 11 Feb., 92 on 4 Mar., and 71 on 30 Mar., at the Crumbles GP 58 on 28 Jan., 92 on 4 Feb. and 104 on 13 Feb. Elsewhere other counts included 125 at Waltham Brooks on 10 Jan., 61 at Pett on 18 Jan. and 51 at Chichester GP on 10 Mar. At the coast spring passage was noted at Worthing and Seaford from 10 Apr. to 22 May.

In the breeding season possible pairs were estimated as follows: Rye — 2, Pevensey Levels — 3, Sidlesham — 2, Waltham Brooks — 2, Thorney Island — 1. Breeding was proven only at Sidlesham where a duck with 2 young was seen on 7 July. In addition there were 9 drakes at Rye and 7 at Pevensey Bridge Level on 11 June, and 3 at Sidlesham Ferry on 26 June. By 12 July the species was regular again at Rye. By 29 Aug. numbers there had

rised to 70 and 28 were at Thorney. Other significant counts included 80 at Pett Level on 18 Sept., and 100 and 70 there on 8 Oct. and 27 Dec. respectively; 20 at Burton Pond on 28 Oct., 21 at Warnham on 27 Dec. and c.50 at Arlington Res. throughout Dec.

77. **POCHARD** (*Aythya ferina*):—The monthly wildfowl counts at the principal localities were:

County totals	1988			1989		
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.
Arundel WFT	341	328	328	108	492	900
Chichester GP	149	117	144	52	192	346
Rye Hbr	106	114	61	4	41	45
Bewl Water	59	74	21	6	13	122
Weir Wood Res.	65	15	16	10	12	47
Barcombe Res.	5	13	—	3	16	53
Warnham	14	34	17	NC	6	9

The Jan. 1988 count was well below the average for recent years and was the second lowest in the last 10 years. Other counts included 81 and 66 at the Crumbles on 28 Jan. and 8 Feb. respectively, 86 at Knepp on 24 Jan., 115 at Weir Wood on 26 Feb., and 20 at Widewater on 21 Feb.

In the breeding season a duck present daily at Rye from 13 June may have nested. At Chichester GP up to 7 drakes were reported in June and 1-2 at Swanbourne, but no ducks seen. By 28 June, 6 drakes and 3 ducks present at Rye and 11 drakes and 4 ducks at Chichester GP.

A drake arrived at Thorney Island on 1 July and 2 were back at the Crumbles GP on 21 July. At the end of the year other records included 125 and 101 at the Crumbles GP on 24 Nov. and 8 Dec., 110 at Rye on 21 Nov., 81 at Barcombe Res. on 29 Dec., 75 at Weir Wood Res. on 30 Dec., 42 at Warnham on 26 Dec. and 31 at Darwell Res. on 13 Nov.

80. **TUFTED DUCK** (*A. fuligula*):—The monthly wildfowl counts at the principal localities were:

County totals	1988			1989		
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.
Arundel WFT	377	304	138	96	141	197
Chichester GP	290	295	121	210	217	278
Bewl Water	271	98	96	86	59	166
Rye Hbr	140	188	150	23	15	76
Barcombe Res.	37	43	5	6	18	32
Cuckmere Haven	33	28	22	—	—	10
Burton Ponds	10	22	47	29	34	31
Petworth Park	3	30	9	28	56	27

The Jan. 1988 total was the highest recorded since 1982. Other counts from the Crumbles GP included 84 on 14 Jan., 88 on 18 Feb. and 48 on 14 Mar. Elsewhere there were 44 in the Lower Cuckmere on 15 Feb., 32 at Gravetye in Feb. and 13 at Widewater on 15 Jan. At Rye only 2 of 13 pairs bred successfully rearing 8 and 5 young. At Chichester GP there were 22 drakes and 13 ducks on 10 June but by Aug. only 6 broods (totaling 20 young) had been seen. Elsewhere successful breeding was reported from Thorney Island and Inholmes Copse. Any information on the breeding status of this species is always welcome.

At the end of the year at the Crumbles GP there were 88 on 24 Nov. and 103 on 8 Dec.

81. **SCAUP** (*A. marila*):—In Jan. and Feb. a maximum of 8 at Pagham, 8 at the Crumbles GP and 11 at Rye Hbr; 2 were at Widewater on 4 Jan. Only singles remained at the Crumbles on 25 Feb. and at Pagham on 6 Mar. On 29 Mar. there were 2 at Church Norton, and 2 E at Selsey on 13 Apr. On 10 Apr. there were still 10 at Rye but numbers reduced slowly with the last seen there on 30 Apr.

In the autumn the first was one at Weir Wood on 23 Sept. A drake was in the Lower Cuckmere Valley from 29 Oct. until 6 Nov. and a duck at Brooklands during the same period. There were 2 at Pett Pools on 2 Nov. and elsewhere in Nov. and Dec. numbers built up to 22 at the Crumbles, 32 at Rye and 2-3 at Pagham.

82. **EIDER** (*Somateria mollissima*):—The approximate monthly totals and peak counts at the main localities were as follows:

County totals*	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Chichester Hbr	41	37	32	5	10	4	25	16	51	131	289	
Pagham Hbr	7	4	—	1	2	2	2	2	2	13	67	115
Pevensey Bay	—	11	30	—	4	2	2	23	3	17	20	15
Selsey Bill	30	20	—	—	6	—	—	—	9	—	17	35

*these exclude birds seen migrating along the coast.

Spring passage at the main sea-watching localities totalled 150 E of which 30 were in Mar., 61 in Apr. and 59 in May.

At Worthing there were 113 W in Dec. including 77 on 15th.

Inland there was a male at Barcombe Res. on 25 Oct. (RDME).

86. **LONG-TAILED DUCK** (*Clangula hyemalis*):—The approximate monthly totals were:

Jan.	Feb.	Mar.	Apr.	May	Nov.	Dec.
4	6	7	2	1	25	20

The birds present at Pagham Hbr and at the Crumbles GP in Dec. 1987 (SxBR 1987) remained until 10 and 24 Apr. respectively. Elsewhere single females were recorded at Rye Hbr from 6 Jan. to 14 Feb. and at Darwell Res. on 17 and 31 Jan. and 13 Mar. Up to 3 were present off Pett Level from 6 Feb. to 12 Mar. and there was an unusual record of 2 on the Arun at Houghton Bridge on 22 Mar. A very late bird flew E at Beachy Head on 22 May.

In Nov. up to 4 were recorded in Chichester Hbr and 3 in Pagham Hbr. A party of 6 W at Church Norton on 11th and one at Selsey Bill on 22nd were probably different from the Pagham birds. At Rye Hbr different females were present on the Ternery Pool and on the Long Pits from 5th and 6th respectively into Dec. In addition there were 3 E at this locality on 26th, 2 off nearby Pett Level on 6th, 3 at Darwell Res. on 13th and one at Bewl Water on 27th, which remained into 1989.

In Dec. there were 7 in Chichester Hbr on 13th and 10 on 27th. A female at Selsey Bill on 6th was possibly one of the 3 still present in Pagham Hbr on 8th but only 2 remained on 20th and none thereafter. Elsewhere there were 2 E off Rye Hbr on 29th and 2 at Darwell Res. on 30th.

87. **COMMON SCOTER** (*Melanitta nigra*):—Observations at the main sea-watching localities were as follows:

Direction of movement	Jan-Feb.		Mar-May		June-July		Aug-Sept.		Oct-Dec.	
	E	W	E	W	E	W	E	W	E	W
Selsey Bill	—	—	1115	—	55	30	13	—	57	8
Worthing	14	3	3426	75	34	59	14	105	142	210
Seaford	—	—	6987	—	55	—	—	—	—	—
Beachy Head	—	—	2327	—	—	—	—	—	—	30

Analysis of the Mar-May period indicates that E. spring passage involved a minimum total of 9430 birds. Of these 225 were in Mar., 7817 in Apr. and 1388 in May. The peak movement occurred on 14-15 Apr. when there were 4122 E at Seaford.

At Rye Bay, a regular wintering site for the species, the maximum count for the early part of the year was 260 on 20 Feb. 100 were still present on 30 May and there were 500 on 30 Dec.

The only inland record was of one at Weir Wood Res. on 14 Sept.

89. **VELVET SCOTER** (*M. fusca*):—The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	4	51	5	—	1	—	—	6	—	—	11

In Feb. there were 3 in Rye Bay on 6th and 1 on 21st whilst in Mar. a single was present at Pett Pools on 1st-4th. Spring passage was noted from 18 Mar. with birds recorded flying E

as follows: Selsey Bill 11, Worthing 10, Seaford 25 and Beachy Head 20. Analysis of these records indicates that a minimum of 58 birds were involved. The peak movement occurred on 2 Apr. when there were 14 at Beachy Head.

A single bird was recorded at Church Norton on 12 July (PJB), a very early date for autumn arrival, but there were no further records until 1 Oct. when a male was seen off Pett. Other Oct. sightings were 2 W at Worthing on 29th and 3 off Bexhill on 30th. In Dec. there was 1 at Church Norton on 8th and 6 on 13th, 3 off Lancing on 11th and a male in Chichester Hbr on 28th.

91. **GOLDENEYE** (*Bucephala clangula*):—The approximate monthly totals and peak counts at the main localities were as follows:

County totals*	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Bewl Water	45	53	39	14	1	1	1	1	1	15	48	63
Chichester Hbr	6	5	5	1	—	—	—	—	—	7	19	28
Crumbles	25	40	19	1	—	—	—	—	—	—	2	1
Pagham Hbr	3	—	—	—	—	—	—	—	—	—	1	11
Rye Hbr	1	1	3	3	—	—	—	—	—	1	4	13
Weir Wood Res.	5	3	5	3	—	—	—	—	—	—	1	6
Weir Wood Res.	3	1	6	—	—	—	—	—	—	—	—	8

*these exclude birds seen migrating along the coast.

A summering female was present at Chichester GP from 29 May to at least 6 July (CRJ).

On 9-10 Nov. there were 8 W at Littlehampton.

93. **SMEW** (*Mergus albellus*):—The mild weather at both ends of the year resulted in rather fewer records than in recent years. In Jan. there were 2 redheads throughout the month at Bewl Water and 1 at Rye Hbr. Two were present at the latter locality on 31st and there was a single redhead on the R. Arun near Arundel on 21st. In Feb. up to 7 (1 male) were recorded at Rye Hbr until mid-month with 1-2 thereafter. Elsewhere there were 3 (1 male) at Bewl Water from 14-26th, the redheads remaining until the following day, and a male at the Crumbles GP on 25th. The only Mar. records were from Rye Hbr with up to 6 (1 male) until 9th, one remaining until 17th.

At the end of the year there were 2 redheads at Weir Wood Res. on 21 Nov., 2 redheads at Bewl Water on 18 Dec. and a redhead at Barcombe Res. on 31 Dec.

94. **RED-BREADED MERGANSER** (*M. serrator*):—The estuary counts and monthly maxima at the main localities were as follows:

Estuary count	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Chichester Hbr	107	92	96	—	—	—	—	—	1	10	110	212
Climping	89	104	77	23	2	3	2	1	1	10	62	98
Pagham Hbr	25	12	19	5	—	—	—	—	—	—	27	44
Worthing	3	28	22	16	—	—	—	—	—	—	9	52

Spring passage at the main sea-watching localities totalled 609 E, of which 172 were in Mar., 398 in Apr. and 39 in May. The peak movement occurred on 14 Apr. when there were 86 in 11.5 hours at Seaford.

In addition to the summering birds listed above, there was one off Selsey Bill on 1 and 16 Aug.

Inland records were of pairs at Bewl Water on 2 Apr. and 1 Nov. and single redheads at Barcombe Res. and Arlington Res. on 11 and 27 Dec. respectively.

95. **GOOSANDER** (*M. merganser*):—In Jan. there were 2 at Thorney Island on 16th, 2 at Darwell Res. and 4 at Bewl Water on 17th, 7 at the latter locality on 23rd and, unusually, 3 in Chichester Hbr on 24th. A male at Arlington Res. from 14-17 Feb. was probably that seen in the Lower Cuckmere Valley from 19th to 23rd. The only other Feb. records were of 3 at Bewl Water on 21st and 2 on 26th. In Mar. there was 1 at this locality on 2nd, 8 (3 males) on 13th and 2 redheads on 18th while in Apr. there was a pair on 1st and 12th and a redhead from 4th to 19th. On 3 Apr. there was a male E along the tideline at Rye Hbr.

The first for the latter part of the year was a redhead at Weir Wood Res. on 18 Oct. In Nov. there were 5 (1 male) W at Littlehampton West Beach on 9th, a male at Bewl Water on 13th, 5 (2 males) there on 28th and singles at Widewater, Lancing on 25th and Barcombe Res. on 27th. At Arlington Res. there were 4 on 26th and 3 from 27th to 17 Dec., 2 remaining until 20th, with 4 again present on 27th. Other Dec. records were of 2 at Pett Pools on 2nd, 2 at Pagham Hbr the following day and 6 at Thorney Island and 1 at Pagham on 10th. Two at Barcombe Res. on 4th increased to 3 on 12th and 4 on 30th when there were 4 at Darwell Res.

Cat. C. RUDDY DUCK (*Oxyura jamaicensis*):—During Jan-Mar. recorded at 8 sites (max. in brackets) as follows: Chichester GP (2), Weir Wood Res. (1), Bewl Water (7), Arlington Res. (2), Barcombe Res. (3), Crumbles (2), Rye Hbr (1) and Northpoint GP, Rye (1).

In the breeding season 2 pairs reared a total of 4 young at Swanbourne Lake and one pair reared 3 at a new site in West Sussex. At Chichester GP the exact breeding situation was not known but 2 drakes were present on 10 June and 4 drakes, a duck and 2 young on 17 Sept.

During Oct-Dec. records were received from 9 sites (max. in brackets) as follows: Pagham (1), Chichester GP (4), Arundel WFT (2), Swanbourne Lake (1), Barcombe Res. (2), Arlington Res. (1), Crumbles GP (1), Pett Pools (2) and Rye Hbr (1).

97. **HONEY BUZZARD** (*Pernis apivorus*):—One at Hollingbury on 3 Sept. (LJW) was the only record.

98. **BLACK KITE** (*Milvus migrans*):—One over Pevensey Levels on 14 May (GG, SL, AW). This record has been accepted by *British Birds*, bringing the total number of birds seen in the county to 10, of which 6 have been during the last 6 years.



99. **RED KITE** (*M. milvus*):—An excellent year for the species, with a minimum of 9 birds recorded, the highest total for at least 26 years. Records for the early months were of 1 at Lancing on 21 Jan. (CWM) and further singles at Charleston Bottom on 16 Feb. (PEB) and Walberton on 5 Mar. (RT). A large influx into southeast England, involving at least 40 birds, was noted in mid-Mar. and almost certainly associated with this were singles at Brighton (ADW, LJW) and Seaford (AW) on 22nd and at Fairlight on 5 Apr. (RRG). It is believed that these birds were of E. European origin, returning after wintering in SW Europe, having been deflected north across the Channel by a strong SE airstream on 18th.

Sightings for the remainder of the year were at Kingley Vale on 6 May (BS), Blackcap on 16 June (BMM, DCM), Pett Level and Rye Hbr on 5 Nov. (CHD, SJRR, HT) and Firle Beacon on 27 Nov. (SL).

103. **MARSH HARRIER** (*Circus aeruginosus*):—A record year for the species with 39-42 birds reported. The approximate monthly totals were as follows:

Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	15	—	1	7	6	7	1	3

The Mar. record was at Rye Hbr on 30th while that in Apr. was at Littlehampton, also on 30th. In May there was a female at Pulborough Brooks on 4th while on 7th there were 2 females at Combe Haven and 2 different females observed by seawatchers at Newhaven, Seaford and Birling Gap. Another female was present at Pevensy Bridge Level on 8th and possibly the same bird on 10th. On 15th there was 1 N from the sea at Seaford and a female at Combe Haven, where 2 immatures were present on 17th. Further females were recorded at Balsean and Pevensy on 21st and singles at Rye Hbr on 25th and at Combe Haven on 31st.

The first recorded in autumn was a single bird at Pett Level on 28 July. Most records for Aug.-Oct. were of immatures at coastal localities but, inland, there were singles at Warnham MP on 17 Sept. (SM) and at Pulborough Brooks on 6 Oct. The only Nov. record was of a female in the Sidlesham area from 20th to 22nd. In Dec. there was 1 at Rye Hbr on 7th, a female at Sidlesham between 7-10th and possibly the same bird at Thorney Island from 11-26th.

104. **HEN HARRIER** (*C. cyaneus*):—Mild weather conditions at either end of the year produced smaller numbers than in recent years. The approximate monthly totals were:

Adult males	Jan.	Feb.	Mar.	Apr.	May	Aug.	Sept.	Oct.	Nov.	Dec.
Others	4	4	3	2	2	1	2	9	5	4

The traditional wintering areas were again frequented and the majority of records can be grouped and summarised as follows:

Midhurst area. Single ring-tails at Lavington Common from 7-14 Feb. and at Ambersham Common on 24 Feb.

Selsey Peninsula. A male at Sidlesham on 26-27 Apr. and ring-tails on 29 Oct., and 23 and 27 Nov.

Chichester Downs. A ring-tail at West Dean Woods on 10 Jan.

Arun Valley. An adult male at Pulborough Brooks from 10 Nov. into 1989 and a ring-tail there on 17 Dec.

Cissbury/Chanctonbury. A ring-tail on 15 Oct.

Adur Valley. Single ring-tails at Shoreham airport on 4 Jan. and at Upper Beeding on 29 Dec.

Ouse Valley and Downs. Ring-tails at Balsean on 14 Oct. and at Newmarket Hill on 16 Nov.

Cuckmere Valley and Beachy Head. A ring-tail at Jevington on 13 May, a late date. In autumn, ring-tails at Beachy Head on 22 Sept. and at Seaford Head on 20 Oct.

Pevensy Levels. Ring-tails on 7 Feb. and 25 Aug.

Pett Level/Rye Hbr/East Guldeford Level. A ring-tail at Rye Hbr on 14 Jan., throughout Feb. and on a further 5 dates up to 4 Apr. Possibly the same bird was recorded at East Guldeford Level from 7-20 Feb. and at Pett Level on 4 dates between 17 Mar. and 4 Apr. In autumn, a ring-tail in off the sea at Rye Hbr on 14 Sept. and further ring-tails at Pett from 9-16 Oct. and at Rye on 29 Oct., 12 Nov. and throughout Dec.

Ashdown Forest. Ring-tails on 2 Oct. and 2 Nov. and an adult male near Nutley on 24 Dec.

In addition, there were ring-tails at Guestling Wood on 24 Apr. and Hollingbury Camp on 18 Nov.

Single ring-tails at Seven Sisters on 17 May, Climping on 23 May, Fishbourne on 21 Aug. and at Beachy Head from 16-20 Oct. were either this species or *C. pygargus*.

105. **MONTAGUS HARRIER** (*C. pygargus*):—In spring, there was an adult male at Pagham Hbr on 26 Apr. (TJE), a ring-tail at Pilsley Island on 6 May (CBC) and another adult male over East Grinstead on 16 May (NAD).

Autumn records were of immatures at Pevensy Bridge Level on 11 Aug. (PF) and at Pagham Hbr on 21 Aug. (PJB). The latter bird was also recorded at Westhampton on this

date (EJPS). A ring-tail was noted regularly at Balsean from 6-16 Sept. (GAS) and on 18th there was an adult male at Beachy Head (DC, JFC).

107. **GOSHAWK** (*Accipiter gentilis*):—A female was recorded over Bexhill on 17 Apr. (RS, SS) and an adult female at Weir Wood Reservoir on 13 July (NAD). In Oct., a male at Pevensy Bridge Level on 26th (BDJ, PJ) was possibly the same bird as that seen at Newmarket Hill on 28th (RJF).

108. **SPARROWHAWK** (*A. nisus*):—Reported widely throughout the breeding season including several sightings in built-up areas. During the breeding season up to 38 territories were located. Only 8 pairs were proved to breed, of which 6 raised 9 young. The only unusual record was of one mobbing a Cuckoo at Crowlink on 19 Apr.

109. **BUZZARD** (*Buteo buteo*):—In Jan. single birds were recorded at Charleston Bottom on 3rd, Steyning on 18th, Selmeston from 18th to 21st, Barns Green on 28th and Arlington Res. on 31st. The only Feb. record was of 1 at Glynde Reach on 28th. In Mar. there was 1 at Rackham Mount on 6th but the only other sighting during the month was of 1 at Exceat on 21st. A probable migrant was recorded over Friston Forest on 3 Apr. followed by further migrants at Combe Haven on 11th (2) and on 25th, and over Chichester Hbr on 20th. A total of 7 widely scattered birds was reported in May but there was no evidence to suggest breeding except in Ashdown Forest where a presumably feral individual was noted displaying on 30 Apr.

There were no June records and the only July sighting was of 1 NE at Moulsecocomb Wild Park on 30th. In Aug. there was 1 at Balsean on 22nd while in Sept. a total of only 3 migrants was reported. In Oct. there was 1 at Horse Eye Level on 19th, 1 E at Beachy Head on 20th and a single at Cissbury on 30th. Records for the remainder of the year were of singles at Bignor Hill on 28 Nov., over Broadwater on 1 Dec. and at Herstmonceux on 12 Dec.

113. **OSPREY** (*Pandion haliaetus*):—Another good year for the species with at least 8 recorded in spring and 9 in autumn.

Single birds were recorded at Waltham Brooks on 24 Apr. (GBa, RAI, DIS) and at Pilsley Island on 30th (CBC). During May there was 1 at Powdermill Res. on 5th and 10th (MHB) and this was possibly the same bird as that at Darwell Res., also on 10th (AJH), and at Bewl Water on 14th (PCB). Elsewhere, there were singles in the Lower Cuckmere Valley on 6th (SL, AW), at Climping on 7th (EJPS), at Weir Wood Res. on 8th (MS-H DWM) and at Ardingly Res. on 16-17th (DPH, PAH).

In autumn, immatures were recorded at Weir Wood Res. on 30 July (NAD) and from 29 Aug. to 6 Sept. (mo), the latter ringed on the left leg. At Darwell Res. 2 were reported on 8 Aug. and 1 on 16, 22 and 29 Aug. and on 6 and 17-18 Sept. (MHB *et al.*). Elsewhere there were singles at Sidlesham Ferry on 17 Aug. (TJE), Arlington Res. on 4 Sept. (AW), Barcombe Res. on 8 Sept. (AW), Chichester GP on 18 Sept. (EJPS) and Weir Wood Res. on 25 Sept. (BMM, DCM).

115. **KESTREL** (*Falco tinnunculus*):—During the breeding season up to 87 territories were located and 20 pairs proved to breed. A total of 25 young were reared, a poorer year than normal.

Probable migrants were recorded at Pett Level on 5 Apr. and Cuckmere Haven on 1 Oct.

Of particular interest was a complete albino reported from Hollingbury on 15-16 Aug.

118. **MERLIN** (*F. columbarius*):—The approximate monthly totals, allowing for likely duplication between adjacent sites, were as follows:

Jan.	Feb.	Mar.	Apr.	Aug.	Sept.	Oct.	Nov.	Dec.
10	4	4	10	4	9	16	10	10

In the early months up to 2 were regularly recorded at Chichester Hbr. and at Paghams Hbr. A single bird was reported on several occasions in the Pett/Rye Hbr area in Jan-Feb. but all other records for the first winter period were of chance sightings, mainly on one date only. The last recorded in spring was 1 at Rye Hbr on 22 Apr.

In the latter part of the year there was a juv. at Rye Hbr on 7 Aug. (BJY), the earliest autumn record for the county, followed by further singles at Littlehampton West Beach and Thorney Island on 22nd and at Climping on 27th. During the remainder of the year there were many reports of birds hunting both coastal and downland localities. At Thorney Island there were 2 females on 4 Oct. and a male and a female throughout Dec. while at Pulborough Brooks, where 1 was observed mobbing a Marsh Harrier on 6 Oct., there were 2 on 22 Dec.

119. HOBBY (*F. subbuteo*):—A good year for the species with many widely scattered reports. The first of the year were singles at Selsey Bill and at an inland locality on 25 Apr. Another 22 were recorded on spring passage.

Although there were no reports of confirmed breeding, the available records suggested the presence of up to 20 territories in the county.

A total of 42 birds were noted on autumn passage, the last at West Wittering on 15 Oct.

123. PEREGRINE (*F. peregrinus*):—1985:—An imm. at Denton on 1 Nov. (NJT).

1988:—The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	1	4	2	—	—	1	1	3	4	3	5

In Jan. there was 1 at Roedean on 19th and single adult females at Cuckmere Haven on 10th and at Icklesham on 28th. The only Feb. record was of 1 observed chasing Oystercatchers at Rye Hbr on 8th and 17th. The latter bird was possibly that reported from Camber Castle on 6 Mar. Other records for Mar. were of singles at Pevensey Levels, also on 6th, at Bewl Water on 8th and a female at Pett Level on 23rd. In Apr. there were immatures at Lancing on 3rd and at Birling Gap and Cuckmere Haven on 9th, and an unaged bird at Crowthorn on 19th.

The first recorded in the second half of the year was an imm. male at Icklesham on 24 July. An adult male at Beachy Head on 18 Aug. was seen again on 25 Sept. and was possibly the unaged bird reported from this locality on 19 Sept. and 16 Oct. Other Sept. records were of adult females in the Lower Cuckmere Valley on 3rd and at Pilsey Island on 13th and 1 on Lewes Brooks on 5th. In Oct. there was 1 at Rye Hbr on 5th and 8th and immatures at Arundel WFT and Pilsey, both on 25th. The latter bird was probably that recorded at West Wittering on 5 Nov. and at Thorney Island on 10-11 Nov. and 13 Dec. Other Nov. records were of immatures at Paghams Hbr on 1st and at Glynde Reach on 13th and 1 at Rye Hbr on 12th. In Dec. there was a male at the latter locality on 8th and possibly the same bird at Pett Level on 24th. Elsewhere there was an adult at Thorney Island on 23 and 27 Dec. and 2 adults at Seven Sisters Country Park on 23rd.

129. RED-LEGGED PARTRIDGE (*Alectoris rufa*):—The largest coveys reported were 30 at Singleton, 27 between Charlton and East Dean and 22 at Byworth. The true status of the species in the county remains obscured, however, by the release of Chukars (*A. chukar*), Rock Partridges (*A. graeca*) and Chukar x Red-legged hybrids for shooting purposes and the above records should be treated with some caution.

130. GREY PARTRIDGE (*Perdix perdix*):—The only large coveys reported were 40 at Lancing, 25 at Thorney Island, and 17 and 13 at Rye Hbr. Little information was received for the breeding season but, at Thorney 12 pairs were present.

131. QUAIL (*Coturnix coturnix*):—1987:—One heard calling at Denton on 5 and 23 Aug. 1988:—A poor year in contrast to 1987 with just 6 reported calling as follows: 1 at Lullington 21 Apr., 1 at Pett Level 6 May, up to 3 at Cissbury 10 May-24 June and 1 between Falmer and Woodingdean 17 and 20 July. Single birds were flushed at Filsham on 18 June (IDH), and at Falmer Hill on 7 Oct. (JPS).

133. PHEASANT (*Phasianus colchicus*):—Breeding season reports were of 24 territories in 117.9 ha at Kingley Vale, 7 territories in 12.1 ha at West Dean Woods and 18 pairs at Bewl Water.

Cat. C. GOLDEN PHEASANT (*Chrysolophus pictus*):—1987:—During the breeding season 22 territories were recorded in 117.9 ha at Kingley Vale and 2 territories in 12.1 ha at West Dean Woods.

1988:—Two territories were again occupied in West Dean Woods but at Kingley Vale a marked decline occurred with only 10 territories recorded.

Cat. C. LADY AMHERST'S PHEASANT (*C. amherstiae*):—A male of unknown origin was recorded at Wiggonholt Common on 22 Dec. (PMB).

136. WATER RAIL (*Rallus aquaticus*):—Approximate monthly totals of non-breeding birds were:

Number of sites	Jan.	Feb.	Mar.	Apr.	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of birds	8	9	9	5	3	2	6	6	11	11
Number of birds	53	50	40	40	3	2	7	41	66	65

During the early part of the year up to 40 were present at a locality in the east of the county and 10 at Arundel WFT but numbers elsewhere were small.

In the breeding season there were reports from 3 localities holding 1, 2 and 11-12 pairs respectively. Young birds were heard calling at the last of these sites but there was no evidence of successful nesting at the other localities.

The first returning birds were seen at Nutbourne on 7-8 July, at Pondlye on 11th and at South Stoke on 29th. In Oct-Dec. up to 40 were recorded at the site holding large numbers in the early part of the year but no more than 10 were reported elsewhere except for 25 at Pett Level on 5 Nov.

137. SPOTTED CRAKE (*Porzana porzana*):—Another good year with 6 individuals recorded. At one site in the east of the county birds were heard on 4 Apr. and between 1-10 May with one seen there briefly on 17 Apr. In autumn a very obliging individual was watched by many at Paghams Hbr from 30 Aug-7 Sept. (MO *et al.*), being seen again on 11th (CBC, MAC), while at Pett Level another was seen on 10 and 12 Sept. (IF, SJRR) and in Oct. one was heard calling at Waltham Brooks on 16th (MAK).

142. MOORHEN (*Gallinula chloropus*):—In the early part of the year the largest numbers recorded were 68 at Rye Hbr, 25-30 at Combe Haven and 26 at Brooklands.

During the breeding season there were 25 territories along a 4 km stretch of Aldingbourne Rife, 24 pairs at Thorney Deepes, 5 pairs at Warnham MP and 5-6 pairs at Pebsham Tip. Although hatching success was considered good at the last named site, few young survived probably due to predation by foxes.

Counts for the latter part of the year included up to 64 at Rye Hbr, 41 at Weir Wood Res., 42 at Warnham MP and 35 at Chalvington.

145. COOT (*Fulica atra*):—The monthly wildfowl counts at the principal localities were:

County totals	1988											
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.		
Bewl Water	3197	1963	976	1429	1617	1788	1724	1808	1370	846		
Chichester GP	1168	407	224	398	265	273	272	320	215	134		
Rye Hbr	736	352	173	722	915	1011	729	721	528	318		
Ardingly Res.	572	395	162	90	139	182	302	282	184	76		
Chichester Hbr	183	242	57	11	11	29	28	36	51	25		
Arundel WFT	114	96	19	1	—	2	1	4	10	18		
Paghams Hbr	74	87	59	49	41	47	71	64	45	42		
Arlington Res.	56	72	70	42	29	40	63	62	59	48		
Darwell Res.	46	41	16	—	1	—	15	42	53	51		
Pett Level	26	62	54	—	4	9	15	42	53	4		
	26	40	15	9	33	6	26	81	61	19		

In the early months up to 2 were regularly recorded at Chichester Hbr. and at Paghams Hbr. A single bird was reported on several occasions in the Pett/Rye Hbr area in Jan-Feb. but all other records for the first winter period were of chance sightings, mainly on one date only. The last recorded in spring was 1 at Rye Hbr on 22 Apr.

In the latter part of the year there was a juv. at Rye Hbr on 7 Aug. (BJY), the earliest autumn record for the county, followed by further singles at Littlehampton West Beach and Thorney Island on 22nd and at Climping on 27th. During the remainder of the year there were many reports of birds hunting both coastal and downland localities. At Thorney Island there were 2 females on 4 Oct. and a male and a female throughout Dec. while at Pulborough Brooks, where 1 was observed mobbing a Marsh Harrier on 6 Oct., there were 2 on 22 Dec.

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1988:—The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
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In Jan. there was 1 at Roedean on 19th and single adult females at Cuckmere Haven on 10th and at Icklesham on 28th. The only Feb. record was of 1 observed chasing Oystercatchers at Rye Hbr on 8th and 17th. The latter bird was possibly that reported from Camber Castle on 6 Mar. Other records for Mar. were of singles at Pevensey Levels, also on 6th, at Bewl Water on 8th and a female at Pett Level on 23rd. In Apr. there were immatures at Lancing on 3rd and at Birling Gap and Cuckmere Haven on 9th, and an unaged bird at Crowthorn on 19th.

The first recorded in the second half of the year was an imm. male at Icklesham on 24 July. An adult male at Beachy Head on 18 Aug. was seen again on 25 Sept. and was possibly the unaged bird reported from this locality on 19 Sept. and 16 Oct. Other Sept. records were of adult females in the Lower Cuckmere Valley on 3rd and at Pilsey Island on 13th and 1 on Lewes Brooks on 5th. In Oct. there was 1 at Rye Hbr on 5th and 8th and immatures at Arundel WFT and Pilsey, both on 25th. The latter bird was probably that recorded at West Wittering on 5 Nov. and at Thorney Island on 10-11 Nov. and 13 Dec. Other Nov. records were of immatures at Paghams Hbr on 1st and at Glynde Reach on 13th and 1 at Rye Hbr on 12th. In Dec. there was a male at the latter locality on 8th and possibly the same bird at Pett Level on 24th. Elsewhere there was an adult at Thorney Island on 23 and 27 Dec. and 2 adults at Seven Sisters Country Park on 23rd.

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The Jan. 1988 total was below average for recent years. Other counts included 65 at Weir Wood Res. on 31 Jan., 62 at Brooklands on 17 Jan. and 50 at Crumbles GP on 25 Jan. During the breeding season populations (pairs) were estimated as follows: Thorney Deep 24, Pett Level 21, Rye Hbr 12 and Ardingly Res. 9. At Chichester GP 182 birds were seen on 10 Jun. At the end of the year counts included 74 at Crumbles GP on 28 Dec., 68 at Burton Pond on 11 Dec., 62 at Warnham on 20 Oct. and 56 at Brooklands on 28 Dec.

151. **OYSTERCATCHER** (*Haematopus ostralegus*):—The estuary counts were as follows:

County totals	1988											
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Chichester Hbr	770	732	465	6	51	1190	682	831	819	450	162	450
Pagham Hbr	492	403	368	252	300	326	154	205	241	162	6	6
Pett Level	12	20	17	4	4	8	—	—	—	—	—	—
Rye Hbr	409	291	362	320	268	181	185	265	370	327	—	—

Breeding records were very incomplete with counts of pairs received from 4 localities only as follows: Rye Hbr maximum of 27, Stakes Island 11, Ellanore 2 and Pilsley Island 1. At the former site nest losses were high due to predation and probably only 5 young successfully fledged.

The only inland records were of singles at Bewl Water on 21 Feb. and 30 Apr.

153. **AVOCET** (*Recurvirostra avosetta*):—The monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	3	4	16	24	18	2	—	1	3	3	5

In the early months there were 2 wintering in Chichester Hbr, singles at Sidlesham Ferry on 6 Jan. and 18 Feb., and 2 there on 29 Mar.

During Apr. there was 1 E at Beachy Head on 3rd and 3 E and 1 E at Brighton Marina on 3rd and 10th respectively. A total of 8 birds were recorded at Rye Hbr during the month and there were singles at 3 other localities. In May a number of reports included 2 E at Seaford on 1st, 4 at Rye Hbr on 8th, 5 E at Worthing on 16th, 2 on Pevensey Bridge Level on 21st and 6 there on 26th. The last spring migrants were 7 at Rye Hbr on 16th, 2 remaining until 18th.

The only autumn migrants were 2 at Pett Level on 19 July, a juv. at Rye Hbr on 3 Sept. and 1 W at Worthing on 30 Oct. 2 returned to Chichester Hbr on 14 Oct. where they remained until the end of the year and there was a single bird in Pagham Hbr from 20 Nov. to at least 26 Dec. Other Dec. records were of singles passing Lancing on 25-26th and Seaford on 27th.

154. **STONE CURLEW** (*Burhinus oedicnemus*):—One at Glynne Gap on 2 Oct. (HHG) was the only record.

158. **LITTLE RINGED PLOVER** (*Charadrius dubius*):—The approximate monthly totals away from known breeding sites were as follows:

Mar.	Apr.	May	June	July	Aug.	Sept.
4	10	8	3	37	31	7

The first of the year were a pair at an inland locality on 24 Mar. followed by singles at Brighton Marina on 28th and Combe Haven on 30th.

In the breeding season 11 pairs were reported, of which it appears 6 were successful in rearing at least 12 young.

A single bird at Shoreham on 7 July was the first autumn migrant reported while the largest post-breeding group was 9 at Pett Level on 30th. In mid-Aug. up to 5 at Pevensey Bridge Level included a colour-ringed juv. of unknown origin. A juv. remained at Sidlesham Ferry into Sept. and was probably the individual noted in Pagham Hbr on 4th. Other singles were at Pevensey on 3rd and 8th, Arlington Res. and Weir Wood Res. on 12th, with 2 at the latter site from 13-15th. One at Pett Level on 27th was the last for the year.

159. **RINGED PLOVER** (*C. hiaticula*):—The estuary counts were as follows:

County totals	1988											
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
R. Adur	139	54	11	NC	NC	NC	NC	—	96	—	—	50
Chichester Hbr	309	280	82	139	80	524	344	691	683	—	—	4
Cuckmere Haven	—	—	—	34	28	26	27	14	27	—	—	—
Pagham Hbr	50	65	50	87	272	360	244	187	239	—	—	61
Rye Hbr	3	40	62	37	81	36	30	16	13	—	—	71

Jan. peaks away from the main localities included 309 at Ferring and 30 at Brighton Marina.

Spring passage was heavier than in 1987 with 91 E recorded at Worthing in Apr-May and up to 41 at Pevensey Bridge Level. In Chichester Hbr, where 200 were present in late Apr., numbers increased to 450 on 19 May but then declined to 105 on 28 May and 44 on 5 June.

Breeding records were again incomplete with 55-56 pairs reported as follows: Rye Hbr 40, Pilsley Island 5, Brighton Marina 2 (1 young), Cuckmere Haven 2 (2 young), Ellanore 2-3, Cobnor Point 1, Stakes Island 1, Thorney Island 1 and Wepham Down 1. At Rye Hbr breeding success was poor due to extensive predation but repeated attempts at re-nesting enabled 15 young to reach the flying stage.

Autumn passage was heaviest in late Aug. and early Sept. with counts of 245 on R. Adur on 26 Aug., 900 at Thorney Island on 28th, 340 at the former locality on 3 Sept. and 376 on Pilsley Sands on 8th.

Dec. peaks away from the main sites included 41 at Littlehampton West Beach and 17 at Newhaven Tidemills.

161. **KENTISH PLOVER** (*C. alexandrinus*):—A female in Chichester Hbr from 15 to 19 May (CBC, MAC) was the only record.

163. **DOTTEREL** (*Eudromias morinellus*):—At Balsdean, a regular site for the species, there were 6 on 15 Apr. and in Aug. a single on 22nd, 3 on 23rd and 5 on 24-27th (GAS).

164. **AMERICAN GOLDEN PLOVER** (*P. dominica*):—An adult at Church Norton from 14-17 Sept. (JBR, ASC, TJE et al.) has been accepted by *British Birds* and is the first record for the county. A full account of this bird is given on page 89.

165. **GOLDEN PLOVER** (*Pluvialis apricaria*):—The estuary counts were as follows:

County totals	1988											
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
Chichester Hbr	972	1500	—	52	161	584	54	1850	1043	—	—	—
Pagham Hbr	250	345	23	2	505	315	—	140	363	—	—	—
Rye Hbr	—	1200	—	—	—	420	525	70	2	—	—	—

The peak counts for Jan-Mar., away from the sites listed above, were 1300 at Broomhill Level, and 500 at Horse Eye Level. The only Apr. records were 221 at Pagham Hbr on 5th and 127 at Thorney on 9th. The last for the spring were 5 at the latter site on 17 May.

The first returning birds were 1 at Rye Hbr on 8 Aug. and 24 at Church Norton on 11th. Numbers remained small until mid-Oct. when there were 200 at Pagham on 14th. The maxima reported for the remainder of the year away from the main sites were 500 at Hooc Level and Jury's Gap, 420 at East Guldeford Level, 300 at Horse Eye Level and 250 at Selsey West Fields.

166. **GREY PLOVER** (*P. squatarola*):—The estuary counts were as follows:

County totals	1988											
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	
Chichester Hbr	1284	1896	2640	1133	1743	1310	2434	3509	3473	—	—	—
Pagham Hbr	1725	968	1931	1070	681	1318	830	1314	2791	2451	—	—
Rye Hbr	1040	886	709	213	335	379	451	1100	673	984	—	—
	30	—	—	—	2	27	4	4	44	30	—	—

The Jan. peaks away from the sites listed above were 116 at Goring, 47 at Pett Level and 11 at Cuckmere Haven.

Spring passage was light with birds recorded flying E. as follows: Selsey Bill 25, Worthing 194, Brighton Marina 32, Seaford 77 and Beachy Head 59. Analysis of these records indicates that a minimum of 212 birds was involved, of which 18 were in Mar., 56 in Apr. and 138 in May. The peak movement occurred on 7 May when there were 58 at Worthing and 49 at Seaford. In Chichester Hbr, where 12 birds summered, there were 273 on 13 Apr. while in May there were 300 on 2nd, 98 on 12th and 20 on 22nd.

Numbers at this locality built up rapidly in Aug. from 322 on 15th to 627 on 30th. At the end of the year, the maxima away from the main sites were 87 at Goring, 75 at Littlehampton West Beach, 43 at Pett Level and 20 at Worthing with smaller numbers at 3 other localities.

The only inland records were of 5 on Lewes Brooks on 19 Sept. and singles at Bewl Water on 1-4 Oct. and 1-13 Nov.

169. **LAPWING (*Vanellus vanellus*):**—Monthly maxima at the main sites were as follows:

	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.
Amberley	2500	—	—	—	—	—	—
Chichester Hbr	3552	1599	21	294	457	1781	2000
Lower Cuckmere	494	500	—	100	1000	550	1750
Newhaven	700	700	—	160	100	500	1100
Pagham Hbr	524	2000	52	199	477	612	5000
Pett Level	2500	108	1500	1	111	61	1054
Pevensey Levels	2000	3000	2000	—	430	500	2000
Rye Hbr	2000	1284	140	660	1024	522	620
Shoreham	1000	257	—	—	—	380	500

Other notable concentrations included up to 2500 at Barcombe Res. in Jan., 1000 on Upper Adur Levels in Feb., 1100 on Lewes Brooks in Oct. and 2000 at Ringmer in Dec.

A total of 120 pairs were reported in the breeding season. The largest concentrations were 40 pairs at Pett Level, 31 pairs at Rye Hbr, 10 pairs each at Amberley and Pulborough Brooks and 9 at Thorney Island. Breeding success was considered good at Pett Level but at Rye Hbr only 20 young were raised, mainly outside the SSSI.

The first returning birds were 10 at Thorney on 28 May and 2 at Cuckmere Haven on 1 June. Numbers built up rapidly thereafter with 400 at the former site on 22 June and 1000 at Waltham Brooks on 12 Aug.

No cold weather movements were reported during the year.

170. **KNOT (*Calidris canutus*):**—The estuary counts were as follows:

County totals	1988			1989			1989			
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	850	976	300	20	40	120	161	1543	650	257
Pagham Hbr	—	—	—	6	40	120	161	1543	650	257

On 3 Jan. there were 70 W at Lancing.

Spring passage was again light with just 185 E recorded at the main sea-watching localities. The peak movement was on 23 May when there were 98 at Worthing. Elsewhere up to 50 were present at Rye Hbr throughout May and 6 at Pevensey Bridge Level on 20th-21st, 4 remaining until 22nd and 1 to 24th.

The first returning birds appeared at Rye Hbr on 12 July where 53 were present on 1 Sept. Thereafter numbers were low with no more than 8 recorded away from the western harbours.

171. **SANDERLING (*C. alba*):**—The estuary counts were as follows:

County totals	1988			1989			1989			
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	550	112	722	12	—	149	211	248	344	367
Climping	301	45	540	—	—	124	121	192	270	300
Rye Hbr	173	3	16	NC	NC	NC	NC	NC	NC	NC

As usual few were reported away from the main sites in the early part of the year except for maxima of 230 at Goring, 80 at East Preston and 25 at Pagham Hbr. all in Jan.

Spring passage was heavier than in 1987 with 539 E recorded at the main sea-watching localities. The peak movements were on 30 Apr. and 8 May when there were 57 and 47

respectively at Worthing. In Chichester Hbr, where 300 were present on 1 Apr., numbers increased to 700 on 19th but then declined to 106 on 7 May, 250 on 17th and still 50 at the end of the month. In June up to 14 were recorded at this site, the last on 28th.

The first returning birds appeared in Chichester Hbr and at Rye Hbr on 9 and 17 July respectively. Up to 3 colour-marked individuals at the latter locality from 27 July to 12 Aug. had been ringed in spring 1985 on either the Alt or Ribble estuary by the Merseyside Ringing Group as part of an international project to study the spring passage of waders (CBC, per AJP). Maxima for the latter part of the year away from the main sites were only 53 at Littlehampton West Beach and 24 at Goring.

Away from the shore, there was a single at Stedham Sandpit on 27 Apr. and 3 on Pevensey Bridge Level on 23 May.

175. **LITTLE STINT (*C. minuta*):**—The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
—	—	—	3	—	—	13	65	10	—	2	—

The May records were of singles at Pagham Hbr on 4-5th, Sidlesham Ferry on 8-9th and Pilsey Island from 16th to 21st.

In Aug. singles were noted at Rye Hbr on at least 9 days during the month from 1st with 3 present on 18th. Elsewhere up to 3 were recorded at Arlington Res. and Sidlesham Ferry and singles at Lancing, Pett Level, Pilsey and Shoreham. Sept. peaks included 9 at Arlington Res. on 18th and 12 at Sidlesham Ferry on 25th. The highest numbers, however, were recorded at Pilsey where there were 4 on 3rd, 26 on 9th, 7 on 25th and 4 on 2 Oct., 2 remaining until 14th. Elsewhere in Oct. up to 2 were present at Rye Hbr and Sidlesham Ferry and singles at Cuckmere Haven and West Wittering. In Dec. there was 1 at Pilsey on 27th (EU) and possibly the same bird in Fishbourne Creek on 30th (CRT).

179. **TEMMINCK'S STINT (*C. temminckii*):**—In May there were 2 at Pevensey Bridge Level on 8th (BDJ, PJ *et al.*), one remaining until the following day, and one at Waltham Brooks on 14-15th (CEH *et al.*).

180. **PECTORAL SANDPIPER (*C. melanotos*):**—A juv. at Arlington Res. on 2-3 Oct. (CB, DBN, MN *et al.*) was the only record.

182. **CURLEW SANDPIPER (*C. ferruginea*):**—A very good year, the high numbers in late Aug. and Sept. reflecting a large influx across the whole of the country. The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	—	1	1	6	3	4	36	112	6	—	—

Singles at Pilsey Sands on 10 Jan. (CBC) and at West Wittering on 19 Mar. (RDME, EU) probably relate to the same individual.

Spring passage commenced with 1 at Rye Hbr on 26 Apr. followed in May by 2 at this site and 4 in the western harbours. In June there was 1 at Pevensey Bridge Level on 13-16th and 2 at Pagham Hbr on 19th. A small influx of adults was noted between 19-24 July followed by a much larger arrival of juvs. from 28 Aug. with peak counts of 20 at Sidlesham Ferry, 16 at Rye Hbr and 15 at Pilsey, all in the first half of Sept. Numbers decreased rapidly after 21st, the last for the year being 1 at West Wittering on 24 Oct.

183. **PURPLE SANDPIPER (*C. maritima*):**—The peak monthly counts were as follows:

County totals	Jan.	Feb.	Mar.	Apr.	May	Aug.	Sept.	Oct.	Nov.	Dec.
Brighton Marina	36	12	79	16	15	2	1	5	53	61
Glyne Gap	5	6	9	—	1	—	—	2	3	4
Littlehampton	4	4	4	4	2	—	—	1	3	24
Newhaven	24	—	25	12	12	2	—	—	1	—
Others	3	2	3	—	—	—	—	—	2	4

The last recorded in spring were 12 at Newhaven on 6 May, 1 E at Brighton Marina on 7th and 2 at Littlehampton on 13th.

In autumn, there were 2 at Newhaven on the early date of 26 Aug. and 1 at Glynne Gap on 8 Sept.

Comparison of the peak monthly counts with those for previous years reveals little change in the numbers wintering in the county as follows:

	1988	1987	1986	1985	1984	1983
County totals	36	12	79	16	5	53
Adur	53	44	80	24	15	45
Chichester Hbr	66	59	60	73	19	48
Pagham Hbr	65	54	80	64	10	44
Rye Hbr	50	51	12	44	13	48
	53	55	48	47	—	38

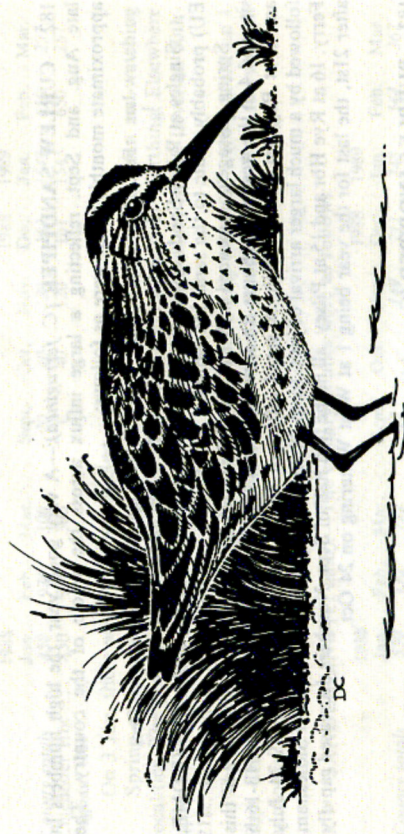
184. **DUNLIN** (*C. alpina*):—The estuary counts were as follows:

	1988			1989		
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.
County totals	4903	18550	6373	770	1397	15155
Adur	1160	1560	204	NC	NC	15230
Chichester Hbr	356	15105	4495	354	76	12915
Pagham Hbr	3235	1809	1647	350	1200	2093
Rye Hbr	100	20	10	36	104	113

As in 1987 there was a marked reduction in numbers in Jan. followed by a recovery in Feb., although, unlike the previous winter, this could not be attributed to harsh weather. Peaks for the early months away from the main sites listed above included 334 at Goring, 200 on Lewes Brooks and 60 at Cuckmere Haven.

Spring passage was light with 467 E recorded at the main sea-watching localities. Of these, 44 were in Mar., 239 in Apr. and 184 in May. The peak movements occurred on 22 and 29 Apr. when there were 71 and 69 at Worthing respectively. In Chichester Hbr numbers increased from 700 on 20 Apr. to 1500 by the end of the month. 1000 were still present on 10 May, 134 on 28 May and 52 on 4 June. At least 20 birds summered at this site.

Returning migrants were first noted on 29 June at Rye Hbr and on 1-2 July at Weir Wood Res. and Pevensey Bridge Level respectively. In Chichester Hbr numbers built up rapidly from 108 on 8 July to 500 on 17th, 1500 at the end of the month and 3500 on 2 Aug. At Sidlesham Ferry there were 200-300 on 10 July and 200 on 12 Aug.



185. **BROAD-BILLED SANDPIPER** (*Limicola falcinellus*):—One seen at Pevensey Bridge Level on 8 May (BDJ, PJ *et al.*) has been accepted by *British Birds*, is the 6th county record and the first since 1948. Previous records have been in Mar. and Aug-Oct. (A well-watched wader identified as a Broad-billed Sandpiper in adult spring plumage at Rye Harbour in June 1982 has never been submitted; any notes would be much appreciated.)

188. **RUFF** (*Philomachus pugnax*):—The approximate monthly totals were as follows:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
County totals	96	54	51	6	12	19	21	51	17	12	37	20
Amberley	40	—	—	—	—	—	—	—	—	—	—	—
Chichester Hbr	52	38	4	2	1	1	—	2	2	7	9	6
Pagham Hbr	—	10	36	3	2	1	5	12	26	10	1	1
Pevensey	—	—	4	—	—	1	5	10	2	1	—	—
Rye Hbr	3	6	—	—	2	2	1	2	5	—	—	—

Wintering numbers were again low, particularly in Nov-Dec. with maxima for the year of only 52 at West Wittering on 9 Jan., 40 at Amberley on 14 Jan. and 36 at Sidlesham Ferry on 13 Mar. Up to 26 were present at the latter site in Sept.

189. **JACK SNIFE** (*Lymnocyrtus minimus*):—The minimum monthly totals were:

	Jan.	Feb.	Mar.	Apr.	Oct.	Nov.	Dec.
Number of sites	5	5	3	2	3	5	5
Number of birds	11	11	12	1	12	9	11

During the early months up to 5 were recorded at Lewes, 4 at Glynne Gap and 3 at Combe Haven. Elsewhere there were singles at Ferring Rife, Pevensey Levels, Rye Hbr and Sidlesham Ferry. The last recorded was 1 at Lewes on 17 Apr.

The first returning bird was recorded on 10 Oct. at Rye Hbr. Up to 10 were present during the month at Pett Level while in Nov-Dec. the maxima reported were 4 at Glynne Gap and 3 at Rye Hbr but none at Lewes. Other sightings were of single birds at Ashdown Forest, Climping, Stedham and Thorney.

190. **SNIPE** (*Gallinago gallinago*):—In Jan-Mar. there were peaks of 450 at Lewes, 216 at Newhaven Tidemills, 110 at Shoreham and 100 at 4 other localities. Up to 58 were recorded at the Crumbles in Jan., a high count for this site.

Breeding season records were of 3 pairs at Combe Haven and single birds drumming in Ashdown Forest and at Waltham Brooks.

In the second winter period numbers were low with maxima of only 206 at Rye Hbr, 150 at Combe Haven and 110 at Thorney Deepes.

194. **WOODCOCK** (*Scolopax rusticola*):—A mild winter produced very few sightings with only 9 in Jan., 11 in Feb. and 9 in Mar.

Again a seemingly poor breeding season with only 59 roding birds reported.

Autumn passage was light with 1 reported in Aug., none in Sept., 4 in Oct., 9 in Nov. and 9 in Dec.

195. **BLACK-TAILED GODWIT** (*Limosa limosa*):—The estuary counts were as follows:

	1988			1989		
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.
County totals	353	380	778	706	1227	196
Chichester Hbr	210	71	61	537	674	138
Pagham Hbr	143	305	716	165	51	2

Spring passage was heavier than in 1987 with peak counts for Apr-May of 22 at Pevensey Bridge Level and 15 at Pett Level. Elsewhere there were 6 at Littlehampton on 8 Apr., 4 E at Seaford on 26 Apr., 35-40 E at Chichester GP and 24 at Pilsey Island on 3 May, 18 at the latter locality on 5th, 26 at Fishbourne on 12th, 6 at Thorney Deepes on 16th and singles at Rye Hbr on 15 Apr. and 22 May and Cuckmere Haven on 30 Apr.

The regular summering flock at Sidlesham Ferry peaked at 130 on 25 June.

Returning birds appeared at Thorney on 11 June, Pevensey Bridge Level on 17th and Rye Hbr on 22nd. At the former site numbers built up from 10 on 3 July to 87 on 9th, 116 on 31st and 204 on 3 Aug.

Inland records for the remainder of the year were of 1 SW at Bewl Water on 7 July, 1 at Barcombe Res. on 2 Aug. and 15 at Chichester GP on 15 Oct.

196. **BAR-TAILED GODWIT** (*L. lapponica*):—The estuary counts were as follows:

County totals	1988		1989	
	Jan.	Feb.	Mar.	Apr.
County totals	420	268	176	700
Chichester Hbr	400	251	110	644
Pagham Hbr	20	17	6	14

Spring passage was heavy with 6272 E recorded at the main sea-watching localities. Of these, 4922 were in Apr. and the remainder in May. The peak movements occurred on 29 Apr. when there were 1549 at Worthing, 1090 at Seaford, 1060 at Brighton Marina and 581 at Selsey Bill and on 24 Apr. when there were 979 at Seaford and 657 at Worthing.

In Chichester Hbr, where there were no summering birds, numbers increased from 2 on 21 June to 27 on 6 July, 78 on 8th and 245 on 2 Aug. In Dec. 2400 were present at a high tide roost at this locality on 28th.

198. **WHIMBREL** (*Numenius phaeopus*):—Up to 2 overwintered in Pagham Hbr. In a moderate spring for the species, passage commenced on 2 Apr. with 2 at Thorney Island. At the main sea-watching localities there were 572 E, of which the bulk, 414, were in Apr. The peak movement occurred on 16 Apr. when there were 143 at Worthing. Roosting birds at Rye Hbr increased from 6 on 16 Apr. to 175 on 23rd and at least 280 on 30th. Elsewhere, notable counts included up to 40 at Pevensey Bridge Level in late Apr. and early May and 46 NE over Pilsley Island and 74+ at South Stoke on 8 May. In early June there were singles on 4 dates at Rye Hbr and at Pilsley Island on 2nd and 12th.

The first returning bird was recorded at Cuckmere Haven on 27 June followed by 8 at Pilsley on 28th and 11 on 30th. Peak autumn counts included 57 at Pilsley on 1 Aug. and 30 at Rye Hbr on 8th. In Oct. 14 were reported from 7 sites, including 5 at Pett Level on 30th. A single remained in Pagham Hbr throughout Nov-Dec.

Additional inland records were of 27 at Waltham Brooks on 25 Apr., 9 E at Bewl Water on 7 May and 1 there on 16 July, 13 at Southsea on 14 Aug. and singles at Arlington Res. and Weir Wood Res. on 10 and 11 Aug. respectively.

199. **CURLEW** (*N. arquata*):—The estuary counts were as follows:

County totals	1988		1989	
	Jan.	Feb.	Mar.	Apr.
County totals	3339	1875	979	1815
Chichester Hbr	975	1277	1122	1275
Pagham Hbr	500	469	388	500
Pett Level	1800	82	100	26
Rye Hbr	14	2	36	122
Rye Hbr (night)*	700	400	475	NC

*Nocturnal roost which includes birds from Pett Level and Romney Marsh, excluded from the county totals.

Spring passage was heavier than in 1987 with 209 NE recorded at Pilsley between 9-20 Apr. and peak movements of 24 E at Worthing on 14th and 114 E at Seaford on 16th.

In the breeding season there were 3 displaying in Ashdown Forest on 26 Mar. and 1 still there on 7 May but there was no evidence of confirmed nesting.

The first returning birds were recorded in the Lower Cuckmere Valley on 4 June, at Rye Hbr on 6th and at Pilsley on 15th. At the latter site numbers increased from 24 on 15th to 45 on 29th and 180 on 13 July.

Additional inland records included 25 at Waltham Brooks on 25 Apr. and 16 at Amberley on 11 Dec.

201. **SPOTTED REDSHANK** (*Tringa erythropus*):—The approximate monthly totals were as follows:

County totals	1988		1989	
	Jan.	Feb.	Mar.	Apr.
County totals	1	1	1	5
Chichester Hbr	1	1	1	5
Pagham Hbr	—	—	—	—
Pett Level	—	—	—	—
Rye Hbr	—	—	—	—

In the early months, singles were recorded at Fishbourne on 7 Jan., Thorney Deepes on 21 Feb. and at Pett Level from 2 Mar. Apr. records, additional to those above, were of 2 at Pevensey Bridge Level on 25-26th and 1 heard calling at night over Brighton on 20th. In May there were 3 N at Worthing on 7th and singles at Cuckmere Haven and Pevensey the following day.

The first returning birds were 2 in the Lower Cuckmere Valley and 1 at Sidlesham Ferry on 11th while on 17th there were 3 at Pevensey. In Aug. and Sept. there were singles at the former site and at Shoreham while in the latter month further individuals were noted at Bewl Water, Lancing, Weir Wood Res. and Worthing. Oct. records included up to 6 at Thorney Deepes, where 3 were present in Nov. and 1 to at least 13 Dec.

202. **REDSHANK** (*T. totanus*):—The estuary counts were as follows:

County totals	1988		1989	
	Jan.	Feb.	Mar.	Apr.
County totals	1681	1671	1475	999
R. Adur	161	71	45	NC
Chichester Hbr	1115	1127	997	215
Pagham Hbr	248	321	339	254
Rye Hbr	46	30	68	159

Maxima for Jan-Mar. away from the sites listed above included 84 at Newhaven Tidemills, 60 on Lewes Brooks, 36 at Cuckmere Haven and 11 at Goring.

Data for the breeding season were incomplete but approximately 74 pairs were reported in the county, the largest concentrations being 19 pairs at Pett Level and 16 pairs at Rye Hbr. Breeding success was poor at the latter site with possibly no young raised.

In the latter part of the year the maxima away from the main sites were 747 at R. Adur, 68 in the Ouse Valley, 67 at Cuckmere Haven and 29 at Pett Level.

The creamy individual recorded at Shoreham in 1985-87 was again present up to 18 Feb. and on 26 Dec.

204. **GREENSHANK** (*T. nebularia*):—The approximate monthly totals were as follows:

County totals	1988		1989	
	Jan.	Feb.	Mar.	Apr.
County totals	1	2	1	12
Chichester Hbr	1	2	1	5
Pagham Hbr	—	—	—	—
Rye Hbr	—	—	—	—

As in 1987, spring passage was fairly heavy, particularly in May, with a peak of 30 recorded at Thorney Deepes on 3rd.

Several returning birds were noted from late June with a build up in numbers after 16 July including maxima at Thorney Deepes of 104 on 30 July, 108 on 31 Aug. and 79 in Sept. As in the early part of the year, all records for Nov-Dec. were from the western harbours.

206. **LESSER YELLOWLEGS** (*T. flavipes*):—One on the shore opposite Pett Pools on 14 Aug. (C.Ba, JABG *et al.*) has been accepted by *British Birds* and is the 8th for the county.

208. **GREEN SANDPIPER** (*T. ochropus*):—The approximate monthly totals were as follows:

County totals	1988		1989	
	Jan.	Feb.	Mar.	Apr.
County totals	17	5	10	5
Chichester Hbr	17	5	10	5
Pagham Hbr	—	—	—	—
Rye Hbr	—	—	—	—

In Jan-Feb. up to 6 were recorded at Pett Level, 2 at Barcombe Res., Chichester GP and Pulborough and singles at 4 other localities. Spring passage was again very light with only 4 probable migrants reported.

The first returning birds were 3 at Thorney Deepes on 13 June and 1 at Sidlesham Ferry on 16th. Maxima for July-Aug. included 14 at Thorney and 13 at Chichester GP, both on 3 Aug., 7 at Pevensey Bridge Level and at Darwell Res. and 5 at Pett Level and Weir Wood Res. In Oct. up to 5 were still present at Chichester GP and Pett Level while in Nov-Dec. there were reports from 12 localities, including up to 4 at Lewes Brooks.

209. **WOOD SANDPIPER** (*T. glareola*):—Another good year for the species, the monthly totals being:

May	June	July	Aug.	Sept.
9	4	10	14	13

In May singles were recorded at Pett Level on 1st and Waltham Brooks on 8th. 2 at Pevensey Bridge Level on the latter date were joined by another on 10th. Later in the month there were singles at Rye Hbr on 16th, Pett Level on 17th, Pevensey on 21st and Cuckmere Haven on 21st-22nd. In June there was 1 at Weir Wood Res. on 5th followed by returning singles at Pett on 25th and Pevensey on 26-29th. At Weir Wood Res., where 1 was recorded from 26 June to 5 July, 5 were present on 12 July, 1 on 16th and 2 on 19th. The only other July record was of 1 at Rye Hbr on 16th. Aug. records were of singles at Rye Hbr on 6-7th, 20th and 22nd, Pevensey from 6th to 21st with 2 present on 16th, Arundel WFT on 9th, Bewl Water on 16th and Sidlesham Ferry on 18th and 25th. At Pett Level, where up to 6 were present in Aug., there were 9 on 7 Sept., 2 remaining until the following day. The only Sept. record was of 2 at Rye Hbr, also on 8th.

211. **COMMON SANDPIPER** (*Actitis hypoleucos*):—The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2	2	2	23	96	10	136	169	85	8	5	2

In Jan-Mar. wintering individuals were noted at Ford and at Thorney Deepes. The first spring migrant was recorded at the latter site on 4 Apr. followed by 2 at Billingshurst on 16th and several more the following day. Passage was heaviest in May, the maximum count being 17 at Splash Point, Seaford on 12th.

The first returning birds were singles at Rye Hbr on 21 June and at Thorney Deepes and Waltham Brooks on 24th. Good numbers were recorded in mid-July including peaks of 20 at Thorney on 18th, 12 at Sidlesham Ferry on 22nd and 15 at Rye Hbr the following day. Aug. maxima included 20 at Weir Wood Res. on 11th and 32 along the R. Ouse between Lewes and Newhaven on 14th. The highest Sept. count was 9 at Lewes Brooks on 5th. In Oct. there were 4 in the Ouse Valley on 2nd, 2 at Bewl Water on 16th and singles at Thorney Deepes and Rye Hbr on 13th and 15th respectively. Nov. records were of singles at Bewl Water on 1st, Manhood End on 3rd and Cuckmere Haven on 12th. 2 at Thorney Deepes on 28 Nov. remained until the end of the year.

213. **TURNSTONE** (*Arenaria interpres*):—The estuary counts were as follows:

County totals	1988			1989						
	Jan.	Feb.	Mar.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Chichester Hbr	666	956	767	502	480	606	668			
Glyne Gap	194	78	168	155	206	137	72	65	120	73
Norman's Bay	70	250	?	205	272	143	201	124	295	314
Pagham Hbr	64	119	?	60	68	66	61	62	60	110
Pett Level	331	400	?	135	220	184	164	217	111	170
		101	?	6	1	20	4	12	20	—

Spring passage was fairly light with just 169 E recorded at the main sea-watching localities. The peak movement occurred on 29 Apr. when there were 64 at Selsey Bill. Maxima elsewhere for Apr-May included 231-roosting at Selsey East Beach, 210 at Rye Hbr, 150 in Chichester Hbr, 53 at Pagham Hbr and 49 at Langney Point.

Summering birds at Rye Hbr totalled 8. The first returning birds appeared at Pilsey on 3 July and at Rye on 23rd where numbers increased to 70 on 28th, 85 on 31st and up to 180 during Aug.

216. **GREY PHALAROPE** (*Phalaropus fulicarius*):—In early Sept. there were 2 at Littlehampton (RNP) and 1 at Pilsey (RJS) on 1st. The latter was joined by a second bird on 2nd (CBC) and these remained until 6th. Nearby, at Thorney Deepes, there was a different individual on 3rd (CBC, CT). In Oct. singles were recorded at Rye Hbr. on 7th and 10th (RRG), Langney Point on 9th (JFC, BDJ, PJ *et al.*) and Thorney on 14th (AdP).

217. **POMARINE SKUA** (*Stercorarius pomarinus*):—1987:—Additional spring records were of 2 E at Brighton Marina on 14 May and 4 E on 22nd. In autumn there were single adults round a fishing boat 5 miles off Shoreham on 5 and 11 Aug. and 1 Sept. (RG, NJT).

1988:—Easterly spring passage totals at the main sea-watching localities were: Selsey Bill 19 (peak 11 on 1 May), Worthing 49 (peaks of 6 on 22 Apr. and 22 on 1 May), Brighton Marina 14, Seaford 61 (peak of 38 on 1 May) and Beachy Head 18. Analysis of the above records reveals that a minimum of 91 birds were involved, a figure slightly less than the average of 99 since 1979. Of those recorded, 16 were in Apr. and the remainder in May.

In autumn there was an adult W at Galley Hill, Bexhill on 9 Oct. (KMJ) and an imm. at Langney Point on 11th (MK).

218. **ARCTIC SKUA** (*S. parasiticus*):—After an early individual at Beachy Head on 19 Mar., easterly passage totals at the main sea-watching localities were: Selsey Bill 113, Worthing 152, Brighton Marina 42, Seaford 184 and Beachy Head 62. Analysis of the above records reveals that a minimum of 258 birds were involved, compared with an average of 209 since 1981. Of those recorded, 2 were in Mar., 107 in Apr. and 149 in May. Peak movement occurred during SE winds on 1 May when there were 44 at Selsey Bill and 39 at Seaford. There was some evidence to suggest the possibility of overland migration through the county for in Chichester Hbr there was 1 N on 20 Apr. and 2 singles N on 1 May. One of the latter birds appeared to continue N over the Downs (CBC).

Autumn passage at coastal localities involved about 53 birds between 3 Aug. and 25 Nov. Inland there was 1 at Darwell Res. on 3 Oct. (MHB).

220. **GREAT SKUA** (*S. skua*):—Spring passage was noted between 11 Mar. and 11 June with easterly totals for the main sea-watching localities as follows: Selsey Bill 9, Worthing 19 and Seaford 25. A minimum of 32 birds were probably involved, an identical figure to the average since 1981.

Between 16 July and 28 Dec., when there was 1 W at Brighton Marina, 14 were reported from the coast. Inland, there was an exceptional record of 5 SW at Bewl Water on 30 Sept. (MJP).

222. **MEDITERRANEAN GULL** (*Larus melanocephalus*):—Nearly 200 records were received, showing this to be yet another good year. The increased number of observations made analysis more difficult but the records suggested that about 80 different individuals were involved. These comprised 28 adults, 29 second-year and 23 first-year birds and the minimum monthly totals were:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Adults	3	2	7	3	7	4	4	4	2	4	4	4
Second-year	1	1	3	11	4	1	2	—	4	4	3	3
First-year	—	—	2	6	7	3	3	1	2	1	—	3
TOTAL	5	3	12	20	18	8	9	5	8	9	7	10

The table shows a clear influx during the spring, initially of adults in Mar. with immature individuals in Apr. and May. Several of these records were chance sightings, of mainly immatures in Apr. and May. Two sub-adults were seen between 1306 and 1316 hrs, one of which was probably noted earlier passing Selsey Bill at 1040 hrs and Worthing at 1128 hrs.

Many of the records came from well watched coastal sites like Rye Hbr, Pett, Seaford, Brighton, Selsey Bill and both Pagham and Chichester Hbrs. At these sites the numbers involved were difficult to assess, but at Rye at least 7 individuals were seen in spring, in Chichester Hbr 3 adults were seen on 3 Oct., and 4 were resting together on the playing field at Dorothy Stringer School in Brighton on 15 Dec. Away from the coast singles were recorded at Chichester G.P. on 12 Jan. and 24 Mar., at Lewes on 23 Oct., at Sompting on 7 Dec., at Barcombe Res. on 11 Dec. and finally at Arlington Res. on 31 Dec.

225. **LITTLE GULL** (*L. minutus*):—An excellent year with a record 527 individuals recorded. The following table of minimum monthly totals shows most occurred as usual in spring and autumn:

Jan. Feb. Mar. Apr. May June July Aug. Sept. Oct. Nov. Dec.
 9 3 4 344 88 — 2 9 41 32 — 1

More than usual were recorded in the winter with singles recorded in Jan. or Feb. at Rye, Pett, Widewater and Pagham Hbr, 4 at Langney Point on 2 Jan. and 2 E at Worthing on 21 Jan. Four at Seaford on 21 Mar. were the first of the spring but the main coastal passage occurred in Apr. and early May when at least 403 passed E along the Sussex coast. The spring eastward totals from the regularly watched sites were 33 at Selsey Bill, 149 at Worthing, 61 at Brighton Marina, 391 at Seaford and 32 at Beachy Head. The peak days at all the sea-watching stations coincided with fresh SE winds and most were seen at Seaford where the log recorded 60 on 14 Apr., 105 on 16 Apr., 72 on 18 Apr., 51 on 30 Apr. and 31 on 1 May. Apart from one at Chichester GP on 24 Apr. the other records away from the coast were at Bewl Water where there were singles on 23 Apr., 2 May and 5 May, 4 on 1 May and 2 on 3 May.

For the first year since 1981 none was recorded in June. The autumn passage started slowly with singles at Seaford on 3 July and Selsey on 23 July but the main passage occurred in Sept. and Oct. There were no large movements, with peaks of only 8 E at Beachy Head on 15 Sept. and 15 W at Galley Hill on 9 Oct. Several were recorded at inland sites with up to 3 at both Arlington Res. and Chichester GP on various dates, 3 flying W over Hollingbury Camp on 27 Aug. and singles at Barcombe Res. on 5 Sept. and Waltham Brooks on 14 Oct.

Surprisingly there were no records for Nov. and the last for the year was a single bird at Widewater, Lancing on 26 Dec.

226. **SABINE'S GULL** (*L. sabini*):—On 9 Oct. a juv. was watched feeding off Galley Hill, Bexhill for 30 min. before drifting off W at 1300 hrs (KMJ). At 1450 hrs what was probably the same bird appeared off Shoreham Power Station where it remained for 20 min. before moving on (TJW). This species has now been recorded in 4 of the last 6 years, although the 12 years prior to that produced only 3 records.

228. **BLACK-HEADED GULL** (*L. ridibundus*):—Once again there was no co-ordinated winter roost count, but the largest gatherings recorded were at Bewl Water where 2000 roosted on 3 Feb. and 10000 on 27 Feb., at Rye where 3350 were counted in a field on 1 Feb. and at Pebsham rubbish tip which regularly supported 5000-6000 during the winter.

At least 1500 were at Pevensey Levels on 20 Mar. and on the following day a northerly movement was noted on a wide front between Horsham and Crawley. This coincided with a decrease in the numbers seen at Worthing where after late March a total of 3680 were noted flying E during sea-watches, the peak of 358 being noted on 13 May.

At Rye 440 pairs attempted breeding (1050 in 1987) but success was low due to predation, whereas at Stakes Island, Chichester Hbr there was a record count of 1563 nests. By 25 June adult birds had returned to Hollingbury GC and by early July were back on other Brighton playing fields; 490 were counted at Worthing on 15 July. At Bewl Water 4 were seen on 26 June with 10 on 3 July.

The only interesting counts from the latter part of the year came from inland sites where 6000 roosted at Bewl Water on 23 Nov., 700 were seen at Weir Wood Res. on 3 Dec. and 560 noted at Warnham MP on 26 Dec.

Albino individuals were noted at Rye on 12 Mar. and at Climping on 9 May.

233. **COMMON GULL** (*L. canus*):—Throughout the year only small numbers were recorded, the largest gatherings being 209 at Hollingbury GC on 31 Jan., 1000 roosting at Bewl Water on 3 Feb., 220 near Small Doole on 9 Mar., 126 flying N at the Cuckmere Haven on 9 Apr., 208 E at Worthing (out of a spring total of 504 E) on 14 Apr., 150 at Pilsley in late July and 150 at Pebsham refuse tip in Dec.

A leucistic individual was seen at Goring on 26 Mar. and over Broadwater, Worthing on 27 Mar. Possibly the same bird was seen flying E with other Common Gulls at Brighton Marina on 14 Apr. and an 'albino type' was seen at Rye Hbr on 31 May.

234. **LESSER BLACK-BACKED GULL** (*L. fuscus*):—Recorded as usual in small numbers throughout the year. The largest winter counts were 80 in a field near Faygate on 2 Feb. and roosts at Bewl Water of 42 and 55 on 2 Jan. and 3 Feb. respectively. At Bewl Water spring passage was noted between 13 Mar. and 24 May with a peak of 19 on 24 Apr. Numbers at other sites increased in spring when a maximum of 30 were seen at Rye Hbr, 20 at Combe Haven, 23 NE over Buchan Park on 13 Apr., 26 E over the Cuckmere Haven on 16 Apr. and 13 E at Brighton Marina on 29 Apr.

A pair were seen displaying regularly at Rye Hbr at the end of May, staying until early June. Two flew S over Ruspur on 2 June and 13 others were recorded throughout the county during June; however, no notable gatherings were recorded until Aug. when 30 were at Rye Hbr and 28 in the lower Cuckmere Valley. At Bewl Water autumn passage was recorded between 27 July and 16 Oct. with a maximum of 28 SW on 28 Aug. The highest counts later in the year were 55 at Brighton Marina on 21 Oct., 23 at Pilsley on 26 Nov., 39 at Weir Wood Res. on 12 Dec., 96 in a single group at Pagham on 19 Dec. and 32 at Warnham Mill Pond on 25 Dec.

235. **HERRING GULL** (*L. argentatus*):—Winter counts were few and involved only small numbers except at Pebsham refuse tip where the peaks were 2500 in Feb., 500 in Aug., 1000 in Nov. and 2000 in Dec. At Rye Hbr 600 immatures roosted at the Ternery Pool during the summer. Nesting was confirmed at Rye Hbr (16 pairs) and on roof tops in St Leonards, Brighton and Worthing.

An albino individual was seen at Belle Tout on 16 Oct.

Records of the yellow-legged race (*L. a. michahellis*) were as usual mainly from the Chichester area and in the Adur Valley. However, a single was seen at Brighton in July and 2 were seen in Oct. at Littlehampton. A single wintering individual which regularly returns to the Cuckmere Valley does not conform to the usual pattern of occurrence, as shown by the following table of minimum monthly totals:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	—	—	—	7	6	34	15	4	6	1

237. **GLAUCOUS GULL** (*L. hyperboreus*):—Although there were many observations throughout the year, a close scrutiny of the records suggests that as few as 5 birds may have been seen in the county. The table of minimum monthly totals is as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2	3	2	—	—	—	1	1	1	1	1	2

The scale of duplication of the records from the Chichester area, where an adult was recorded at several sites between 6 Jan. and 5 Mar. is unclear. A first-year was seen on the sea at Church Norton on 20 Feb. and may have been the same individual as that at Worthing on 3 Mar. and at Seaford on 24 Mar. Undoubtedly a first-year at Pebsham on 25 Jan. and an adult at the Crumbles on 28 Feb. were different individuals from those recorded in the West of the county.

The regular adult returned to Selsey on 28 July and was recorded there on many days until late Dec. An adult, almost certainly this bird, was also recorded in Chichester Hbr in Aug. and Oct. and in Pagham Hbr in Nov. and Dec. Finally a first-year was seen in Pagham Hbr on 15 and 20 Dec. and at Pilsley Sands in Chichester Hbr on 21 Dec.

238. **GREAT BLACK-BACKED GULL** (*L. marinus*):—The log from Rye notes 'never less than 200' but otherwise counts from the early part of the year were small, with 115 noted in the Cuckmere Haven on 16 Jan. and 100 at West Beach, Littlehampton on 29 Jan.

During the summer 80 were at Pilsley in Chichester Hbr and over 100 were seen daily on a field at Roedean in late Aug. and early Sept. Autumn counts came from various sites: at Pebsham refuse tip the 100 counted on 29 Aug. had increased to 250 by Dec., at the Crumbles there were 750 on 11 Sept. and 500 on 19 Nov., the maximum count in the Lower Cuckmere Valley was 333 (comprising 244 adults, 60 second-year and 29 first year) on 17 Dec., and the regular roost in the Adur Valley increased from 110 on 8 Sept. to 230 on 20 Dec.

240. **KITTIWAKE** (*Rissa tridactyla*):—Small numbers were recorded offshore in the winter months, particularly at Worthing where 28 flew W on 12 Jan. and 37 W on 31 Jan., and at Rye where peaks of 20 and 30 were recorded on 7 Feb. and 10 Mar. respectively. The largest spring movements were 200 E observed in 1½ hrs at Beachy Head on 19 Mar. and 159 E in 5½ hrs of watching at Brighton Marina on 30 Apr. Interestingly at Worthing on 30 Apr. there were only 9 E during precisely the same hours watched; generally fewer were seen from the sea-watching sites in West Sussex, as the total for the period Mar-May at Worthing was 308 E and 143 W and at Selsey 109 E and 92 W, neither site showing any real peak.

Regrettably there was no summer count at the Newhaven breeding colony (972 nests in 1987) nor from a new colony at Splash Point, Seaford. The autumn roost at Brighton Marina reached a peak of 200 on 1 Sept. and then slowly declined but there were still 67 there on 1 Nov. There were no autumn movements of note but 76 flew W at Worthing on 26 Dec. One picked up dead at Arundel WFT was the first record for this reserve and the only inland record.

242. **GULL-BILLED TERN** (*Gelochelidon nilotica*):—An adult at Pett Level on 15 Aug. (RMF, RPF) has been accepted by *British Birds*, is the 4th record in the last 5 years and coincidentally was on the same date as one at Langney Point in 1987.

245. **SANDWICH TERN** (*Sterna sandvicensis*):—First recorded on the early date of 3 Mar. at Church Norton and on 12th at Rye Hbr. A more general arrival was noted on 19th and by 31st there were at least 150 at Rye. Easterly passage totals at the main sea-watching localities were: Selsey Bill 2079, Worthing 5043, Seaford 4961 and Beachy Head 1300. A minimum of 6631 birds were involved, of which 45 were in Mar., 4407 in Apr. and 2179 in May.

At Rye Hbr. where good numbers were present at the start of the breeding season, the colony deserted in early May, possibly due to disturbance by a fox. There was no evidence of nesting in Chichester Hbr.

In autumn there were 115 at Pagham Hbr on 18 July and 100 at Rye on 20th. Sea-watching at Worthing, where there was 1 W on the late date of 20 Nov., recorded 560 W and 120 E in July-Oct.

The only inland record was of 1 E at Weir Wood Res. on 31 Aug.

246. **ROSEATE TERN** (*S. dougallii*):—1987:—The individual present at Brighton Marina on 3 and 21-25 Sept. (SvBR 40:42) was also seen on 31 Aug. (NJT).

1988:—There were singles E at Worthing on 30 Apr. (PMB, BAEM, DIS), 23 May (JAN, RJS) and 23 June (JAN). At Rye Hbr. where there was 1 on 24 June and 2 from 25-27th, a maximum of 3 adults and a 1st-year were recorded in July and an adult from 4-14 Aug. (BJY *et al.*).

247. **COMMON TERN** (*S. hirundo*):—In Chichester Hbr 13 nests containing 27 eggs and 4 chicks were counted on 14 June. A further visit to the colony on 14 July revealed 14 nests, 20 eggs and 1 chick. At the Rye Hbr colony there was a welcome increase in numbers and good breeding success with 83-92 pairs raising about 120 young to the flying stage. On the Society's rafts at Chichester GP about 13 pairs were present and at least 30 young seen, despite helicopter disturbance in late May. A pair nested in Pagham Hbr but failed to produce young, and there was again a pair at Bewl Water during Apr-May which did not breed.

At least 60 were present in Chichester Hbr on 22 Aug.

248. **ARCTIC TERN** (*S. paradisaea*):—A total of 13 were identified on the coast in May and a single was present at Rye Hbr during June.

In autumn, totals of 7 inland and 13 coastal birds were reported, the last 2 juvs at Shoreham Hbr on 9 Oct.

247/248. **COMMON/ARCTIC TERN**:—First recorded were 2 E at Beachy Head on 2 Apr. Easterly spring passage totals at the main sea-watching localities were: Selsey Bill 2647, Worthing 8394 (peaks of 3269 on 1 May and 1323 on 23rd), Seaford 10813 (peaks of 2651 on 1 May and 1935 on 23rd) and Beachy Head 3719. Analysis of these records indicates that a minimum of 12658 birds were involved, of which 3189 were in Apr. and 9469 in May. As with Arctic Skua there was some evidence to suggest overland passage through the county for in Chichester Hbr there were 184 N in 2 hrs on 23 May.

Autumn passage at Worthing during Aug-Oct. totalled 1308 W and 238 E with a peak of 342 W in 2.1 hrs on 3 Sept. On 9 Aug. there was a flock of 45 S over the Adur Valley at Upper Beeding in conditions of mist and low cloud.

The last recorded were singles in Chichester Hbr on 20 and 23 Oct. and at Langney Point on 21st.

251. **LITTLE TERN** (*S. albigrons*):—First recorded on 6 Apr. at Worthing. Easterly passage totals at the main sea-watching localities were: Selsey Bill 321, Worthing 663 and Seaford 303. Analysis of the available data indicates that a minimum of 732 birds were involved and that the peak movement occurred on 1 May. Two at Bewl Water on 30 Apr. were unusual and on 7 May there were 7 N in the Lower Cuckmere Valley.

In Chichester Hbr 9 pairs were present on 14 June but there was no evidence of successful nesting at this site. At Pagham Hbr 9 pairs fledged 6 young while at the Rye Hbr colony the breeding population was again about 55 pairs. Windy weather during the main hatching period and predation by a Kestrel, crows, foxes and possibly badgers resulted in only 8 young fledging.

In autumn, there were 3 at Bewl Water on 9 Aug. On 31 July 84 were roosting on Pilsley Island in Chichester Hbr and there was another peak there of 60 on 16 Aug. The last for the year were 3 at the same site on 2 Oct.

253. **BLACK TERN** (*Chlidonias niger*):—First recorded on 14 Apr. at Chichester GP and Seaford. Easterly passage totals at the main sea-watching localities were: Selsey Bill 61, Worthing 68, Seaford 101 and Beachy Head 37. Analysis of these records indicates that a minimum of 131 birds were involved, of which 25 were in Apr. and 106 in May. The peak movement was on 7 May when there were 44 at Seaford.

In June there were singles at Sidlesham Ferry on 10th, Warnham Mill Pond from 10-12th, Cuckmere Haven on 18th and at Pebsham on an unspecified date.

In autumn a total of 32 birds were reported from 4 Aug. onwards. The monthly totals were Aug. 12, Sept. 17 and Oct. 3. The last of the year was 1 at Chichester GP on 29 Oct.

254. **WHISKERED TERN** (*C. hybridus*):—One present at Rye Hbr on 28-29 May (RRG, RGH *et al.*) has been accepted by *British Birds* and is the 8th to be recorded in the county. Six have been seen in spring, between 14 May and 4 June, and 2 in Sept.

255. **GUILLEMOT** (*Uria aalge*):—Again more numerous than Razorbill and reported from various coastal localities (excluding visible passage) as follows:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Dead	2	1	—	—	—	—	—	—	—	—	4	—
Oiled	3	2	—	—	—	—	—	—	—	—	—	46
Dead and oiled	—	—	—	—	—	—	—	—	—	—	—	10
Other	1	4	13	6	4	5	—	1	1	3	16	187

The major oiling incident of late Dec. brought many birds close inshore and the totals given for this month probably represent only a fraction of the birds involved. Although the number of apparently healthy birds reported appears high, it is likely that many of these were suffering from the effects of ingesting oil. The largest concentrations reported were 50 off Lancing and 41 off Worthing on 23 and 26 Dec. respectively. See also Auk sp.

257. **RAZORBILL** (*Alca torda*):—Again scarce with few records received. The approximate monthly totals (excluding visible passage) were as follows:

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Dead	—	—	—	—	—	—	—	—	—	—	—	—
Oiled	—	—	—	—	—	—	—	—	—	—	—	—
Others	—	—	—	2	3	—	—	—	—	1	2	5

There were no reports of dead and oiled birds. See also Auk sp.

260. **LITTLE AUK** (*Alle alle*):—One was found freshly dead at Shoreham on 9 Jan. (MF). A small influx occurred in late autumn with 2 off Brighton on 27 Oct. (RG, NJT), up to 3 in the Selsey Bill/Church Norton area between 26 Nov. and 4 Dec. as follows: one on 26-28 Nov. and 4 Dec., 2 on 30 Nov. and 3 on 1 Dec. (mo) and one W at Galley Hill, Bexhill on 8 Dec. (RS, SS).

261. **PUFFIN** (*Fratercula arctica*):—A total of 5 were recorded as follows: 3 on the sea off Pett Level on the unusual date of 29 Mar. (BMM, DCM), one E at Brighton Marina on 29 Apr. (CB) and one 8.6 miles off Brighton on 7 June (BJE per RDME).

AUK SPECIES:—Observations at the main sea-watching localities were as follows:

Direction of movement	Jan.-Feb.		Mar.-May		June-July		Aug.-Oct.		Nov.-Dec.	
	E	W	E	W	E	W	E	W	E	W
Selsey Bill	—	—	15	—	—	—	—	—	—	—
Worthing	13	37	65	28	1	—	4	14	21	102
Brighton Marina	—	—	14	1	—	—	—	—	—	—
Seaford	—	—	128	—	—	—	—	—	—	—
Beachy Head	—	—	162	—	—	—	—	—	—	—

The peak movements occurred on 2 May when there were 137 E at Beachy Head and 63 E at Seaford and on 23-24 Dec. when there were 8 E, 75 W at Worthing.

Cat. C. RING-NECKED PARAKEET (*Psittacula krameri*):—As usual, most records were for Hollingbury Woods, Brighton where up to 8 were present throughout the year. A single pair bred raising one young. All other records were of single birds as follows: Ditchling on 9 Jan., Church Norton on 14 Feb., 26 Mar. and 16 Apr., Aldwick on 6 Mar., Westfield during the first week of Mar., Lower Cuckmere on 26 Mar., Combe Haven on several dates in spring and Three Bridges on 31 July. The records for Church Norton fall during the period when an Alexandrine Parakeet was present at this locality (see Escapes and Ferals on page 71) and it is possible, therefore, that these sightings relate to this bird.

264. **STOCK DOVE** (*Columba oenas*):—During the early part of the year the largest flocks reported were up to 150 at Upwaltham in Mar., 51 at Ansty in Mar. and 42 at Clapham in Feb. Once again few breeding records were received, the only systematic counts being 6 pairs in 280 ha at Hollingbury Woods, 4 pairs in 60 ha at West Chilmington, 3 pairs in 117.9 ha at Kingley Vale and 1 pair in 43.5 ha at Maynards Green. Up to 60 were present at Rye Hbr in June but the only large flock reported late in the year was 75 at Ripe in Dec.

265. **WOOD PIGEON** (*C. palumbus*):—During the first half of the year there were reports of flocks of 200 or more from 8 localities but no large movements were recorded.

Breeding season reports were of 23 pairs in 117.9 ha at Kingley Vale, 3 pairs in 12.1 ha at West Dean Woods and 30 pairs at Bewl Water.

In autumn very numerous particularly in late Oct. with 3012 E at Cuckmere Haven, 2000 at Climping, 1500 at Beachy Head and 250 E at Hollingbury on 29th, 2017 E at Cuckmere Haven, 2000 at Beachy Head, 1600 W at Littlehampton West Beach and 400 at Hassocks on 30th and 500 E at Lewes, 1000 at Bewl Water and 148 SE at Brighton on 31st. In Nov. up to 500 were present at Beachy Head on 5-6th and 400 on 13th. Other large flocks during the month included 710 S at Chalvington on 20th, 180 SE at Brighton on 21st and 600 at Balmers Down on 27th. The latter increased to 1000 on 4 Dec. and 4000 on 18th. Elsewhere in Dec. there were 1000 W at Lewes on 9th, 300 SW at Hassocks on 12th, 2000 W at Shoreham on 15th, 1000 at Newhaven on 24th and roosts of 4000 and 2500 at Newmarket

Hill and Ashcombe Bottom on 16th and 27th respectively. Up to 1500 were present at Rye Hbr during the latter part of the month.

266. **COLLARED DOVE** (*Sireptopelia decaocto*):—The only large flocks reported were 57 at Upper Beeding on 18 Jan., up to 220 at Rye Hbr in Oct-Dec., 200 at Shoreham on 30 Oct., 58 at Yapton on 2 Nov., 75 at West Wittering on 10 Dec. and at least 100 at Ovingdean in Dec.

A single almost white bird at Rye Hbr from Apr. was joined by a second from 1 Oct.

267. **TURTLE DOVE** (*S. turtur*):—First recorded on 13 Apr. at Ford and on 16th at Beachy Head. Spring passage was generally very light except for 20 at Rye Hbr on 8 May and 13 N at Combe Haven the following day.

Counts of breeding birds in defined areas are given on page 52. Elsewhere there were 8-10 pairs at Icklesham and 4 pairs at Thorney Deepes but at Slinfold the species was reported as virtually absent with no pairs present in the parish.

Autumn passage was very poor with a peak count of just 8 at Waterhall on 18 Aug. The last for the year were 3 at Beachy Head on 16 Oct. and singles at Winchelsea and Whitbread Hollow on 20th and 29th respectively.

271. **CUCKOO** (*Cuculus canorus*):—First recorded on 11 Apr. at Rye Hbr and Thorney Island and on 13th at Southwick Hill followed by a widespread arrival on 16-17th. The largest concentration reported in spring was 12 at Pagham Hbr on 7 May.

In the breeding season 7-8 pairs held territory at Thorney Island. A nestling was fostered by Meadow Pipits in Ashdown Forest and the first fledged juvenile was recorded in the Lower Cuckmere Valley on 18 June.

The last for the year was one at Church Norton on 18 Sept.

274. **BARN OWL** (*Tyto alba*):—Records are tabulated as follows:

Year	Breeding Season			Breeding Success	
	Known pairs	Probable pairs	Birds present	Young raised	No. pairs successful
1987	3	2	12	4	1
1988	16	6	14	32	13
					Winter birds
					20
					15

There was a welcome return in almost all aspects to the comparative success enjoyed by this species in the years 1982-86 and the number of young raised was the highest recorded, albeit this figure may have been influenced in part by 'introductions' in previous years. Deserved credit should be given to an observer in the west of the county whose diligent field work resulted in the locating of 6 breeding pairs which raised 14 young — all observers in suitable localities, please note! In the east SJRR recorded two pairs that fledged at least 9 young whilst a pair in central Sussex produced 4. Records were not numerous but coverage was well spread and many pellets were noted. There was one road casualty recorded.

279. **LITTLE OWL** (*Athene noctua*):—Records are tabulated as follows:

Year	Breeding Season			Breeding Success		Winter birds
	Known pairs	Probable pairs	Birds present	Young raised	No. pairs successful	
1987	41	14	33	9	6	17
1988	18	16	32	26	13	25

There were fewer records for this species than in recent years and the figure for total sites shows a gradual decline from the 1983 high point of 108. Breeding success, however, was markedly higher and, although the east of the county was poorly represented, at least 5 pairs bred in the Rye Hbr SSSI area. A pair raised 4 young in a barn near Patching and two pairs were successful with 5 young reared near Climping. Although widespread, coverage was patchy and the havoc wreaked by the 1987 storm may also have contributed to the disappointing results. Horsham provided the only urban record. This species appears to be under-recorded.

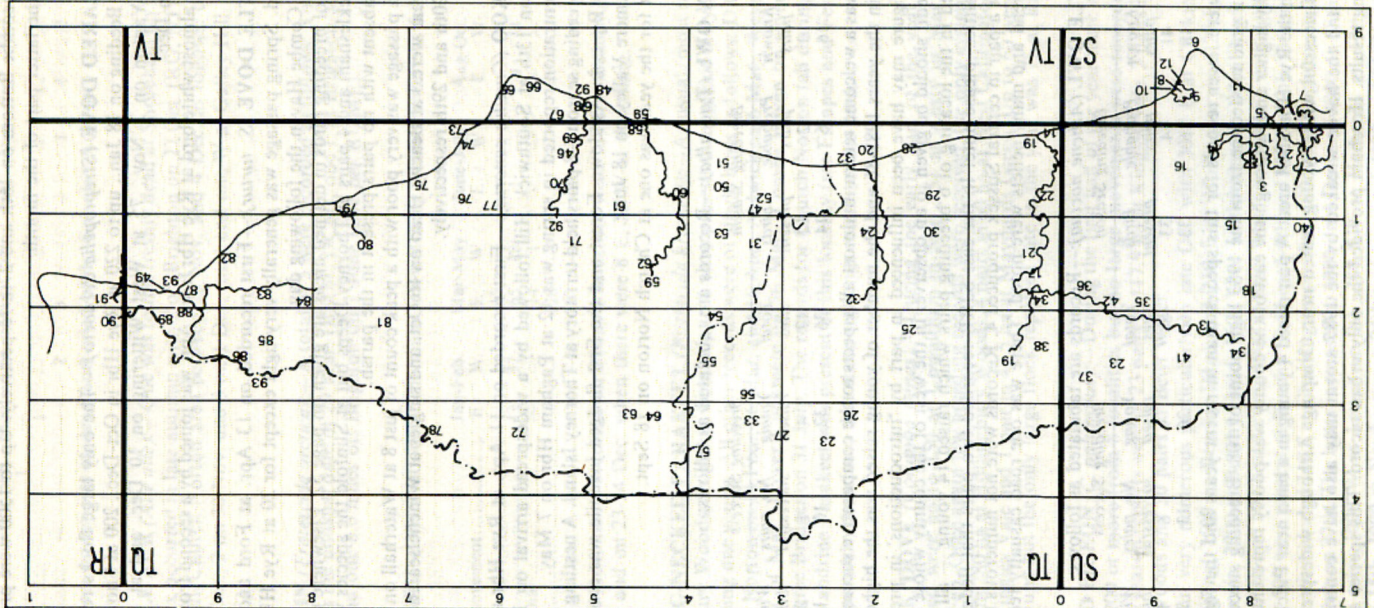
- 21 Amberley Wild Brooks
- 35 Amberham Common
- 56 Ardingley Reservoir
- 70 Arlington Reservoir
- 22 Auncler Park/Wildowl Trust
- 53 Ashcomb
- 63 Ashdown Forest
- 51 Baldsban
- 62 Barcombe Reservoir
- 65 Beachy Head
- 85 Beckley Woods
- 24 Bedling Brooks
- 66 Belle Tout
- 78 Bewl Water
- 66 Briling Gap
- 55 Bluebell Railway
- 11 Bracklesham Bay
- 83 Brude Levels
- 90 Brooklands
- 28 Broomhill Level
- TQ91/92, TR01/02
- TQ23
- TQ70/71
- SU91
- SU91
- TQ91
- TQ30
- TQ32
- TQ30
- 54 Chatley Common
- 30 Chanctonbury Ring
- 69 Charleston Redbed (Lillington)
- 16 Chichester Gravel Pits
- 1 Chichester Harbour
- 3 Chidham
- 12 Church Norton
- 29 Cissbury Ring
- 14 Climping
- 17 Coldwalham
- 79 Combe Haven
- 74 Crumbles Gravel Pit

- TQ01
- SU91
- SU91
- TQ91
- TQ30
- TQ32
- TQ11
- TQ50
- SU80
- SZ79, SU70/80
- SU70
- SZ89
- TQ10
- TQ00
- TQ01
- TQ70/71
- TQ60
- 68 Cuckmere Haven
- 81 Darwell Reservoir
- 31 Ditchling Beacon
- 89 East Guildford Level
- 7 East Head
- 37 Eborac Common
- 68 Excat
- 79 Fisham Redbed
- 4 Fishbourne
- 85 Flatroppers Wood
- 80 Fore Wood (Crowhurst)
- 67 Friston Forest
- 61 Glyned Levels
- 79 Glyned Gap
- 66 Hodcombe
- 52 Hollingbury Wild Park
- 75 Hoole Level
- 77 Horse Eye Level
- 13 Iping Common
- 64 Isle of Thorns
- 91 Jury's Gap
- 15 Kinley Vale
- 25 Knapp Lake
- 73 Langney Point
- 42 Lavington Common
- 60 Lewes Brooks
- 46 Lullingstone Heath
- 23 Lurgashall
- 29 Lychpole Hill
- 38 Mens, The
- 91 Midmps
- 52 Moulscocomb
- 72 Nap Wood
- 58 Newhaven Tide Mills
- 50 Newmarket Hill
- 88 Northpoint Gravel Pit
- 33 Paddockhurst Park
- TQ91/92
- TQ30
- TQ40
- TQ53
- TQ30
- TR01
- TQ02
- TQ10
- SU92
- TQ50
- TQ40
- SU91
- TQ60
- TQ12
- TQ21
- SU81
- TQ91
- TQ43
- SU82
- TQ60
- TQ30
- TQ30
- TQ39
- TQ70
- TQ70
- TQ40/41
- TQ40/41/42/62
- TQ01/SU91/92/82
- TQ82/92
- TQ01
- TQ20/10/11/21/12
- TQ00/01/02
- TV59/TQ50/51
- 92 R. Cuckmere
- 18 R. Arun
- TQ82
- TQ70/71
- TQ91/92
- SU92
- SZ79
- TQ91/92
- TQ11
- TQ22
- TQ22
- TQ11
- TQ50
- TQ31
- 81 Pagham Lagoon
- 10 Pagham
- 79 Peabham
- TQ70/71
- TQ81/91
- TQ60
- SU70
- TQ71/81
- TQ20/10/11/21/12
- TQ00/01/02
- 92 R. Cuckmere
- 59 R. Ouse
- 93 R. Rother (East)
- 34 R. Rother (West)
- 86 Rother Levels
- 87 Rye Harbour LNR/SSSI
- TQ82/92
- TQ01
- TQ23
- TQ70
- TR01
- TV49/59
- SZ89
- SZ89
- TV59
- SZ89
- TV59
- TQ30
- SU71
- SU70
- TQ33
- TQ01
- TQ33
- 33 Wakehurst Place
- 17 Waltham Brooks Reservoir
- 57 Weir Wood Reservoir
- 86 Wet Level
- 65 Whitbread Hollow
- 20 Widelwater
- 41 Woolbeding Common
- SU82
- TQ23/33

Please note that places listed above are not necessarily of public access. Map compiled and drawn by M. J. Helps

- 8 Pagham Harbour
- 10 Pagham Lagoon
- 79 Peabham
- TQ70/71
- TQ81/91
- TQ60
- SU70
- TQ71/81
- TQ20/10/11/21/12
- TQ00/01/02
- 92 R. Cuckmere
- 18 R. Arun
- TQ82
- TQ70/71
- TQ91/92
- SU92
- SZ79
- TQ91/92
- TQ11
- TQ22
- TQ22
- TQ11
- TQ50
- TQ31
- 81 Pagham Lagoon
- 10 Pagham
- 79 Peabham
- TQ70/71
- TQ81/91
- TQ60
- SU70
- TQ71/81
- TQ20/10/11/21/12
- TQ00/01/02
- 92 R. Cuckmere
- 59 R. Ouse
- 93 R. Rother (East)
- 34 R. Rother (West)
- 86 Rother Levels
- 87 Rye Harbour LNR/SSSI
- TQ82/92
- TQ01
- TQ23
- TQ70
- TR01
- TV49/59
- SZ89
- SZ89
- TV59
- SZ89
- TV59
- TQ30
- SU71
- SU70
- TQ33
- TQ01
- TQ33
- 33 Wakehurst Place
- 17 Waltham Brooks Reservoir
- 57 Weir Wood Reservoir
- 86 Wet Level
- 65 Whitbread Hollow
- 20 Widelwater
- 41 Woolbeding Common
- SU82
- TQ23/33

Localities most frequently mentioned in the text. See alphabetic index below.



280. **TAWNY OWL** (*Sirix aluco*):—Records are tabulated as follows:

Year	Breeding Season			Breeding Success		
	Known pairs	Probable pairs	Total sites present	Young raised	No. pairs successful	Winter birds
1987	15	25	16	19	8	17
1988	32	11	42	41	25	27

Apropos the 1987 Report, where concern was expressed regarding an apparent decline, it is pleasing to record a significant upturn for 1988 when the number of total sites was the highest attained since 1984 and the number of young raised was the greatest recorded. The figures also lend credence to the opinions of two respected observers in the Weald who attributed the decline to an abundance of birds passing unrecorded. This may not hold good, however, for other areas and all records would be appreciated. On Thorney, CBC recorded two birds taking moths from a night trap in company with Pipistrelle and Noctule bats. Two pairs used owl boxes successfully and there were 12 urban records. Two or more pairs raised young at St Mary's Farm (University of Sussex), the Mens Wood, Weir Wood Res. and Parham.

281. **LONG-EARED OWL** (*Asio otus*):—Fewer than last year were recorded wintering as follows:

No. of birds	Breeding Season					
	Jan.	Feb.	Mar.	Oct.	Nov.	Dec.
.....	5	2	3	—	3	2
No. of sites	4	2	2	—	2	1

In the breeding season young were heard calling from a nest in the east of the county, the first confirmed breeding record for Sussex since 1983. In addition, a single bird was recorded in suitable nesting habitat on 27 and 30 May.

The only migrant was an exhausted bird at Hollingbury Camp on 19 Sept. (IJW).

282. **SHORT-EARED OWL** (*A. flammeus*):—A poor early part of the year but the numbers later in the year were the highest since 1982. The approximate monthly totals were:

Jan.	Breeding Season					
	Feb.	Mar.	Apr.	May	Aug.	Sept.
12	9	7	9	1	8	15
						27
						29+

The last recorded in spring was a very late bird at Sidlesham Ferry on 10 May. In autumn there was 1 at Thorney Island on 28 Aug. In Nov-Dec. the highest numbers recorded were on ungrazed grassland at Pulborough Brooks where at least 10 and possibly as many as 15 were present.

284. **NIGHTJAR** (*Caprimulgus europaeus*):—None were reported away from the breeding localities during spring, the first recorded being in Ashdown Forest on 6 May.

A total of 62 territories were located during the breeding season, 41 in West Sussex (29 in 1987) and 21 in East Sussex (28 in 1987).

Last recorded at West Kingston on 26-27 Aug.

289. **SWIFT** (*Apus apus*):—First recorded on 16 Apr. at Sidlesham, on 18th in the Lower Cuckmere and on 19th at Chichester GP. Spring arrival was earlier than usual with numerous records in late Apr. including a large influx on 30th when 170 were present at Chichester GP. Passage continued into early May but there were no reports of new arrivals on the coast after 11th indicating an early return to the breeding colonies.

Little information was received for the breeding season although a small colony at Midhurst, where birds had been present for the previous 7 years, was unoccupied.

A large movement was noted in early July with 750 at Beachy Head on 10th, 800 at Rye Hbr the following day with 600 still present on 12th and 500 on 17th. Other concentrations totalling 500 were recorded at Arlington Res. on 22 July, at Broadwater every evening from 30 July to 1 Aug. and at Thorney on 31 July. In Aug. there were 800 at Beachy Head on 6th but no large movements were recorded after this date. A total of 14 were reported in Sept., the last at Selsey on 17th. A single bird at this locality on the exceptional date of 13 Nov. (RP) was the latest record for the county.

293. **KINGFISHER** (*Alcedo atthis*):—Although the first winter period was mild, fewer birds were recorded than in 1987. The totals for Nov-Dec., however, suggest good breeding success. Observations during the winter months were as follows:

No. of birds	Breeding Season		
	Jan.	Feb.	Nov. Dec.
.....	13	12	24
No. of inland sites	9	5	9
No. of coastal sites	3	5	9

Five pairs bred or probably attempted to do so and birds were present at 8 other sites in the breeding season.

295. **BEE-EATER** (*Merops apiaster*):—One at Beachy Head on 1 Aug. (DC). This record has been accepted by *British Birds* and brings the county total (including 7 young raised in 1955) to 35. Birds have been seen at Beachy Head in 6 of the last 8 years, all records in recent years falling between 25 May-19 Aug.

297. **HOOPOE** (*Upupa epops*):—Five were recorded, all in spring, a slightly below average showing. On 16 Apr. one was seen in a West Wittering garden (MJS) while one present at Hollingbury Camp on 20th-21st (GLC *et al.*) was appreciated by many. On 26 Apr. one was photographed at Ifield Pond (*per JRH*) with singles seen in Eastbourne on 6 May (Mrs Colledge) and at Hope Gap on 28 May (LR).

298. **WRYNECK** (*Jynx torquilla*):—A below-average year with one record in late spring, at Dover Woods on 20 May (DIS) and 9 seen in autumn, 4 being in the Beachy Head area. On 10 Sept. one was present at Cuckmere Haven (LJW, PJW) while another was found at Belle Tout (GG). These were soon followed by singles at Littlehampton GC on 13th (ASC), Whitbread Hollow on 17th (AJG), near East Grinstead on 17-18th (MRL), in a Lewes garden on 18th (SL), at Cissbury on 20th (BFF) and at Birling Gap on 25th (RJJ, MEMd). A late individual was seen at Belle Tout on 15-16 Oct. (CEH, BDJ, PJ *et al.*).

300. **GREEN WOODPECKER** (*Picus viridis*):—The many records received suggest that this species remains widespread throughout the county. Only two counts were received i.e. 5 pairs on Pippingford Park (200 ha) and 2 pairs at Cattlestone Farm, West Chiltington (60 ha). More counts from well-defined areas and information on breeding success will be most welcome.

301. **GREAT SPOTTED WOODPECKER** (*Dendrocopos major*):—Continues to be widespread throughout the county, although some observers believe that numbers have been reduced over the last 2-3 years. In the breeding season there were 11 pairs in Pippingford Park (200 ha) and 3 pairs at both Chelwood Vachery (50 ha) and Cattlestone Farm, West Chiltington (60 ha). A pair at Balcombe raised 4 young to flying but one was killed on a road and another flew into wires. On 30 May at Ambersham Common 1 was pursued by a Sparrowhawk but evaded capture. The species was reported as regular at Whitbread Hollow throughout the autumn but singles at Seaford Head on 11 Sept., Cuckmere Haven on 16 Sept. and at the Crumbles on 26 Oct. may have been immigrants.

303. **LESSER SPOTTED WOODPECKER** (*D. minor*):—In the breeding season records were received for 32 localities but breeding was proved at only 4 of these; a survey of Pippingford Park (200 ha) found only one pair. Records were received for another 18 localities at other seasons. In Nov. one made regular visits to a fat basket at Muntham Park, Findon.

310. **WOODLARK** (*Lullula arborea*):—In Feb. up to 3 were recorded at a possible wintering site in the west of the county.

In the breeding season there was a welcome upsurge in records with pairs present at 4 localities in West Sussex. Breeding was proved at one site where 4 eggs were found on 2 Apr.

Systematic Counts of breeding pairs or territorial mates

	Granley's Farm, copple woodland/pasture (44.6 ha)	Kingley Vale (R W)* yew/fish woodland (117.9 ha)	Moultscroomb, Hollingbury Wood/Golf Course (MLC et al.) mixed scrub, woodland (280 ha)	Stinfold Railway Line NR (SWMH)* copses, scrub (2.25 km transect)	Warnham NR (SM) lake, coniferous and deciduous woodland (40.5 ha)	West Chiltington (FWD) Wealden farm with copses (60 ha)	West Dean Woods (RW)* hazel copple (12.1 ha)
Turtle Dove	—	2	—	—	—	1	1
Skylark	2	1	4	—	—	1	—
Wren	27	32	83	21	5	—	10
Duncock	8	18	43	2	1	10	2
Robin	23	59	104	24	5	—	5
Blackbird	22	53	130	25	1	—	4
Song Thrush	4	6	17	4	2	—	4
Mistle Thrush	2	—	13	2	2	1	—
Sedge Warbler	—	—	—	—	1	—	—
Reed Warbler	—	—	—	10	—	—	—
Lesser Whitethroat	2	4	6	2	—	2	—
Whitethroat	1	9	12	—	—	4	1
Garden Warbler	4	5	8	3	1	4	2
Blackcap	6	14	17	9	1	5	5
Chiffchaff	9	11	10	4	5	3	3
Willow Warbler	6	36	27	4	4	7	16
Goldcrest	—	5	—	5	—	2	1
Spotted Flycatcher	1	—	2	—	—	3	—
Long-tailed Tit	2	2	8	6	3	4	1
Marsh Tit	2	8	—	2	1	—	3
Blue Tit	27	2	56	22	4	—	5
Great Tit	15	22	25	11	2	—	8
Treecreeper	3	—	—	8	2	—	—
Jay	2	2	2	5	—	9	1
Magnie	5	6	26	4	—	9	—
Chaffinch	33	58	64	27	—	—	11
Linnet	2	—	7	—	—	—	—
Greenfinch	4	1	18	1	3	—	—
Bullfinch	3	13	2	5	—	3	—
Yellowhammer	3	14	10	1	—	7	—

NOTE: The counts marked * are based on Common Birds' Censuses, counts in remaining columns other than CBC. A dash does not necessarily mean the species was absent.

and 4 fledged young on 29th but not at the remainder. In addition, there were singing males at 5 other localities. In Sept. up to 3 were recorded at one of the sites where a pair was present earlier in the year while in Oct. and early Nov. up to 6 were seen at 3 localities nearby.

On the coast there was 1 N at Brighton Marina on 30 Apr. (CB) and singles at Beachy Head on 19 Oct. (GG) and Littlehampton West Beach on 21 Oct. (RJKL, MAAW).

311. **SKYLARK (*Alauda arvensis*)**.—A flock of 120 at Pevensey Levels on 12 Jan. was considerably larger than the few other concentrations reported early in the year.

Counts of breeding birds in defined areas are given on page 52. Elsewhere, an incomplete survey of Thorney Deepes located 37 pairs and there were 8 territories on Pilsley Island.

In autumn there were 100 W at Combe Haven on 24 Oct. and flocks of 100 at Beachy Head on 17 Oct. and 500 at Cissbury on 6 Nov.

313. **SAND MARTIN (*Riparia riparia*)**.—First recorded on 20 Mar. at Church Norton and on 23rd at Chichester GP and Pett Level. Spring passage was heavier than in recent years with maximum counts in Apr. of 50 at Chichester GP on 9th, 120 at Barcombe Res. on 16th, 50 at Waltham Brooks on 21st and 100 at Rye Hbr on 23rd, increasing to 250 the following day.

Counts received for 8 breeding colonies indicated an overall recovery in the species as follows:

Site	No. of occupied burrows/pairs	
	1985	1986
Coates	28-40	29-60
East Guideford	10-15	10-15
Head End	10-18	7-17
Pendean	26	26-40
Rye Hbr	1	0
Sandgate Park	16-30	23-40
Stedham	0	0
West Heath Common	3	10
		70
		75

Autumn passage was again well marked albeit on a smaller scale than in 1987. At Rye Hbr 100 were present on 12 July whilst on the 16th there were 300 at Beachy Head. A roost at Thorney Island held 300 birds from 18-24th and at Church Norton there were 200 on 20th. The peak count for Aug. was 300-500 at Rye Hbr from 21st whilst in early Sept. up to 300 roosted in reedbeds at Combe Haven. At least 200 were still present at Rye Hbr on 28 Sept. The last for the year were 2 at Pulborough Brooks on 23 Oct.

314. **SWALLOW (*Hirundo rustica*)**.—First recorded on 22 Mar. at Arlington Res. and on 23rd at Pett Level and Rye Hbr, an early arrival. Passage continued throughout Apr. into May but no large numbers were reported, the peak for the spring being a mere 50 at Chichester GP and Barcombe Res. on 9 and 19 Apr. respectively. Regular observations at Worthing recorded 42 N in Apr. and 279 N in May.

At Thorney Island 3 pairs successfully fledged young as did 12-15 pairs at the Chalk Pit Museum, Houghton.

Autumn passage was most pronounced in Sept. with peak counts of 13000 roosting in reedbeds at Combe Haven and 1000 SE at Ashcombe Bottom on 5th, 50000 roosting at Pett Level and 1000 roosting at Thorney Island on 7th, 1000 at Waltham Brooks on 18th and 20000 W at Beachy Head on 29th. In Oct. there were 6000 roosting at Combe Haven and 3000 E at Cuckmere Haven on 1st and 2000 at Beachy Head on 17th. A total of about 111 birds were reported in Nov., the peak count being 70 SE in the Lower Cuckmere Valley on 5th. The last recorded were 2 at this locality on 19th.

316. **HOUSE MARTIN (*Delichon urbica*)**.—One at Brighton on 3 Mar. (PS) was probably an overwintering bird rather than a new arrival. Two were recorded at Beachy Head on 3 Apr. but there were no further records until 9th. A number of observers

commented on the low numbers present in spring, the peak counts being 50 at Barcombe Res. on 19 Apr., 118 N at Cuckmere Haven on 7 May and 100 and 150 at Warnham MP on 9 and 19 May respectively. Regular observations at Worthing recorded only 5 N in Apr. and 41 N in May.

Very little information for the breeding season was received. At Maynards Green, where 18 pairs nested in 1987, 22 pairs were present. Ten first broods, 8 second broods and one third brood were successful but two first broods failed. At the regular colony at Heathfield a further increase to 12 pairs was noted and at Hurst Green 2 nests contained a total of 11 pulli. A colony at Vine Hall School comprised 42 nests.

As with Swallow autumn passage was most pronounced in Sept. with peak counts of 5000 W at Hollingbury Camp and 5000 NW at Thorney Island on 13th, 1500 at Hove on 17th, 1000 at Beachy Head on 18th and 2000 at Moulsecomb Wild Park and 1000 SW at Broadwater on 30th. Heavy passage continued into Oct. with 6200 E in the Lower Cuckmere Valley on 1st and a further 1300 E and 1000 E at this locality on 2nd and 8th respectively. Elsewhere there were 1000 at Combe Haven on 3rd, 1500 E at Worthing on 15th and 1000 at Beachy Head on 17th. In Nov. there were 20 E in the Lower Cuckmere Valley on 5th and 41 E the following day. Elsewhere a total of about 32 birds were reported during the month, the last being singles at Eastbourne and Littlehampton on 19th.

317. **RICHARD'S PIPIT** (*Anthus novaeseelandiae*):—One recorded at Combe Haven on 12 Sept. (KMJ) was only the 4th record since 1981.

318. **TAWNY PIPIT** (*A. campestris*):—Seven were recorded during the year, an average showing. One found at Icklesham on 14 May (DJP, SJRR, JW) was the 5th spring record. In autumn one flew NE at Combe Haven on 29 Aug. (KMJ); an adult was seen at Littlehampton GC on 6 Sept. (RJLK) and on 7th 2 adults were present at Pilsley (CBC) and 1 flew W at Combe Haven (KMJ); and finally an adult was seen at Beachy Head on 22 Sept. (DC, PDL).

320. **TREE PIPIT** (*A. trivialis*):—First recorded on territory at Woolbeding Common on 1 Apr. with only 24 migrants reported in spring.

Atlas counts produced more breeding records than normal with 131 territories located, of which 93 were in Ashdown Forest.

On autumn passage 215 were recorded, the maximum 30 at Beachy Head on 29 Aug. The last for the year were 2 at Combe Haven on 3 Oct.

322. **MEADOW PIPIT** (*A. pratensis*):—In the early months the only significant concentrations reported were 25 at Sidlesham Ferry on 20 Feb., 70 at Ambersham Common and 25 at Lavington Common on 21 Feb., 20 at Horse Eye Level on 2 Mar. and 20 at Woolbeding Common on 20 Mar.

At Worthing, where there were 577 N during Mar., the largest movement recorded was 500 N on 16th. Further heavy passage was observed at Rye Hbr on 18th while on 26th there were 500 N at Goring in 3 hrs, 100 N at Bexhill in 3 hrs and 56 N at Church Norton in 1 hr. An influx of 70 was noted at Bewbush on 27th.

During the breeding season, an incomplete survey of Thorney Deepes located 24 pairs and there were also 15 pairs on Pulborough Brooks.

Very heavy visible migration was noted on 29-30 Sept. when, for example, there was an estimated 10 W per minute for 2 hrs at Ditchling Beacon. Passage on a smaller scale was also noted on 16 Oct. when there were 100 E in 1½ hrs at Worthing, at least 200 E at Climping and 60 feeding on West Hove GC. At Beachy Head there were 300 on 17th and 200 on 20th.

323. **RED-THROATED PIPIT** (*A. cervinus*):—1984:—One at Combe Haven on 28 Oct. (KMJ, SCR) has been accepted by *British Birds*, is the 4th county record and the first since 1973. All previous records were also in Oct., between 6-20th.

324a. **ROCK PIPIT** (*A. petrosus*):—The largest concentrations reported were 16 in the Lower Cuckmere Valley on 22 Oct. with 12 there in Sept. and Dec., at least 14 at Brighton Marina on 27 Dec. and 10 at Climping on 30 Oct.

The only breeding record received was of a pair at Cuckmere Haven which raised 3 young. One was recorded away from breeding habitat at Littlehampton West Beach on the unusual date of 4 June.

324b. **WATER PIPIT** (*A. spinoletta*):—One at Littlehampton West Beach on 2 Feb. was possibly that recorded at Climping on 29 Feb. (RJLK). Elsewhere there were singles at Horse Eye Level on 7 Feb. (CB, TMB), Pett Pools on 23 Apr. (CHD) and Pagham Hbr on 25 Oct. (JVS). At Combe Haven numbers were higher than in 1987 with at least 6 present in Jan., 6-8 in Feb., 4-5 in Mar., 2 on 6 Apr. and 1 on 7th, 1 on 1 Oct. with up to 4 later in the month, 5-6 in Nov. and 10-12 in Dec. (all KMJ).

325. **YELLOW WAGTAIL** (*Motacilla flava*):—First recorded were 2 at Cuckmere Haven on the early date of 26 Mar. During the first week of Apr. there were further reports from Beachy Head, Combe Haven, Pett Level and Rye Hbr, where the species was widespread and numerous from 14th. At Pett Level there were 15 on 9 Apr. and a peak of 45 on 14th while at Arlington Res. there were 20 on 24th. At Combe Haven birds passing overhead totalled 120 N during the month.

In the breeding season there were 38 pairs at Rye Hbr, 5-6 pairs at Pulborough Brooks, 3-4 pairs at Thorney Deepes and single pairs in the Lower Cuckmere Valley and at Amberley. A few scattered records amounting to 8 pairs were received from Pevensey Levels, where 119 pairs were recorded in the 1987 survey (SxBR 40:52). Other birds, possibly on territory, were present at Bodiam, Bracklesham and the Upper Adur Levels.

On 16 July there were 30 at Pevensey Bridge Level. Heavy passage was noted in late Aug. with 70 E at Cuckmere Haven and 50 over Combe Haven on 28th and 75 on the Adur Levels the following day. Concentrations in the first half of Sept. included 135 at Church Norton, up to 80 at Beachy Head, 70 roosting at Thorney Island, 60 at Falmer, 40 at Broomhill Level, Rye Hbr and Waltham Brooks and 35 at Arlington Res. At least 700 were noted at Combe Haven in this period, mostly flying S, including over 300 at dusk on 4th. During the second half of the month the largest concentrations reported were 20 at Cissbury on 20th and 15 W at Littlehampton West Beach on 30th. In Oct. about 27 were recorded including 2 at Beachy Head on 22nd and 1 at Climping and 2 in the Lower Cuckmere Valley on 29th. Nov. records were of 2 at Littlehampton GC on 2nd and 1 W at Beachy Head on 6th.

A male showing the characteristics of the Blue-headed race *M.f. flava* and perhaps paired with a female *flavissima* was present at Pevensey Bridge Level from 30 Apr. into July. Elsewhere, there were single males at Pett Level on 15 and 18 Apr. and a different bird on 22nd, at Arlington Res. on 24 Apr. and at Rye Hbr on 8 Aug.

327. **GREY WAGTAIL** (*M. cinerea*):—In Jan. and Feb. records were received from only 6 coastal and 10 inland sites. Coastal observers reported the spring migration to be very poor.

For the third year there was no breeding at Woods Mill, nevertheless there was a welcome increase in breeding season records elsewhere with breeding pairs reported from 38 sites. Post-breeding dispersal was first noted at Darwell Res. on 1 Aug. and birds appeared at the coast at Thorney Island and Pagham Hbr on 23 and 26 Aug. respectively. At Cissbury passage noted between 30 Aug. and 24 Sept. with a max. of 5 on 17 Sept. Seven flew NE over Shoreham on 17 Sept., 2 N at Glynde Reach and Chalvington on 18 Sept. and 6 came in off the sea at Church Norton on 19 Sept. There were 15 at Whitbread Hollow on 25 Sept.

In Nov. and Dec. records were received from 28 inland and 6 coastal localities.

328. **PIED WAGTAIL** (*M. alba*):—Counts for the early months included 70 at Widewater, Lancing in Jan., 70 at Thorney Island and 36 at Small Dole in Feb. and 200 roosting in reeds at Shoreham in Mar.

In early Sept. up to 81 were recorded at Bewl Water and a roost of 200 at Gatwick. Heavy visible migration was noted on several days in late Sept. and Oct. with, for example,

250 mostly W at Beachy Head on 29 Sept., a total of 258 E at Littlehampton West Beach between 14-19 Oct. and 44 E in the Lower Cuckmere Valley on 15 Oct. At Worthing there were 540 E at dusk on 16 Oct. and 292 E the following day although these were probably birds going to roost. Records for the remainder of the year included a peak of 132 at a reed bed roost at Bognor Regis on 28 Nov. and over 100 feeding in a crop field near Petworth on 11 Dec.

A single bird showing the characteristics of the White Wagtail *M. a. alba* was recorded at Pett Level on 17 Mar., an early date, followed by 5 at Cuckmere Haven on 26th, 1 at Rye Hbr on 27th and a further 12 on the coast in Apr. A male in the Lower Cuckmere Valley from 11 June to 30 July was accompanied by 2 young in the latter part of its stay, suggesting probable breeding nearby (WJMS). In autumn, birds considered to be of this race were 1 at Paghams Hbr on 29 Sept., 4 at Castle Hill and 4 E at Littlehampton West Beach on 14 Oct. and 2 at the latter site on 29th.

329. **WAXWING** (*Bombusilla garrulus*):—Despite large numbers elsewhere in Britain only 5 were recorded in the county. Even so it was still the best year since 1976, when 12 were seen, with just 10 records during 1977-87. One was watched briefly at Paghams Hbr on 27 Nov. (BFF, RAI) with 1-2 seen on 3 dates in the Pett area between 8-24 Dec. (CHD) and 2 at Selmeston on 10 and 18 Dec. (DC, JFC *et al.*)

331. **WREN** (*Troglodytes troglodytes*):—Counts of breeding birds in defined areas are given on page 52. In addition there were 33 pairs at Thorney Deepes. In autumn a total of 100 were ringed at Whitbread Hollow, Beachy Head, a good total for this site, where 75 were recorded on 20 Oct. During the winter months at least 200 were present at Combe Haven.

332. **DUNNOCK** (*Prunella modularis*):—Counts of breeding birds in defined areas are given on page 52. In addition there were 22 pairs at Thorney Deepes. A total of 85 birds were ringed at Whitbread Hollow, Beachy Head in autumn.

336. **ROBIN** (*Erithacus rubecula*):—Counts of breeding birds in defined areas are given on page 52. In autumn a total of 109 were ringed at Whitbread Hollow, Beachy Head, where peak numbers in Oct. were 100 on 18th and 40 on 17th and 20th. At Darwell Res. 43 were recorded on 18 Sept. and 36 on 21 Oct.

338. **NIGHTINGALE** (*Luscinia megarhynchos*):—An exceptionally early arrival was noted with singles at Littlehampton West Beach on 21 Mar. (RJLK) and at the Severals, Church Norton on 29 Mar. (PEB). Both these dates are earlier than any previous county record, and Hudson in *Early and Late Dates for Summer Migrants* (BTO Guide 15) quotes only two national records before 21 Mar. More typical were singing males at Bewl Water on 12 Apr. and at Ardingly Res. on 14th.

During the breeding season 124 singing males were recorded from 59 tetrads in 28 different 10 km squares. Autumn records of this secretive species were more widespread than in most years but as usual most were recorded at Beachy Head where the maximum was on 13 Aug. and the last noted on 10 Sept.

340. **BLUETHROAT** (*L. svecica*):—A female was seen at Icklesham on 26 May (SJRR). There are just 6 records for the 10 years 1979-88 compared with 35 in the previous 10 years and 37 in the 10 years prior to that. Three of the last 4 recorded have been between 17-26 May.

342. **BLACK REDSTART** (*Phoenicurus ochruros*):—The quietest spring for many years was followed by good numbers in autumn, the approximate monthly totals, excluding breeding birds, being:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
3	2	6	30	3	—	—	—	3	105	12	2

The individual present at Climping in Dec. 1987 (SxBR 40:54) was recorded there until 9 Mar. while there were isolated sightings at Pett on 17 Jan., Selsey Bill on 28 Jan. and Southwick Power Station on 7 Feb. and 6 Mar. Singles at Newhaven on 5 Mar. and Beachy Head on 6th may have been early migrants but no other arrivals were noted until singles at Seaford on 19 Mar. and Langney Point on 31st. Scattered individuals were recorded, mainly from along the coast, into late April with 2 at Beachy Head on 1 Apr., 2 at Brighton Marina on 10th, 2 at Church Norton on 11th and 2 at Rye Hbr on 14th. During 25-27th singles were seen at Horsham and Rye Hbr while 1-2 were recorded at Beachy Head. May records came from Littlehampton GC on 11th, Rye Hbr on 13th and E Brighton GC on 16th.

Two pairs were reported during the breeding season; at least one young was fledged at a site in the east of the county while two were watched being fed at a site in the north of the county.

Returning birds were recorded at Shoreham Airport on 10 Sept., Cuckmere Haven on 28th and at Thorney on 29 Sept. and 3 Oct. None were then reported until mid Oct. with singles at Beachy Head on 13th and Paghams Hbr and Kingston on 14th. Five were recorded in the county on 15th and 7 on 16th with 4 at Selsey Bill on 18th, 4 at E Brighton GC and 2 in Coldean on 19th and 4 at Beachy Head and 3 elsewhere on 20th. The main arrival of the autumn was noted from 22-25 Oct. when over 50 were recorded, including 6 at Hollingbury on 22nd, 7 at Combe Haven on 24th and 7 on E Brighton GC on 25th. There were 5 at Beachy Head on 28th and 3 at Littlehampton GC on 29 Oct. but all subsequent records involved single birds. Most Nov. records came from the coast, 1 in Lewes on 19th being the exception; the last records for the year were at Southwick Power Station on 20 Nov., Beachy Head on 10 Dec. and Cuckmere Haven on 16th.

343. **REDSTART** (*P. phoenicurus*):—First recorded on 6 Apr. at Cuckmere Haven, a day later than in 1987. A total of 37 were noted on spring passage including an influx of 18 between 15-17 Apr.

Atlas work produced a marked increase in breeding records with a total of 72 singing males located (46 in 1987). Of these 61 were in Ashdown Forest.

A total of 192 were recorded in autumn with the maximum 18 at Beachy Head on 8 Sept. Three were recorded in Nov., the last at Pett Level on 9th.

344. **WHINCHAT** (*Saxicola rubetra*):—Recorded in fewer numbers than 1987, the approximate monthly totals being:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
—	—	—	21	36	1	2	130	350	28	1	—

First recorded on 3 Apr. at Combe Haven, an early date, with singles at Pett on 8th and in Hassocks on 9th. Records were more widespread from 14th, but all sightings involved single birds with the exception of 3 at Cuckmere Haven on 16th, while one at Littlehampton GC on 30 Apr. remained to 5 May. Most May records fell in the second week with 27 seen between 8-15th including 3 at Hollingbury on 8th, 3 at Sidlesham Ferry and 2 on Pevensey Levels on 9th and 3 at Selsey Bill and 2 at Sidlesham Ferry on 13th. Two were seen at Sidlesham Ferry and 3 elsewhere on 21 May with 1 on E Brighton GC on 26th while records of 1 at Cuckmere Haven on 18 June and 2 at Beachy Head on 3 July were unusual.

The first returning birds were recorded in early Aug., with singles at Thorney on 4th, Rye Hbr, Beachy Head and Cuckmere Haven from 6th and Falmer and Amberley on 7th, but there were only 2 subsequent sightings before 4 at Beachy Head on 18th heralded a more general arrival. Peak autumn counts included 15 at Pett on 20 Aug., 10 at Rye Hbr on 27th, 10 at Combe Haven on 29th, 20 at Cissbury on 31st, 15 at Castle Hill on 6 Sept., 20 at Combe Haven and 25 at Thorney on 7th, 10 at E Brighton GC on 16th, 22 at Beachy Head on 18th and 10 at Cuckmere Haven on 22 Sept. Numbers dropped considerably in Oct., more notable records including 3 at Combe Haven on 3rd, 2 on the Lewes Brooks on 10th and 16th and singles at Thorney on 25th and at Cuckmere Haven on 29th. Last of the year was seen at Beachy Head on 5 Nov.

345. **STONECHAT** (*S. torquata*):—A much better year but with only 14 reported in Jan., 15 in Feb. and 14 in Mar.

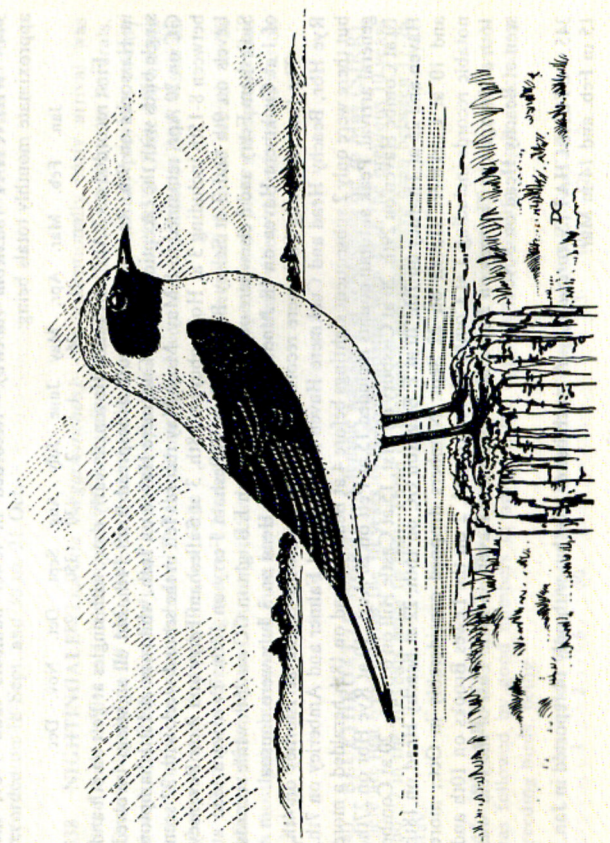
A total of 32 pairs were reported during the breeding season (19 in 1987) showing how rapidly numbers can recover following a mild winter. 18 of these pairs were in Ashdown Forest and 9 at Beachy Head. At the latter site 16 nests were found and 50 pulli ringed as part of a continuing study of the species.

In autumn 96 were recorded, the maximum being 14 at Beachy Head on 20 Oct. Reports for the end of the year totalled 25 in Nov. and 54 in Dec. of which 10 were at Combe Haven. Four pairs were still on breeding territory in Dec.

346. WHEATEAR (*Oenanthe oenanthe*):—One at Newhaven Tidemills on 6 Mar. was the first spring record and slightly earlier than usual, but none were then seen before 19th when 8 were present on E Brighton GC and singles at Church Norton, Littlehampton GC and Cuckmere Haven. Reports were then more widespread with 11 recorded at 6 sites along the coast on 20th and 6 at Newmarket Hill and 9 elsewhere on 21st. Peak March counts included 9 at Littlehampton GC on 23rd, 28 at Paghham Hbr on 29th and 7 at Selsey Bill and 9 at Beachy Head on 31st. In April 16 were counted at Selsey Bill on 3rd while 32 there and 37 at Climping/Littlehampton GC on 9th formed the bulk of the largest arrival of a generally quiet spring. Other notable occurrences included 9 at Worthing on 16th, 24 at Langney Point on 17th April, 10 at Thorney on 18th, 6 at Hollingbury and 7 at Newmarket Hill on 22nd and 5 at Beachy Head on 24th. Few migrants were seen in May, but included birds considered to be of the Greenland race *O.o. leucorrhoa* at Cuckmere Haven on 7th and 14th and at Crawley on 22nd.

During the breeding season 11-13 pairs bred at Rye Hbr, success was 'good' with the first young noted on 2 June and several second broods. A pair was successful at Langney Point while another was present at Newhaven Tidemills during the summer. A male singing at Pett in late May was not seen subsequently.

A juvenile was recorded at Cuckmere Haven on 10 July while 2 at Thorney on 18th were probably of more distant origin. Return passage was generally rather quiet, the first notable arrival being on 6 Aug. when 5 were seen at Littlehampton GC, 6 at Cuckmere Haven and 9 elsewhere. Numbers did not increase significantly until mid Aug. with 14 recorded at Cuckmere Haven on 13th, 32 at Suddlescombe on 18th, 43 at Thorney on 22nd and 18 in Newmarket Bottom on 23rd. Notable records in Sept. included 23 at Castle Hill on 3rd, 20 at Broomhill Level on 4th, 50 at Climping/Littlehampton GC on 9th, 25 at Sidlesham Ferry on



10th, 35 at Littlehampton GC on 22nd and 20 at Rye Hbr on 28th. Small numbers were widespread in Oct., mainly along the coast and adjacent downland, with a total of about 90 individuals reported and a peak of 6 seen at Climping and 17 on E Brighton GC on 20th. There were 7 Nov. records, the last of the year being at Chidham on 11th and Prinsted and Beachy Head on 12th.

348. BLACK-EARED WHEATEAR (*O. hispanica*):—A male showing the characteristics of the nominate race *hispanica* on the Kent/Sussex border at Bewl Water on 5 May (RBs, PCB *et al.*) has been accepted by *British Birds*. It is the second county record, coming hot on the heels of the first, at Beachy Head on 31 May 1987. Careful scrutiny of large-scale maps convinced most observers that they had seen the bird in the county.



359. RING OUZEL (*Turdus torquatus*):—1971: A pair seen on Grafham Down on 5 June (RJF) is the only June record in the county to date. Jan. and July are the only months in which the species has not been recorded in the county.

1988:—Recorded in higher numbers than in any previous year in both spring and autumn, although better coverage in 1966, 1967 or 1976, when larger flocks were seen, might well have produced more. Approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
			1	43	1	1	37	425	7		

First recorded at Sidlesham Ferry on 27 Mar.; none were then reported until singles were seen at Selsey Bill on 9 Apr. and Kingston Hill on 12th. Between 13-17 Apr. 20 were recorded, mainly on the Downs between Brighton and Lewes and including an exceptional spring flock of 9 at Newmarket Hill on 15th. At nearby Castle Hill 8 were seen on 23rd with a further 13 between then and 30 Apr., again mainly on the Downs E of Brighton. One present at Beachy Head on 7-8 May was the last to be reported in spring.

In autumn 2 were recorded at Plumpton on 7 Sept., closely followed by 2 at Newmarket Hill on 9th and 1-2 at each of Cissbury, Kingston Hill and Beachy Head on 11th. Between 16-19 Sept. 12 were reported, with 4 at Beachy Head on 25th and 7 at Cold Coombes on 29th being of note. October started well with 11 recorded at Cold Coombes, 7 at Kingston Hill and 3 at Castle Hill on 2nd (all by the same observer), but only 6 were then reported before a major arrival on 12th when over 90 were seen throughout the county, including 46 at Hollingbury Camp and 20 at Beachy Head. Good numbers were recorded during the next 8

days, more notable records being 20 at Kingston Hill and 11 at Cold Coombes on 13th, 40 at Cissbury, 30 at Kingston Hill and 30 at Beachy Head on 14th, 46 at Cissbury and 16 in the Lower Cuckmere on 15th, singles at Bewl Water and in Burgess Hill on 16th, 75 at Beachy Head on 17th, 50 there on 18th, 15 at Newmarket Hill on 19th and 30 at Beachy Head on 20th. Smaller numbers remained to the end of the month, including 7 at Newmarket Hill on 25th with 5 there on 26th and 3 on 27th, 15 at Beachy Head on 28th, 3 at Kingston Hill and 6 elsewhere on 29th and 2 at Littlehampton GC on 31st. November records included 2 at Beachy Head and 1 at Balsedean on 3rd, the latter present to 5th, 1 at Pett on 6th and 1 lingering to feed on a *Pyracantha* in a Bognor garden from 15th-23rd.

360. **BLACKBIRD** (*T. merula*):—Counts of breeding birds in defined areas are given on page 52. In addition there were 33 pairs at Thorney Deepes. In autumn a total of 69 were ringed at Whitbread Hollow, Beachy Head, where 50 were present on 5 and 13 Nov. Other influxes of presumed migrants included 40 at Castle Hill on 3 Oct., 29 in the Lower Cuckmere Valley on 22 Oct. and 61 there on 12 Nov., 60 at Littlehampton GC on 2 Nov., 176 at Moulsecomb Wild Park on 19 Nov. and 30 at Ashcombe Farm, Lewes on 26 Nov. A garden bird survey in Coldean, Brighton recorded the species in 47 out of 52 weeks, the only absence being the period 28 Aug.-1 Oct. (LEL, RL).

364. **FIELDFARE** (*T. pilaris*):—Flocks of 200 or more were reported from 2 localities in Jan., 5 in Feb., 6 in Mar. and one in Apr. The maximum count during the first winter period was 500 at Barcombe on 13 Mar. The last spring birds were 4 at Ashcombe Bottom and 13 at Pondtail Shaw on 17 and 24 Apr. respectively.

The first recorded in autumn were singles at Church Norton, Cissbury and Pett Level on 4, 11 and 21 Sept. respectively. Although widespread in Oct. the only large concentration reported was 200 at Amberley on 22nd. In Nov. and Dec. flocks of 200 or more were reported from 3 and 2 localities respectively, the maximum count being 700 at Glynde Reach on 13 Nov.

365. **SONG THRUSH** (*T. philomelos*):—Counts of breeding birds in defined areas are given on page 52. In autumn 31 were ringed at Whitbread Hollow, Beachy Head, a total less than that for Ring Ouzel! Influxes of presumed migrants at this site included 15 on 17 Sept., 20 on 18 and 23 Oct. and 15 on 5 Nov. Elsewhere in Oct. there were 15 at Castle Hill on 3rd, 40 at Ashcombe Bottom and 50 at Castle Hill on 15th and 38 in the Lower Cuckmere Valley on 29 Oct.

366. **REDWING** (*T. iliacus*):—Another poor year following that of 1987 with a number of observers commenting on the scarcity of the species in both winter periods. The only large concentrations recorded during Jan-Mar. were 600 at West Chilmington on 3 Feb., declining to 400 the following day, and 300 at Wivelsfield Green on 11 Mar. Heavy nocturnal passage was noted at Brighton on 9-10 Mar., at St. Leonards on 12th and at East Grinstead from 12-14th. The only Apr. records were of up to 20 in the first week of the month at Maynards Green, 5 remaining until 10th, and one at Selsey Bill, also on this date.

In autumn the first recorded was a single bird at Church Norton on 17 Sept. followed by 2 in the Lower Cuckmere Valley on 24th. Although widely reported in Oct. numbers were generally small with peaks for the month of 140 W at Maynards Green on 12th, 60 at Barcombe on 14th, 125 at Glynde Reach on 16th and 70 over Ansty on 17th. Few birds were recorded in Nov-Dec. with 200 at Glynde on 13 Nov. the only large concentration reported. The peak count for Dec. was a mere 100 at Maynards Green on 11th.

367. **MISTLE THRUSH** (*T. viscivorus*):—Counts of breeding birds in defined areas are given on page 52. Notable concentrations included 57 W at Shermanbury Park on 14 Aug., 24 at Combe Haven on 31 Aug. and 65 E at Pulborough Brooks on 23 Oct.

369. **CETTIS WARBLER** (*Certhia cetti*):—One recorded throughout Jan. at a regular site was still present on 3 Mar. Singing males were present at Weir Wood Res. on 28 Apr. (NAD) and at 2 other sites in the west of the county, one remaining until early June. At the other site one was present until 21 June and on two dates 2 were seen chasing each other but breeding was not proved.

In the latter part of the year 1 was heard singing at Sidlesham Ferry on 9 Sept. (BJ) while in the east of the county singles were present at one site on 6 Nov. and 25 Dec.

373. **GRASSHOPPER WARBLER** (*Locustella naevia*):—First recorded on 16 Apr. at both Beachy Head and Thorney Island and at a further 4 localities the following day. Spring passage was very light with just 10 birds recorded.

During the breeding season 24 territories were located (14 in 1987), including 6 at Lullington Heath, 5 at Thorney Deepes and 4 at West Dean Woods.

In autumn a total of 7 were ringed at Beachy Head between 30 July and 4 Sept. with further sight records at this locality of 3 on 3 Sept., 1 on 11th and 2 on 18th. Elsewhere single birds were trapped at Cissbury on 30 Aug. and 17 Sept. with 1 seen there on 28 Aug. The only other autumn records were of 3 at Sidlesham Ferry on 25 Aug., 1-2 at Combe Haven on 6 Sept. and 1 at Hollingbury on 10 Sept.

378. **SEDGE WARBLER** (*Acrocephalus schoenobaenus*):—First recorded on 3 Apr. at Rye Hbr., the earliest since 1981, and on 7th at Pevensy Levels with a more general arrival from 10th.

Following publication of the Sedge Warbler survey results (SxBR 40:81-96), ReK has provided information that an estimated 6 territorial pairs were present in SU90. This would marginally increase the West Sussex total to 304 and the whole county total to 840 pairs.

A substantial increase in the breeding population is indicated by the 71-73 pairs at Thorney Deepes compared with the 34 pairs recorded in the BTO survey. No other sites, however, reported increases although slightly higher numbers were ringed in autumn at Beachy Head and Shoreham Sanctuary. The last recorded was at Combe Haven on 10 Oct.

381. **MARSH WARBLER** (*A. palustris*):—Three singing birds were located at two sites in the county, two birds at one locality being present from 28 May to at least 13 June while one singing at another site in the west of the county on 1 June (DS) but not subsequently was probably a migrant.

382. **REED WARBLER** (*A. scirpaceus*):—First recorded on 11 Apr. at Church Norton. Following publication of the Reed Warbler survey results (SxBR 40:81-96) ReK has provided information that an estimated 100 territorial males were present in SU90 on the Levels, especially near Aidingbourne Rife and Lidsey and Ryebank Rifes. This would increase the West Sussex total to c.1050 territories and the whole county total to c.2850 territories.

Eighty-nine pairs were counted on Thorney Deepes compared with 68 territorial males recorded in the BTO survey.

The last for the year were seen on 23 Oct. with 1 at Cissbury and 2 at Beachy Head.

388. **MELODIOUS WARBLER** (*Hippolais polyglotta*):—One at Rye Hbr on 1 Aug. (ADB, SB, Mrs SB) is only the third (out of 34) to be recorded East of Langney Point, the others being at Winchelsea in June 1977 and Icklesham on 28 July 1987.

389. **DARTFORD WARBLER** (*Sylvia undata*):—At least 9 individuals were recorded, mainly in Oct., but with several staying on in the mild weather to the year's end. On 13 Oct. one was first seen at Thorney where it remained to the end of the year, a second being present from 16-30 Oct. Also on 16th one was seen at Climping (RAI) while one was found at Whitehawk Hill on 21st (NAGL). On 29 Oct. one was trapped at Charleston Reedbed (PJW)

and another appeared at Pagham Hbr (MK *et al.*). At Pagham Hbr 1-2 were reported several times during Nov. and Dec. but were elusive at the best of times (mo). Also in Dec. one was found on Iping Common on 7th, remaining into 1989 (LWO), while one was seen at Weavers Down on 19th (FBT).

391. **SUBALPINE WARBLER** (*S. cantillans*):—A singing male at Beachy Head from 9-13 May (RDM *et al.*) has been accepted by *British Birds* and is the 3rd county record, the previous two being on 17 May 1961 and 22 Apr. 1984.

397. **LESSER WHITETHROAT** (*S. curruca*):—A very early bird was seen and heard at Seaford on 10 Apr.; this compares with an average first arrival date for the county of 18 Apr. over the previous decade. The next were in Charleston Reedbed on 16th and at Thorney Island on 17th. The main arrivals took place from 20 Apr., when there were 5 at Combe Haven, and records from many sites over the next few days.

Breeding season counts included 10 pairs at Combe Haven and 10 pairs on the Deepes at Thorney. Unusually, a pair bred in a town garden at West Worthing. Counts of pairs in defined areas are given on page 52.

Autumn dispersal or passage produced 15 at Chichester GP on 13 Aug. and 8 at Weir Wood on 15th, but as usual most were seen at Beachy Head. In Whitbread Hollow estimates rose from 50 on 21 Aug. to 150 on 27th, with a secondary peak of 100 on 4 Sept., while 70 were reported from Beachy Head as late as 15 Sept. Elsewhere on the eastern Downs 41 were seen at Saddlescombe on 18 Aug. and 43 in Moulsecoomb Wild Park on 3 Sept. The last of three Oct. stragglers was at Beachy Head on 20th, but this was eclipsed by one at Church Norton on 13 Nov. — the second-latest county record.

398. **WHITETHROAT** (*S. communis*):—A male in territory at the Lower Cuckmere by 1 Apr. was exceptionally early, and compares with an average first arrival date for the county of 14 Apr. over the previous decade. The next, at the same site, was not until 12 Apr., with more general reports from 15th onwards.

Notable counts during the breeding season included 16 pairs at Rye LNR, 30 pairs at Combe Haven, and 19 pairs on the Deepes at Thorney, confirming the recent upturn in the species' fortunes. Other counts from defined areas are shown on page 52.

Autumn passage estimates in Whitbread Hollow rose from 50 on 10 Aug. to 80 on 29th, and peaked at 150 on 4 Sept. Elsewhere there were 28 at Saddlescombe on 18 Aug. and up to 50 during that month at Combe Haven. The last for the year were singles on 8 Oct. in the Lower Cuckmere and at Beachy Head on 10th.

399. **GARDEN WARBLER** (*S. horin*):—Earliest reports were from Thorney Island on 10 Apr. and the Lower Cuckmere Valley on 16th, with 4 at Belle Tout on the same date. Over the previous decade the average first arrival date in Sussex was 14 Apr., assuming that no misidentifications occurred.

Although in many years few are seen until May, males were singing in probable breeding territories at Weir Wood by 18 Apr. and at Darwell by 20th, where the species was described as much commoner than the Blackcap. Counts of pairs in defined areas are given on page 52.

As in 1987 an early arrival may have led to an early departure for most birds, with the peak in Whitbread Hollow being of 100 on 10 Aug., though there were secondary peaks of 80 on 27th and 60 on 10 Sept. Otherwise, the highest counts were of 10 at Filsham and 13 in Moulsecoomb Wild Park on 3 Sept. Nine were recorded at or near the coast in Oct., the last being at Pagham on 22nd.

400. **BLACKCAP** (*S. atricapilla*):—In Jan. and Feb. the records indicated as few as 4 wintering birds — at Billingshurst, Brighton (2) and Seaford — about a sixth of the recent average. This may have been due to the mild weather enabling birds to survive without

visiting gardens, though there were no reports from other habitats. Singles at Southwick and Hove towards the end of March may also have wintered.

Spring arrival was noted at many localities from early Apr., with 10 at Pebsham being the highest count of passage birds; most arrived directly on their territories. Breeding season reports included 16 singing males on the Downs at Burpham, and 10 each in Clapham Wood and The Dover. Counts of pairs in defined areas are given on page 52.

Autumn passage seemed concentrated even more than usual at Beachy Head, where in Whitbread Hollow estimates rose from 75 on 21 Aug. to 175 by 29th, 500 on 4 Sept. and a peak of 900 on 17th, when 171 were ringed. In Oct. there were 150 on 1st and still 40 on 20th. By contrast, only single figures were reported from elsewhere and birds were described as very scarce indeed at Pebsham.

After a handful of late migrants near the coast in the first half of Nov. possible overwintering birds were found at the end of the month at Ferring and Storrington (2). The Dec. total of 9 birds was higher than average with at least 5 individuals at Bexhill and other reports from Hampden Park, Seaford and Brighton.

403. **PALLAS'S WARBLER** (*Phylloscopus proregulus*):—One seen at Church Norton on 9 Nov. (VB, SG, TJJ *et al.*) has been accepted by *British Birds*, is the 9th record in the last 3 years and brings the county total to 21.

404. **YELLOW-BROWED WARBLER** (*P. inornatus*):—Two trapped at Hodcombe, Beachy Head on 15 and 29 Oct. (RHC) bring that year's total to 5.

1988:—After none in 1987, seven were recorded with certainty in an excellent autumn which also produced another 3 strong claims which were considered unproven. On 18 Sept. one was found at Birling Gap (BDJ, PJ *et al.*), just one day later than the earliest (and coincidentally first) county record at Selsey Bill in 1961. All other records were in Oct., at Rye Hbr on 1st (HT *et al.*), at Belle Tout on 4-5th (MK, CFW) with presumably a different individual there on 7th (PBr), at Whitbread Hollow on 20th (GG), at Thorney on 29th (CBC) and at Pagham Lagoon on 29-30th (PBr *et al.*).

408. **WOOD WARBLER** (*P. sibiriacus*):—A total of 17 migrants were recorded in spring, the first at Worthing on 17 Apr. and the last at Beachy Head, Church Norton and Hollingbury on 9 May. The spring maxima were 5 at Church Norton on 21 Apr. and at least 4 at the latter locality on 8 May.

Breeding season records totalled 17 singing males (13 in 1987).

In autumn there were 2 at Beachy Head on 24 July, singles trapped at Pett Level and Cissbury on 3 and 6 Aug. respectively and 1 at Church Norton on 25 Aug.

409. **CHIFFCHAFF** (*P. collybita*):—In Jan. overwintering birds were present at Brighton, Church Norton, Combe Haven (2), Littlehampton GC and Runcton (2). The Brighton individual remained until 15 Feb. and what was possibly a different bird from those above was recorded at Combe Haven on 21 Feb. The only other records for Feb. were singles in the Lower Cuckmere Valley from 6-14th and at Selmeaton on 21st.

One at Worthing on 7 Mar. was thought to have been an overwintering bird but one singing at Pett Level on 17th was probably a new arrival. Further birds were recorded at Church Norton and Cuckmere Haven on 19th and there was a more general arrival after this date. The species was widespread by the end of the month but there were no reports of any large falls of this species.

Breeding season counts from defined areas are shown on page 52. In addition there were 3 pairs at Thorney Deepes and 6 singing males in woodland surrounding Burton Pond LNR.

The total ringed in autumn at Beachy Head was 548 (273 in 1987). Autumn passage was very heavy at this site with peak counts of 600 on 4 Sept., 400 on 10th, 500 on 17th, 700 on 18th, 500 on 19th, 1200 on 29th and 75 on 20 Oct., a late date for such large numbers. Elsewhere there were 100 at Moulsecoomb Wild Park on 3 Sept., up to 500 at Combe Haven on 4th, 100 at Hastings on 17th and 100 at Rye Hbr on 29th. In Nov. and Dec. totals of 18 and 11 were reported from 11 and 10 localities respectively.

Single birds showing the characteristics of one of the northern races *abietinus* or *tristis* were recorded at Worthing on 12 Mar., at Moulseccomb Wild Park from 2 Oct. to at least 18 Nov. and at Beachy Head on 20 Oct.

410 WILLOW WARBLER (*P. trochilus*):—First recorded on 27 Mar. at Chichester GP, Combe Haven and Hove and at Climping and Cowfold the following day. The main arrival, as usual, was in Apr. with maximum counts of 22 in the Lower Cuckmere Valley on 16th, 30 at Castle Hill and 20 at Weir Wood Res. on 17th and 40 at Worthing on 21st. Counts of breeding birds in defined areas are given on page 52. In addition there were 22 pairs at Thorney Deep.

Return passage commenced about 25 July. At Beachy Head, where a total of 583 were ringed in autumn (632 in 1987), there were 150 on 30 July, falls of 100-350 on 9 dates in Aug. and 200 on 4 Sept. Other notable concentrations were 100 at Old Lodge, Ashdown Forest and Rye Hbr on 7 Aug. and 6 Sept. respectively. The last reported was one at Hollingbury Camp on 13 Oct.

411 GOLDCREST (*Regulus regulus*):—Most reports in the early months were from inland, with 21 at Pease Pottage on 19 Jan. the highest count. A good spring passage at the coast produced 40 in scrub on Pevensey Levels on 20 Mar., smaller numbers later in the month at Rye and Climping, and a significant influx of 34 in the Lower Cuckmere on 1 Apr. Few breeding season reports were received; counts from defined areas are given on page 52. On 7 Aug. post-breeding flocks totalling 40 birds were seen at Old Lodge, Ashdown, and a family party was at Burton Mill Pond on 14 Aug.

The exceptional autumn passage began with 6 at Rye on 17 Sept., followed by 20 at Beachy Head on 19th and 200 there on 29th. Estimates from Whitbread Hollow during Oct. included 50 on 1st, 250 on 20th, and 100 on 23rd. Elsewhere during the month high counts were of 25 at Rye, 54 at Cissbury, 20 at Goring Gap in one fallen sycamore, 50 at Climping and 35 at the Severals. Inland, 35 were seen at Wigginholt Common. After 6 at Rye on 10 Nov. few were seen at the coast, and 8 at Ebernoe on 17th was the highest of a handful of Dec. reports.

412 FIRECREST (*R. ignicapillus*):—An average showing in autumn followed a quiet spring, the approximate monthly totals, away from breeding areas, being:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	12	10	1	1	15	48	9	3		

The only early winter records were singles at Kingley Vale on 10 Jan. and at Chichester GP on 28 Feb. Two at the latter site on 14 Mar. were probably migrants and were soon followed by singles at Climping on 18th, Chalvington on 20th and Hove and Rye Hbr on 21st. One was present at Pett from 23rd-27th while 3 were recorded at Beachy Head on 24th, with 2 there on 26th and singles at Rye Hbr and Herstoncoex on 28th and 29th respectively. In April 2 were reported at Rye Hbr and at Beachy Head on 2nd, 2 at Birling Gap and 1 in Brighton on 4th, 1 at Cissbury on 8th and 1-2 at Beachy Head on 9-10th. The last passage birds seen were at Beachy Head and in E Brighton on 17 Apr. and at Rye Hbr on 9 May.

During the breeding season a singing male was recorded between early May and mid-July at a suitable locality in the north of the county while another was reported on several dates in June in the south of the county.

An early migrant was reported from Church Norton on 22 Aug. with singles at Rye Hbr on 9 Sept. and at Bewl Water and Beachy Head on 11th. On 21st another was at Rye Hbr followed by 3 at Beachy Head on 22nd, another 3 there on 24th and one at Cissbury on 25th. Six were seen between 28 Sept. and 2 Oct., with singles at Goring Gap on 6 Oct. and Beachy Head on 10th. Between 12-24 Oct. a total of 39 were recorded, mainly from along the coast and at Beachy Head in particular, where reports included 3 on 12th, 5 on 15th, 4 on 17th and 3 on 24th. Elsewhere notable occurrences were singles at Marley Common on 12 and 21 Oct., 4 at Climping/Littlehampton GC and 2 at Cissbury on 15th and 1 at Charleston Reedbed on

22nd. Five were seen between 28-30 Oct., including 1 at Slinfold, while in Nov. most records came from Church Norton where 1-2 were present elusively from 5 Nov. to 5 Dec. Interestingly, most other late records were inland, namely singles at Chailey Common on 6 Nov., Ebernoe on 7th, Arundel on 11th, Ashdown Forest on 17 Nov., and at Gravetye Lakes on 17 Dec.

413 SPOTTED FLYCATCHER (*Muscicapa striata*):—1987:—The record for 5 Apr. should be deleted.

1988:—First recorded on 30 Apr. at Belle Tout and on 6 May at Thorney Island and Winchelsea. A more general arrival was noted on 9 May including 17 at Thorney Island, at least 9 at Rye Hbr, 7 at Brighton Marina and 6 at Combe Haven.

Counts of breeding birds in defined areas are given on page 52. Elsewhere 21 pairs were reported, of which 6 raised 17 young (average 2.83).

The first returning bird was seen on 30 July at Rye Hbr. In Aug. there was a single at Brighton on 5th while the peak count for the month was 30 at Shermanbury on 14th. Passage was heaviest in Sept. with maximum counts of 25 at Hollingbury on 6th, 30 at Beachy Head on 18th and 25 in the Lower Cuckmere Valley on 25th. A total of 4 were recorded in Oct., the last being 2 at Littlehampton West Beach on 14th.

416. PIED FLYCATCHER (*Ficedula hypoleuca*):—Recorded in very good numbers in spring, though the autumn was particularly poor (a pattern very similar to 1987, see *SyBR* 40:61). The approximate monthly totals were as follows:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
			13	8	1	10	24	1			

First recorded on 15 Apr., the earliest arrival since 1981, when one was seen at West Wittering, closely followed by singles at Church Norton and Goring Wood on 16th and an influx of 9 on 17th (cf. 10 on 18 April 1987); at Beachy Head, Buchan Park, Church Norton, Climping, Decoy Wood, E Brighton, Kingley Vale, Preston Park, and Warnham. One was recorded at Littlehampton GC on 21 Apr. and at Beachy Head on 24th while in May singles were seen at Balsean and Rye Hbr on 2nd and at Winchelsea and Hollingbury on 7th. Three were present at Hollingbury on 8th, one at Beachy Head on 10th and the last of the spring in E Brighton on 24 May.

Return passage was very poor, the first sightings being at Shoreham Sanctuary on 3 Aug., Winchelsea on 6th, Church Norton and Ringmer on 7th and in Eastbourne on 9th. One at Beachy Head on 14th was then the only record before 2 at Pett on 25th. Between 29 Aug. and 14th Sept. only 17 isolated individuals were recorded, mainly along the coast, followed by 1 at Rye Hbr and Pagham Hbr on 17th, 4 at Beachy Head on 18th and singles in Ovingdean and W. Durrington on 19th. One remained at Rye Hbr from 25-28 Sept. and the last of the year was also there on 1 Oct., another early departure.

417. BEARDED TIT (*Panurus biarmicus*):—The approximate monthly totals were as follows:

No. of sites	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
No. of birds	1	1	1	2	1	2	1	1	1	7	5	3
	25	25	15	12	8	10	3	4	—	51	43	40

In the breeding season 4 pairs bred at one site and although a pair with a juv. was seen in July at another these were thought to be early migrants. This latter site held most birds with at least 25 in the early part of the year and 35+ in the latter part. Elsewhere, there were 4 at Rye Hbr in Oct. with birds heard calling on one date in Nov., 4-5 at Pett in Oct. and Nov. and 2 in Dec., 1 at Church Norton in Oct. and 2 in Nov., 1 at Arundel WFT in Oct. and 3 in Dec., 1 at Littlehampton GC on 21 Oct. and 1 at Newhaven Tidemills on 18 Nov.

418. LONG-TAILED TIT (*Aegithalos caudatus*):—Widely reported throughout the county with a maximum flock size of 40 and a mean of 13. Ringing totals for the year were well above average for the last decade, possibly a result of recent mild winters.

Counts of breeding birds in defined areas are given on page 52.

419. **MARSH TIT** (*Parus palustris*):—During Jan-Feb. 8 were counted in 7 km at Greatham, 12 in 7 km at Ardingly and 17 in 4 km at Coates Common.

Counts of breeding birds in defined areas are given on page 52. At Darwell Res. 13 birds on 20 May included 2 family parties. Post-breeding maxima were 20 at Swanbourne Lake on 1 and 21 July and at Rackham Woods on 12 Aug.

Birds coming to peanut feeders were noted at 2 localities.

420. **WILLOW TIT** (*P. montanus*):—Reported throughout the year from 19 inland localities across the county, the maximum being 10 among tit flocks on the Downs above Heyshott on 17 Jan.

Two pairs bred successfully on 60 ha of farmland at West Chiltington but ringing totals were the lowest for the last decade.

422. **COAL TIT** (*P. ater*):—Nest box schemes revealed marked reductions in usage by the species, apparently greatly affected by the loss of many conifer plantations in the storm of Oct. 1987, although post-breeding flocks totalling 150 were noted at Old Lodge on 7 Aug.

A bird showing the characteristics of the continental race (*P. a. ater*) was recorded at Newmarket Hill on 19 Sept. (R.J.F.).

423. **BLUE TIT** (*P. caeruleus*):—Nest box schemes and pulli ringing totals indicated a poorer breeding season for this species with 1-2 young in many later broods failing to fledge. Counts of breeding birds in defined areas are given on page 52.

The largest concentrations reported were of 100 each at Old Lodge on 7 Aug. and Beachy Head on 29 Sept.

424. **GREAT TIT** (*P. major*):—1987:—The entry in *SxBR* 1987 should be amended to read 'large flocks were noted feeding on the exceptionally large beech mast crop that had been blown down and on many of the trees that bore it. This latter fact may have far reaching consequences for the species' survival in future winters.'

1988:—Counts of breeding birds in defined areas are given on page 52.

The largest concentrations noted were 19 at Darwell Res. on 21 Feb. and 30 at Birling Gap on 28 Sept., the latter being part of an autumnal movement (*cf.* Blue Tit).

Melanistic individuals were reported from Bexhill, Crowborough, Combe Haven and Shoreham. The latter bird, a male present since 1987, paired with a normal female and raised 3 young, 2 of which were melanistic.

425. **NUTHATCH** (*Sitta europaea*):—The only breeding concentrations reported were 4 pairs in 60 ha at West Chiltington and 8 pairs along 8 km of the Bluebell Railway between Sheffield Park and Horsted Keynes. One was recorded at Cissbury on 18 Sept., an unusual location for the species.

427. **TREECREEPER** (*Certhia familiaris*):—Although widely reported, some observers considered the species less numerous than in 1987. The annual ringing total for the county, however, was close to the average for the previous decade.

Counts of breeding birds in defined areas are shown on page 52.

At Greatham, 7 were counted in 7 km on 26 Jan. and 15 on 28 July.

429. **PENDULINE TIT** (*Remiz pendulinus*):—An adult female or first-winter male trapped at Icklesham on 15 Oct. (S.J.R.R., J.W.) has been accepted by *British Birds* and is the 5th to be recorded in the county, the previous 4 being in Oct. 1987.

430. **GOLDEN ORIOLE** (*Oriolus oriolus*):—A male heard at Cissbury on 6 June (ASC) was the only record.

432. **RED-BACKED SHRIKE** (*Lanius collurio*):—One in late spring and three in autumn is slightly above average for recent years. Records were as follows: a female at Hamsey on 16 June (M.J.H.) and juveniles at Littlehampton GC on 22 Aug. (O.M.), Church Norton from 16-19 Sept. (ASC *et al.*) and Littlehampton GC on 28-29 Oct. (R.J.S., RoK), the latest county record since 1978.

434. **GREAT GREY SHRIKE** (*L. excubitor*):—Five were recorded during the year, the best total since 1979. In Jan. one was seen briefly at Cuckmere Haven on 12th (PEB) while in autumn singles were recorded at Beachy Head on 18 Oct. (RDME), at Paghnam Hbr on 28th (B.J., CMJ *et al.*) and at Beachy Head on 29th (DC, JFC). What was presumably the same wintering individual from Dec. 1987 returned to Ashdown Forest from at least 15 Nov. to 27 Dec. (PF *et al.*). It was most frequently encountered at the Hollies, NE of Nutley, but covered a wide area (including Millbrook Hill and Old Lodge), making it very difficult to locate at times.

435. **WOODCHAT SHRIKE** (*L. senator*):—An adult at Cuckmere Haven on 27 May (AA, BCCC) has been accepted by *British Birds* and is the 30th for the county.

436. **JAY** (*Garrulus glandarius*):—Breeding season counts for defined areas are given on page 52. In autumn, a total of 34 presumed migrants were reported from 12 localities between 10 Sept. and 29 Oct. The largest numbers recorded were 4 at Littlehampton GC on 14 Oct. and 6 at Birling Gap on 17 Oct.

437. **MAGPIE** (*Pica pica*):—The maximum count at the Moulsecocomb roost was 74 in Jan-Mar. The only other large concentrations reported were 50 at Chalvington at dusk on 16 Jan., 40 at Shoreham on 17 Feb., up to 39 at Ansty in Feb-Mar., 33 at Newtimber Hill on 4 Oct. and 30-35 at Combe Haven in Nov-Dec.

438. **JACKDAW** (*Corvus monedula*):—The largest concentrations reported were pre-roost movements of 500 at Arlington Res. and Lavington Common on 8 and 21 Mar. respectively, 900 at the latter site on 10 Nov. and 500 at Weir Wood Res. on 3 Dec. Up to 500 were recorded regularly on Pebsham Tip during the winter months.

441. **ROOK** (*C. frugilegus*):—Counts were received for 32 rookeries totalling 934 nests. There were no reports of large concentrations outside the breeding season.

442. **CARRION CROW** (*C. corone*):—The largest concentrations reported were 350-400 at Pebsham Tip during the winter months, 121 SW at Beachy Head in 4.5 hours on 22 Oct. and 74 at Goring on 6 Feb.

442b. **HOODED CROW** (*C. c. cornix*):—Single birds were recorded at Shoreham on 5 Mar. (CWM), in the Lower Cuckmere Valley on 6 May (S.L., AW), at Pebsham Tip in Oct-Dec. (K.M.J.) and at Rye Hbr on 5 Nov. (HT).

444. **STARLING** (*Sturnus vulgaris*):—The regular roost at Seaford held 10000 birds in Jan., 6000 in Nov. and 12000 in Dec. At Rye Hbr the total roosting in reedbeds from June-Nov. reached a peak of 10000 in Oct. whilst at Thorney Island another reedbed roost held 2000 birds in Aug. Other notable concentrations reported included up to 4000 on Horse Eye Level and 3000 at Shoreham airport, both in Jan., 2000 at the latter site in Nov. and a pre-roost gathering of 11000 at West Hove GC in Dec.

An albino individual was recorded on Pevensy Bridge Level and at Rickney in the early part of the year.

448. **TREE SPARROW** (*Passer montanus*):—The species seems to be in continuing decline with very few large flocks recorded, particularly during the first winter period. The only reports of 10 or more in Jan-Mar. were 50 at Herstmonceux throughout the early

months and 25 at Rye Hbr on 1 Jan. which declined to 10 on 17th. At the latter site 30 were recorded on 4 Apr.

During the breeding season a total of 22 pairs were reported from 10 localities, including 5 pairs at Bells Yew Green and 4 pairs at Climping.

In Aug. 30 were recorded at Henfield on 7th and 20 at Climping on 27th whilst in Sept. 16 at Rye Hbr on 4th increased to 22 on 12th and 30 on 30th. Autumn passage was again very light with little evidence of visible migration. Flocks of 10 or more were reported from 4 localities in Oct., 3 in Nov. and 7 in Dec. Up to 75 at Rye Hbr at the end of the year represented the largest concentration recorded in the county during 1988.

451. **CHAFFINCH** (*Fringilla coelebs*):—The totals recorded for Jan. and Feb. were 510 and 492 respectively, both from 4 localities. The only flock reported in Mar. was 100 at Moulsecomb Wild Park on 12th.

Breeding season counts for defined areas are given on page 52. In addition there were 20-23 pairs at Thorney Deepes and 17 singing males at Darwell Res.

At Beachy Head in the autumn only 300 W on 29 Sept. and 200 on 20 Oct. were recorded. The Nov. and Dec. totals were 336 and 1120 respectively, from 3 and 6 localities, including 500 at Madehurst and 300 at Standean, both in Dec.

452. **BRAMBLING** (*F. montifringilla*):—The Jan., Feb. and Mar. totals of only 8, 2 and 2 from 3, 2 and 1 localities respectively were in line with the very low numbers recorded in late 1987. A single bird present at Cissbury on 8 Apr. was the only record for that month.

In autumn, following singles at Church Norton on 17 Sept. and at Pett on 8 Oct., a further c.85 were reported from coastal localities between 14 Oct. and the end of the month. The Nov. and Dec. totals were 32 and 48 from 9 and 2 localities respectively, including 40 at Madehurst on 28 Dec.

453. **SERIN** (*Serinus serinus*):—A singing male at Hollingbury GC on 28 July (ADW, IJW) was the only record. A poor showing following the 9-10 recorded in 1987.

455. **GREENFINCH** (*Carduelis chloris*):—In the early months the largest flock reported was only 74 at Moulsecomb Wild Park on 12 Mar.

Counts of breeding birds in defined areas are given on page 52. In addition there were 11-12 pairs at Thorney Deepes.

During Sept. and Oct., flocks totalling 150 and 780 were recorded from 3 localities in each month, including 300 at Oving and 400 at Rye Hbr, both in Oct. Visible passage on the coast between Lancing and Littlehampton totalled 401 E from 16-19 Oct.

The Nov. and Dec. totals were only 110 and 117 from 2 and 3 localities respectively.

456. **GOLDFINCH** (*C. carduelis*):—In the early months the only large flocks reported were 80 at West Chilton and 75 at Horsham, both in Mar.

In Sept. 1400 were recorded from 10 localities, the main movement being 1000 W at Beachy Head on 29th. Easterly passage during Oct. totalled 11680 at 8 coastal sites but with possible duplication from adjacent areas the figure was probably nearer 8600.

The Nov. and Dec. totals were only 79 and 111 from 2 and 5 localities respectively.

457. **SISKIN** (*C. spinus*):—An excellent year in contrast to 1987. The Jan., Feb. and Mar. totals were 269, 66 and 148 from 8, 6 and 6 localities respectively, including 150 at Horsham on 10 Jan., 40 at Tilgate on 12 Feb. and 105 at Pease Pottage on 14 Mar. Apart from 50 at Balcombe on 3 Apr. only 5 other birds were recorded between 3-6 Apr. Possible breeding birds were present in different areas on 22 Apr. and 22 May but once again there was no evidence of confirmed nesting.

In autumn an early single was recorded at Beachy Head on 4 Aug. and small numbers were present at Cissbury from 30th. Passage was very heavy during the periods 15-22 Sept.,

28 Sept-3 Oct. and 15-20 Oct. involving 2250, 2250 and 1000 birds respectively. Where recorded, movement was mainly E apart from an exceptional 1500 W at Beachy Head on 29 Sept.

The Nov. and Dec. totals were 221 and 119 from 16 and 9 localities respectively, the largest flocks being 30 at Church Norton on 12 Nov. and 40 at Eridge on 18 Dec.

458. **LINNET** (*C. cambridgia*):—In Jan., Feb., Mar. and Apr., 95, 42, 150 and 166 were recorded from 3, 2, 1 and 4 localities respectively, including 150 at Droke on 2 Mar. and 70 at Ifield on 24 Apr. At Worthing 116 were counted in Apr. in 150 hours observation.

Counts of breeding birds in defined areas are given on page 52. In addition there were 36-38 pairs at Thorney Deepes.

The first post-breeding flock was 150 at Moneypenny GP on 31 July whilst the Aug. and Sept. totals were 325 and 770 from 2 and 4 localities respectively, including 300 at Belle Tout on 27 Aug., 300 at West Wittering on 26 Sept. and 400 W at Beachy Head on 29 Sept. During Oct. 4339 were recorded from mainly coastal and downland areas, the peak counts being 2000 at Beachy Head on 17th, 340 E at Cuckmere Haven on 8th and 300 at Combe Haven and Beachy Head on 10th and 20th respectively.

The Nov. and Dec. totals were 148 and 520 from 3 and 5 localities respectively, including 200 at Rye Hbr and 150 at Combe Haven, both in Dec.

459. **TWITE** (*C. flavirostris*):—Records for the early part of the year were as follows: R. Adur, 3 on 21 Jan.; Church Norton, 7 on 6 Jan., 5 on 21-22 Jan. and 11 on 24 Jan.; and Lower Cuckmere Valley, 2 from 1 Jan. to 12 Mar.

Equally scarce in the second winter period with 5 E at Littlehampton West Beach on 17 Oct., one on Lewes Brooks on 22 Oct., 3 on Adur saltings on 13 Nov., 7 at Arlington Res. on 27 Nov. and 5 at Pagham Hbr on 1 Dec. A poor showing.

460. **REDPOLL** (*C. flammea*):—Numbers were again low in the early part of the year with 52 reported in Jan., 80 in Feb., only 9 in Mar. and 77 in Apr.

During the breeding season a mere 17 pairs/displaying males were reported.

In autumn far more numerous than in recent years with 166 recorded in Sept., 1073 in Oct. and 108 in Nov. The maximum noted was 200 at Pett Level on 8 Oct. A total of 30 were reported in Dec.

463. **CROSSBILL** (*Loxia curvirostra*):—The approximate monthly totals were:

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
5	—	—	5	3	25	16	51	6	—	4	—

The only Jan. record was of 5 at Heyshott on 14th. In Apr. pairs were recorded in Worth Forest on 11th and in Ashdown Forest on 12th and there was a single bird in Tilgate Forest on 27th. Another pair was recorded in a different area of Ashdown Forest on 5 May and there was a female at Abbots Wood on 29th. A small influx occurred in June with one at Cissbury on 19th, 16 over Falmer on 24th and 8 NE at Chiddinglye Farm, West Hoathly on 26th. In July there were 14 NW at Three Bridges on 25th and 2 at Cissbury on 31st. A second influx occurred in Aug. with a total of 48 recorded passing over Whitbread Hollow, Beachy Head during the month, 2 at Abbots Wood on 14th and 1 W at Filsham on 28th. In Sept. there were 2 over Filsham on 4th, 1 E at Winchelsea on 9th and 3 at Old Lodge, Ashdown Forest on 11th whilst the only other record for the remainder of the year was 4 N over Pett Level on 19 Nov.

469. **BULLFINCH** (*Pyrrhula pyrrhula*):—Counts of breeding birds in defined areas are given on page 52.

470. **HAWFINCH** (*Coccothraustes coccothraustes*):—A poor year with just 12 reported as follows: 1 at Wakehurst Place on 8 and 27 Mar., 1 at Haywards Heath 1 May, a pair at Fore Wood 15 May, 1 at Felpham 26 June, 2 at Barcombe 8 Aug., 2 at Rackham Woods 1 Sept., 1 at Church Norton 23 Oct. and 2 on 29th and 1 at Hollingbury 14 Nov.

493. **LAPLAND BUNTING** (*Calcarius lapponicus*):—Seven were reported during the year, well down on the 44 recorded in 1987 but still more than usual. Two at Broomhill Level on 7 Feb. (PFB) were the only individuals recorded during the early part of the year. In Nov. singles flew over Pevensey Levels on 6th (JPS) and Combe Haven on 14th (KMJ) while in Dec. one was reported from Pett Level on 18th (CHD), a male seen at Hooe Level on 20th (PJ, TJW) and a female at Cuckmere Haven on 27-28th (WJMS).

494. **SNOW BUNTING** (*Plectrophenax nivalis*):—The female present at Littlehampton West Beach from 20 Dec. 1987 (SxBR 40:66) was last seen on 18 Mar. Elsewhere in Mar., there were 2 at Selsey and 1 at the Crumbles on 19th, 1 over Sidlesham on 29th, a male at Bewl Water on 30th (AHL) and 2 (possibly the Selsey birds) at Church Norton on 31st. In Apr. there was 1 at Paghams Hbr on 10th and a male in partial summer plumage at the Crumbles on 16th, a late date.

The first of the autumn was 1 over Iford Hill on 1 Oct. followed by singles at Combe Haven on 9th and flying E at Littlehampton West Beach on 18th. Records for the remainder of the year were of 2 at Church Norton on 12 Nov. and 4 the following day, 3 at Littlehampton West Beach on 27 Nov. and 5 Dec. and singles at West Wittering on 21 Nov., Pilsley Island on 26 Nov., Pett Level on 10 Dec. and over Combe Haven on 18 Dec.

496. **YELLOWHAMMER** (*Emberiza citrinella*):—In Jan. at least 60 were on farmland at Climping and 30-40 on the Downs above Heyshott. Feb. flocks were of 160 at Falmer, 50 near Crawley and 29 at West Chiltington, the latter rising to 80 in Mar. There were 25 at Shillinglee on 4 Apr.

Breeding season counts for defined areas are given on page 52.

In the latter part of the year flocks of 20 were recorded at Castle Hill and 30 at Bewl Water in Oct., 25 at West Chiltington in Nov. and 17 at Thorney Island, 30 at Waltham Brooks, 40 at Ford and 70 at Paghams Hbr in Dec.

497. **CIRL BUNTING** (*E. cirlus*):—An adult male seen at Selsey Bill on 8 May (RBR, BJ) did not remain long but provided the county with its second record in as many years, none having been reported between 1984-86.

499. **ORTOLAN BUNTING** (*E. hortulana*):—One flew W calling over Combe Haven on 5 Sept. (KMJ), the 51st county record.

506. **REED BUNTING** (*E. schoeniclus*):—Very few were reported in the early months. In the breeding season there were 49-51 pairs at Thorney Deepes, 5 males at Burton MP, 3 males at Warnham MP and Waltham Brooks, 2 males at Petworth Lake and 1-2 pairs at Darwell Res.

A small passage was noted in late autumn but there were also 20 in the Ouse Valley on 2 Oct. and 50 E at Climping on 16th. Dec. flocks included over 70 at Waltham Brooks, 40 at Middle Bridge, Pevensey Levels and 10 in a garden at South Malling, Lewes.

510. **CORN BUNTING** (*Miliaria calandra*):—Flocks reported outside the breeding season were smaller than in 1987 with, for example, 50 at Rye Hbr and 35 at the Union Channel in Jan., 40 at Thorney Island and up to 22 at Chyngton Farm, Cuckmere in Feb. and 12 at Ford and Rye Hbr and 22 in the Cuckmere in Dec.

In the breeding season there were 12 singing males on Thorney Island airfield, 8 at Yapton, 7 at Rye Hbr, 5 at Burpham and 1 at Goring and a further 34 on the Downs between Beachy Head and Wepham Down.

ESCAPES AND FERAL BIRDS

The following escaped or feral birds, other than those Category C species in the main list, were recorded in the county in 1988:

CHILEAN FLAMINGO (*Phoenicopterus ruber*):—One at Weir Wood Res. from 17 Oct. to at least 31 Dec.

BLACK SWAN (*Cygnus airatus*):—One in Chichester Hbr from 13 May to 18 June. A pair at Rye Hbr from 5 Aug. to 7 Sept. were also seen at Pett Level on the latter date.

PINK-FOOTED GOOSE (*Anser brachyrhynchus*):—The feral bird at Bewl Water remained throughout the year.

LESSER WHITE-FRONTED GOOSE (*A. erythropus*):—An adult with Canada Geese at Petworth Park on 6 June and at Arundel WFT on 15 Oct. and 3 Nov.

SNOW GOOSE (*A. caerulescens*):—At Bewl Water, 5 white phase adults were present from 6-8 Dec. when they left very high to NW. A single white phase adult of undoubted feral origin was also present at this locality from 26 June to 3 July. Reports of a blue phase bird in the Lower Cuckmere on 15 Sept. and at Arlington Res. from 26 Nov. to at least 31 Dec. almost certainly relate to the same individual.

EMPEROR GOOSE (*A. canagticus*):—Reports of a single bird at Arundel WFT in Jan.-Feb. and on 3 Nov., at Thorney Deepes on 10 Oct. and at Stedham Sandpit on 25 Oct. probably relate to the same individual.

BAR-HEADED GOOSE (*A. indicus*):—One at Waltham Brooks on 21 Aug. and 17 Dec.

BARNACLE GOOSE (*Brania leucopsis*):—Once again numerous reports were received of feral birds associating with flocks of Canada Geese. Up to 5 were recorded at Arlington Res., 2 at Bewl Water, 3 at Barcombe Res. and singles in the Lower Cuckmere and at Weir Wood Res.

RUDDY SHELDUCK (*Tadorna ferruginea*):—Three at Weir Wood Res. on 29 May and one at Rye Hbr on 15 Aug.

WOOD DUCK (*Aix sponsa*):—During the year, birds were reported from 8 localities as follows: 1 at Wakehurst Place on 8 Mar., a male at Ardingly Res. from 26 Mar. to 24 Sept., 2 at Walberton Sandpit on 18 Apr., a pair at Swanbourne Lake on 28 May, up to 8 at Blackboys in May-June, a female at Rackham on 21 June, 2 males at Waltham Brooks on 17 Sept. and a female at Rye Hbr on 15 Nov. All records of this species are welcome.

WHITE-CHEEKED PINTAIL (*Anas bahamensis*):—One at Rye Hbr on 17 Sept.

CAPE TEAL (*A. capensis*):—One at Weir Wood Res. from 12 Aug. to 6 Oct.

CHESTNUT TEAL (*A. castanea*):—A male at Rye Hbr on 25 June.

SPECKLED TEAL (*A. flavirostris*):—One at Rye Hbr on 27 Aug.

RINGED TEAL (*A. leucophris*):—A pair at Arlington Res. on 15 and 27 Nov.

RED-CRESTED POCHARD (*Netta rufina*):—A male with abnormal plumage remained at Brooklands lagoon throughout the year.

COCKATIEL (*Nymphicus hollandicus*):—Singles at Widewater, Lancing on 26 Mar. and at Littlehampton GC on 29 Oct.

ALEXANDRINE PARAKEET (*Psittacula eupatria*):—One in the Selsey/Church Norton area from 15 Feb. to 21 May.

YELLOW-CROWNED PARROT (*Amazona ochrocephala*):—One at Selsey Bill on 21 Sept. and 6 Nov. was probably this species.

EAGLE OWL (*Bubo bubo*):—One at Lancing College on 15 Mar. was probably that present in the grounds of Chichester Cathedral from 5 Nov. into 1989.

YELLOW-FRONTED CANARY (*Serinus mozambicus*):—A male at Whitbread Hollow, Beachy Head on 11 Sept.

JAVA SPARROW (*Padda oryzivora*):—One at Pagham Hbr on 18 June.

BLACK-HEADED WEAVER (*Ploceus cucullatus*):—A male at Selsey Bill from 6 Jan. to 4 Mar. and a single bird in the Lower Cuckmere on 7 May were probably of this species.

RED BISHOP (*Euplectes borix*):—A single bird, probably this species, at Charleston reedbed on 7 Aug.

All records of *B.O.U. Category C* species, of apparently feral individuals of other species, and of other probable or certain escapes from captivity, will be welcomed by the Hon. Recorder for this new annual feature. Notes on age/sex, plumage, behaviour and, where known, status will be especially welcome. Such records should be submitted in the normal way but on separate recording forms from the bulk of records. Ed.

RINGING IN SUSSEX IN 1988

by Derek Crawley

Details of 38,454 birds of 188 species were notified by 24 individual ringers and 7 groups in 1988. This represents, by a considerable margin, the highest annual figure of birds ringed in the county. The Rye Bay group ringed more than half of that total. There were mixed fortunes among other individuals and groups. Reports were received of over 300 Sussex-ringed birds and more than 150 birds ringed elsewhere were controlled in the county. In the following report all dates refer to 1988 unless otherwise stated.

To mention some of the more unusual birds first: on 7 December a **Mediterranean Gull** was ringed at Sumping refuse tip; on 10 September Cuckmere RG ringed a **Wryneck** (the 11th ringed in the county in 10 years); and on 23 October a **Savi's Warbler**,* probably of the eastern race *fuscus*, was ringed at Icklesham. Less than 50 Savi's Warblers have been ringed in Britain and this is the first in Sussex since 1980. Cuckmere RG ringed an **Icterine Warbler*** and a **Dartford Warbler** while a second Dartford Warbler* was ringed at Hodcombe. An adult female **Penduline Tit** ringed at Icklesham on 15 October was one of three ringed in southern England in the same month, the other two being in Kent and Wiltshire. Up to the end of 1986 only 12 sightings of this species had been accepted by the *British Birds* Rarities Committee. In 1987 five more were added; four of these, three adults and a first-year bird, were all seen in October between St Leonards and Winchelsea (Rogers, 1988). This mainly resident species has been

*Subject to verification by Records/Rarities Committee.

slowly moving westwards from central and eastern Europe and has been recorded breeding in the Netherlands for several years. (See Stop Press, p. 76.)

Over the years more than a few oiled birds are recovered from Sussex beaches, cleaned and then released. It is gratifying for those involved to learn, through ringing, that the treatment can be successful and long-term. A **Great Crested Grebe** was treated and released on 23 March 1985. It survived until it was killed in a trap set for Muskrats on or about 15 August 1988 in southern Holland. A **Shag** ringed on the Isle of May on 22 June 1987 became a victim of oil and was found dead on Winchelsea Beach on 13 February.

A **Grey Heron** ringed as a nestling in Denmark in May 1986 was found dead at Hammer, West Sussex on 23 July 1987 (report received in 1988). BTO records up to and including 1986 show recoveries of 465 foreign-ringed Herons in Britain, 80% being Scandinavian birds. While the British population is non-migratory there is a considerable autumn migration of Scandinavian birds, as well as a post-fledging dispersal from the breeding areas, that has resulted in recoveries of 300-400 km regularly. It is not known whether this individual had attempted breeding. Although it is not unknown for Herons to breed in their first season, breeding does not usually take place until the second year (Cramp and Simmons, 1977).

Not many ducks are ringed in the county but the last two years have shown some increase — 105 were more or less equally distributed between 1987 and 1988. Four (2 **Teal** and 2 **Mallard**) have been recovered. All four were shot within 40 km of the ringing site at the eastern end of the county.

Thirteen **Sparrowhawks** were ringed, the same number as in 1987. These figures are down on the immediately preceding years but the difference shows the success or otherwise of ringing activity rather than a drop in the numbers of Sparrowhawks. Observations in 1987 suggested a good breeding season which was followed by a mild winter.

Fifteen species of waders were ringed. Long-term resident on the Adur was a **Ringed Plover**, ringed on 28 November 1979 and still there on 12 February 1988. Other reports included a **Snipe** ringed on 20 October that was shot at Clandore, Co. Cork, on 9 December. A **Redshank** ringed as pullus on 27 May suffered the same fate at Baie de Somme, France on 31 July, and a **Green Sandpiper** ringed on 17 July 1987 was 'found' at Attaouiaia, El Kelaa, Morocco (31°50'N, 07°19'W — 2225 km) on 7 September 1988. This is the first recovery of a British-ringed Green Sandpiper in Africa, according to the latest information.

1988 saw a big reduction in the number of gulls ringed but they still provide plenty of evidence of their movements and origins. Table 1 breaks down reported controls and recoveries of **Black-headed Gulls**.

TABLE 1. BLACK-HEADED GULL: CONTROLS OF FOREIGN-RINGED BIRDS IN SUSSEX AND OF SUSSEX-RINGED BIRDS ABROAD

	France	Belgium	Netherlands	Denmark	Norway	Sweden	Finland	West Germany	East Germany	Poland	Czechoslovakia	Russia	Estonia	Latvia	Totals			
Foreign-ringed	—	1	—	17	14	1	7	12	7	2	1	1	—	1	—	6		
Sussex-ringed	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	4	73

Two recoveries worthy of mention are a **Common Gull** ringed at Sumping on 5 February 1986 and found dead at Arkhangelsk, USSR on 1 May 1987, a

distance of 3077 km; and a **Great Black-backed Gull** at least 4 years old on 13 September 1983 which was found dead in Göteborgs och Bohus, Sweden (1050 km) on 27 July. This is a modest age compared to the recently established longevity records of 21 years 8 months for a Great Black-back and of 27 years 8 months for a Lesser Black-back. I cannot help wondering what I was doing on 9 August 1959 when the Lesser was being ringed!

Of the six **Barn Owl** recoveries reported in 1988 only one bird was alive. Of the others, three were definite road casualties. A nestling ringed at Westfield in July 1987 was killed on a road at Huntingdon, Cambridgeshire in March 1988. The distance of 166 km is unusual, only 3% of 995 recoveries from the British ringing scheme being from more than 100 km (Glue, 1986).

1988 saw a dramatic increase in the number of hirundines ringed. All the **Sand Martins** (3897) and most of the **Swallows** (4776) were ringed at roosts in the east of the county. It will come as no surprise to learn that as a result of this effort a number of birds were controlled. Seventy-six birds were controlled at Icklesham, of which 80% had been ringed in 1988. Of the rest, the oldest was a juvenile ringed at Llangorse Lake, Powys on 19 July 1985 and controlled at Icklesham on 4 September 1988, at three years not an especially great age. The most westerly bird was ringed at its birthplace at Moorestown, Kilfinnane, Co. Limerick on 15 July. This too was controlled at Icklesham — on 27 August. Ringers at Icklesham controlled 16 birds from Scotland that had been ringed over the last three years. The oldest from Loch Spynie, near Forres, Moray, had also travelled the longest distance of the group. It was ringed on 3 September 1985 and controlled on 21 August 1988.

Details of an adult Sand Martin with a French ring that was at Icklesham on 27 August are still not available at the time of writing. It was noted that 16 birds ringed at Icklesham on various dates in August were later retrapped within a week at roosts in Kent, principally Sandwich Bay and the Isle of Grain; and there was reverse traffic involving four birds. All of these were first-year birds. There is probably much movement between the SE England roosts before the birds make the favoured short sea-crossings from between Kent and Dorset (Mead and Harrison, 1979).

Despite the greater number of **Swallows** ringed, only 30 were involved in reports. Two of these came from North Africa. One, a first-year bird passing through Icklesham on 10 September, was found dead in Algeria, near Bechar (31°35'N, 02°16'W) on 17 October. The second, also a first-year, was 'found' at Douar Ouled Belaid, Morocco (34°27'N, 06°11'W), having travelled the 1912 km in 14 days.

A **Pied Wagtail** ringed as an adult at Shoreham on 26 October 1983 survived until 3 February 1988. It was found dead at Southwick.

A first-year **Wren** ringed at Walberswick, Suffolk on 25 September was controlled by a ringer at Shoreham on 15 October. It had covered a distance of 208 km. Some Wrens will move short distances, up to 50 km in any direction, but the longer movements are invariably north to south at this time of the year.

Three **Robins** were found a long way from their places of ringing. A first-year ringed at Litlington on 26 September 1987 fell foul of a cat in Penzance on 26 February. Another young bird ringed at Beachy Head on 18 September was found dead on 15 December in the Algarve, Portugal. The sex of this Robin was not known but females tend to predominate among migrating British-born birds. This is the 12th British-ringed Robin found in Portugal. Yet a third first-year, this time with a Finnish ring, was controlled by the Rye Bay group on 21 October at

Icklesham. This is the 12th Robin from Finland reported in Britain. Full details of ringing have not yet been received.

Arguably the most exciting recovery of the year was the **Ring Ouzel**, a first-year bird, ringed at Ashcombe, Lewes on 23 October 1987 and found in July 1988 at Odda, Hordaland, Norway (1101 km). Roy Levertton comments: 'Although it has long been suspected that Ring Ouzels passing through Britain in late autumn were Scandinavian birds, this is apparently the first ringing evidence, the only other movement to or from Scandinavia being of a spring bird from the Isle of May'. 1988 seemed to be an exceptional year for this species; 93 were ringed, nearly all in the Lewes and Beachy Head areas.

A **Beachy Head Song Thrush** ringed when a first-year on 1 October 1981 was reported dead, killed by a cat, in Eastbourne on 5 July 1988.

Eleven **Sedge Warblers** were reported. One ringed at Icklesham on 25 July 1987 was controlled by ringers in Co. Down on 29 July 1988. It had a brood patch suggesting it had bred locally. A young **Sedge Warbler** ringed at Icklesham on 24 July was killed on a road in Noviercas, Soria, Spain (41°42'N, 02°02'W) on 17 August, having travelled 1045 km. Of three birds that were controlled by bird ringers in the Finistère *département* of France during their southerly migration, one had originally been ringed as a first-year on 15 September 1987; the other two fledged in 1988. All three were ringed at Icklesham. On 16 August a first-year was controlled at Christchurch, Dorset, having been ringed at Icklesham on the previous day; it had moved almost due west a distance of 173 km.

Among 23 **Reed Warblers** reported perhaps the saddest was a young bird in a cage in Agadir, Morocco (2426 km) on 6 September 1987 which had been ringed at Icklesham on 25 July the same year. On 12 August 1981 a first-year was ringed at Church Norton; nearly seven years later on 11 June 1988 it was controlled by a ringer at Fordingbridge, Hants.

Two **Reed Warblers** at the extremes of their breeding range were, from the north, a first-year ringed on 8 August at Haverton Hall, Cleveland which had moved to Icklesham by 5 September, and, from the west, another first-year ringed at Portmore, Co. Antrim on 23 August and controlled by a ringer at Litlington on 4 September. Both could have been on passage when ringed, in the absence of evidence of breeding.

A first-year **Lesser Whitethroat** ringed at Cissbury on 8 September 1986 was found dead in Egypt. This late report gave the date found as 15 October 1987. This is the 9th British-ringed Lesser Whitethroat found in Egypt. The species migrates along the eastern end of the Mediterranean and is thought to winter in Ethiopia and Sudan (Mead and Clark, 1988).

Another late report was of a young **Garden Warbler** ringed at Beachy Head on 14 August 1986 which was found dead, poisoned, in Onda, Castellon, Spain on 15 November 1987.

News of 17 **Blackcaps** was received. Two are of special interest. The first was a first-winter female ringed in a Bexhill garden on 12 February 1987 and subsequently controlled by a ringer in Norfolk on 17 January 1988. Ringing recoveries suggest that Blackcaps wintering in Britain come from central European breeding populations; in fact all current evidence supports this and there have been no winter recoveries of British- or Irish-bred birds in the British Isles to date (Berthold and Terrill, 1988). The second Blackcap establishes a new longevity record for the species. KP35134, a female ringed in its first year on 22 September 1977 at Beachy Head, was reported freshly dead on 6 June 1988 in Cadiz, Spain. This is an increase of nearly 4 years on the previous record!

Another Blackcap ringed at Hodcombe, Beachy Head on 29 September 1987 was controlled at Retford, Notts, on 30 April 1988; on its own a fact with no great significance; however, a **Chiffchaff** ringed at the same place on the following day was controlled also at Retford on 2 April 1988.

A **Chiffchaff** from Beachy Head, ringed on 26 September 1987, was controlled by French ringers at St Jouin-Bruneval, Seine-Maritime (121 km) on 2 April 1988. Also on 2 April another Chiffchaff was ringed at Shoreham on its way to Blåvand, Denmark where it was controlled on 26 June.

Of 13 **Willow Warblers** reported a young bird ringed at Plumpton on 23 June 1987 which was killed by a cat at Bolbec, Seine-Maritime, France, on 30 March was the only report of this species from abroad in 1988.

A **Firecrest** ringed at Beachy Head on 15 October was controlled on Lundy Island in the Bristol Channel on 26 October. It is probable that this bird was a newly arrived continental migrant when it was ringed and that its westward movement is typical, as central southern and south-west England is where most winter sightings occur. A total of 147 Firecrests have been ringed in the county in the last 10 years and this is the third report. The other two were ringed in the month of October (1979 and 1982 respectively) in the Beachy Head area; one was controlled near Bournemouth in the following March and the second was found dead near Burford, Oxfordshire in the February following.

Two **Spotted Flycatchers** from the same brood at Rotherfield, ringed on 28 June 1987, returned to Britain in 1988. One was found dead at Maidstone, Kent on 20 June and the other, also dead, was at Wadhurst on 5 July. On 15 September 1984 a Spotted Flycatcher was ringed at Beachy Head; this individual was another cat victim on 15 July 1988 at Spalding, Lincs.

A **Magpie** ringed at Beachy Head on 16 September 1976 achieved a good age: it was found dead 12 years later on 30 September at Pevensy. The current national longevity record for this species is 15 years.

Peter Davis has drawn my attention to two **Goldfinch** retraps. They were adult males ringed on 9 and 21 January 1987, feeding on evening primrose at Marley Common. One was found feeding on the same plants on 20 January 1988 as was the other a week later. Peter says that Marley Common is not a usual Goldfinch wintering area and furthermore he can find no records of this species wintering in the same area in successive years.

A **Siskin** ringed on 5 April 1986 at East Grinstead was controlled at Buckie, Grampian Region on 24 April 1988, presumably close to its breeding site.

Three **Redpoll** recoveries had connections with the north-west. An adult male ringed on 4 July 1987 at Appleby, Cumbria was at Icklesham on 5 November 1988; a young female ringed at Marley Common on 8 November 1987 turned up at Heysham, Lancs. on 7 May 1988; and a young male ringed on 18 September 1988 near Warrington, Cheshire was controlled at Icklesham on 18 October.

Finally, a first-year **Reed Bunting** with a Swedish ring was controlled at Icklesham on 30 October. Unfortunately full ringing details have not yet been received. This is only the fourth control of a Swedish-ringed Reed Bunting in the British Isles. There have been four from Norway and one from Germany.

Stop Press

News has just been received that the Penduline Tit ringed at Icklesham last October (p.72) has been controlled in May in central Sweden. This is a preliminary report; details are still awaited.

ACKNOWLEDGEMENTS

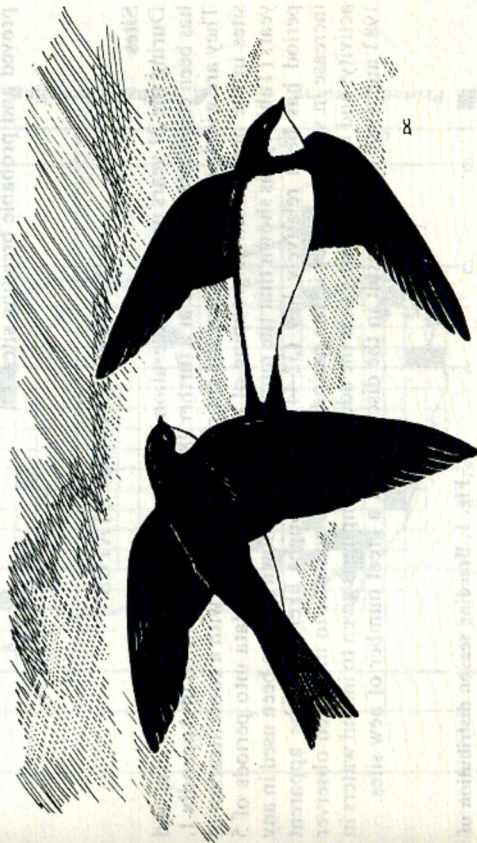
I thank all those ringers who have sent me their 1988 records. I would especially like to thank Roy Leverton, who collated the records and prepared the reports for the last 10 years, for the clear and concise way he kept the records and the advice he gave me. Thanks also to Stephen Rumsey whose advice and assistance have been invaluable.

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Editorial footnote: I would just like to add my personal thanks to Roy Leverton, whose annual contributions to the Bird Report since 1979 have been invaluable. His summaries, promptly extracted from a daunting volume of data, have combined scholarship, humour and a scientific curiosity in inimitable style. Thank you, Roy! PFB



THE LITTLE GREBE IN SUSSEX Part I — Breeding Distribution and Status, 1966-1986

by S. W. M. Hughes

The Little Grebe *Tachybaptus ruficollis*, although easily identified, is an inconspicuous species which is often overlooked and consequently under-recorded. This is regrettable, as in Sussex it is a surprisingly scarce species for which little detailed information is readily available. This paper is the first of two which, it is hoped, will partially remedy this situation and encourage others to pay more attention to the species in the future.

INFORMATION SOURCES AND METHODS

The primary source of breeding season information has been the Sussex Ornithological Society files, and the annual reports for Rye Harbour Local Nature Reserve (1971-1986). These have been supplemented with information from the survey of inland waters in 1983 and 1984 and the Little Grebe survey in 1985. In the latter an attempt was made to achieve a countywide census, by visiting all waters from which the species had been reported in the last 30 years, during a single weekend (1-2 June). The plan for this study also included visits during the weekends of 20-21 April, 13-14 July and 17-18 August; however, as a census was not the prime objective of these extra visits, information was accepted if they were made within 7 days before or after the specified dates.

Little Grebes breed from March to October. For the purpose of this paper, a *proved breeding site* has been defined as a water for which specific evidence of breeding has been obtained, e.g. nest building, a sitting bird, unfledged young, etc. In the absence of such evidence, only pairs present at a site in May or June have been assumed to be holding a breeding territory and under these circumstances breeding has been classified only as *probable*. The term *breeding site* covers both proved and probable breeding sites.

DISTRIBUTION AND STATUS

Sites

During the 21 years under consideration breeding has been proved at 57 sites and has been considered probable at a further 28. The 85 sites are listed in Appendix 1. They are widely distributed over the entire county (Fig. 1) with a concentration of sites in the north-west. A grouping of the site occupancy data into periods of 5 years (Table 1) has shown that the number of sites known to have been used in any period has been relatively low (32-44). It is thought likely that the apparent increase in site occupancy in the period 1976-1980 was due to increased observer activity, and it is noteworthy that the additional emphasis given to inland waters in 1983 and 1984 did not result in the discovery of a great number of new sites.

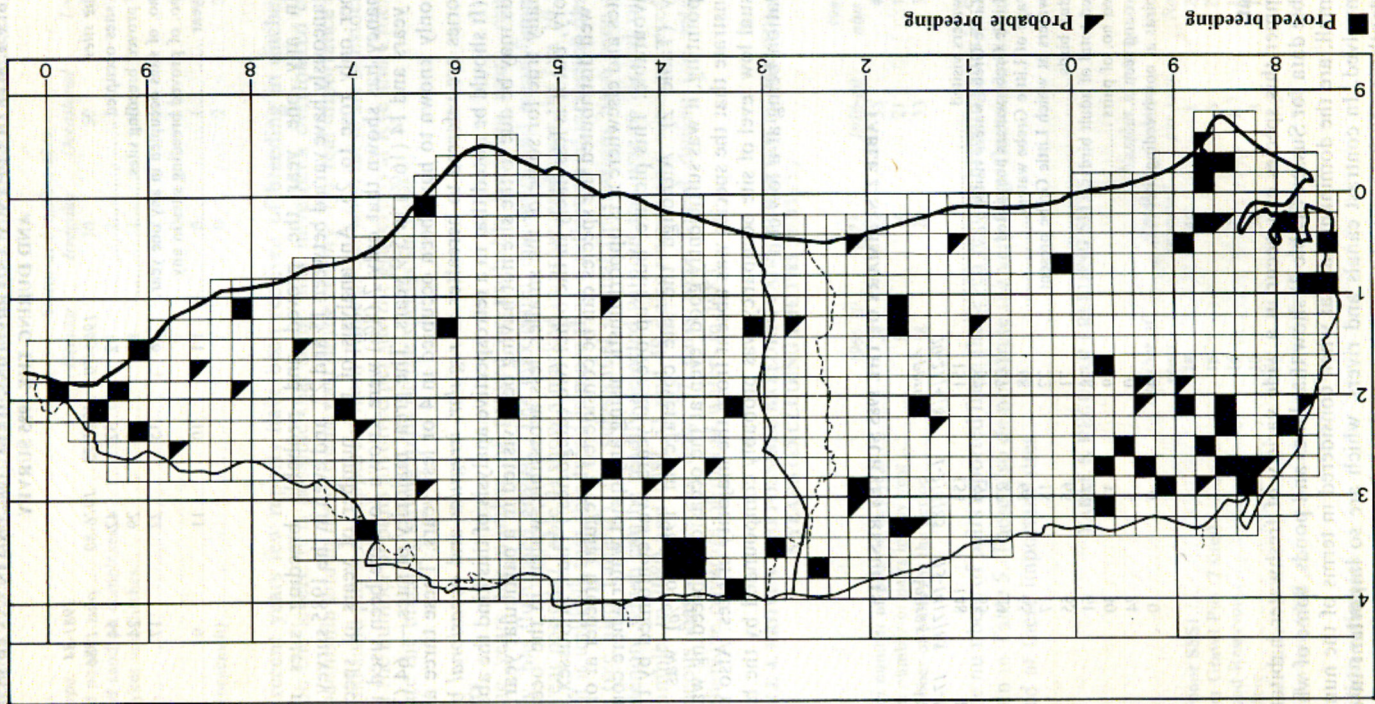


Fig. 1. Breeding season distribution of the Little Grebe in Sussex, 1966-1986.

TABLE 1. SITE OCCUPANCY AND BREEDING DATA (1966-1986) IN 5-YEAR PERIODS AND DURING THE 1985 SURVEY

Breeding sites	1966-70					1971-75		1976-80		1981-84		1985 survey
	32	32	42	44	32	42	44	24	17	9		
No. of sites occupied	32	32	42	44	32	42	44	24	17	9	13	
No. of proved breeding sites	18	19	29	24	15	22	17	17	17	9	13	
Max. no. of sites occupied in any one year	16	15	22	17	10	11	9	9	9	9	13	
Max. no. of proved breeding sites in any one year	11	10	11	9	10	11	9	9	9	9	13	

In any one year the proved and probable breeding sites reported spontaneously have varied between 15 and 22, and even in the 1985 survey year the number only rose to 25. An analysis of the number of years of specific site occupancy has shown that only 7 (8%) were known to have been used in 10 or more years and 14 (16%) in 5-9 years. The great majority of sites — 64 (76%) — were only known to have been occupied in 4 or less years. These three arbitrary categories are referred to hereafter as *regular*, *irregular* and *occasional* breeding sites. (It should be noted that in a retrospective analysis of this kind the absence of records may be due to the site not having been visited in a particular year. This is especially true for some of the smaller, less accessible, waters in the 'occasional' category, but it is less likely in the other two categories.) Thus, in Sussex, despite being well distributed the species can be considered a regular breeder at only very few sites and elsewhere it is opportunistic, using any quiet water where conditions are favourable. This picture, built up over 20 years, was confirmed by the 1985 survey (Table 2). Although the site coverage in 1985 (68%) was slightly disappointing, it was sufficiently good, even at the occasional breeding waters, to demonstrate that the species was absent from the majority of sites. Also in 1985, the usual low level of site occupancy was probably compounded by the breeding population being at a low ebb.

TABLE 2. SUMMARY OF THE 1985 SURVEY RESULTS

	Approx.		Approx.		Approx.	
	20-21/4/85	1-2/6/85	13-14/7/85	17-18/8/85	17-18/8/85	17-18/8/85
No. of waters visited	151	153	148	141	141	141
No. of Little Grebe waters visited	57	57	55	51	51	51
No. of Little Grebe waters not visited	27	27	29	33	33	33
% coverage of Little Grebe waters	68	68	65	61	61	61
No. of waters at which Little Grebe present	22	18	17	18	18	18
Total adult birds	71	65	55	68	68	68
Estimated total of adult birds	78	75	61	69	69	69
Estimated no. of pairs	39	37	30	32	32	32
No. of young seen	0	5	24	39	39	39
No. of birds at non-breeding sites	4	0	0	1	1	1

Habitat

In summer this species can occur in a wide variety of freshwater habitats. The available data for Sussex (Table 3) show that lakes and ponds, some of which are very small, are the dominant habitat when considered in terms of the number of sites involved. In contrast canals and rivers, which are so important in several other southern counties, are of little consequence.

TABLE 3. BREEDING DISTRIBUTION BY HABITAT IN SUSSEX (1966-1986)

Habitat type	Status as breeding sites			Total
	Regular	Irregular	Occasional	
Lakes and ponds	2	10	50	62
Gravel and sand pit complexes	3	1	3	7
Drains, dykes and ditches	0	1	6	7
Reservoirs	1	2	1	4
Canals	0	0	1	1
Rivers	0	0	1	1
Lagoons (brackish)	1	0	2	3

In recent years few reports have been received of breeding in ditches and drains on the levels. It is possible that some may have been overlooked on the Selsey peninsula and in the extreme east of the county. The real importance of the gravel and sand pits is not apparent from Table 3, but when these are considered in terms of the number of pairs involved per site the gravel pits at Rye and Chichester constitute the breeding strongholds of the species in Sussex.

Numbers

Over the years the number of proven or probable breeding pairs, reported annually, has fluctuated greatly. The maximum, minimum and mean figures for four 5-year periods (Table 4) show a marked improvement over the last 10 years. Whilst it is unlikely that this trend is more than a reflection of increased observer activity (see also Table 1), the substantial annual fluctuations have been a real phenomenon, which can be readily detected without recourse to formal surveys. For example, in 1980 and 1981 51 and 49 pairs respectively were reported on a spontaneous basis, whereas only 37 pairs were found during the relatively comprehensive coverage of inland waters in 1983.

TABLE 4. PROVEN AND POSSIBLE BREEDING PAIRS REPORTED IN PERIODS OF 5 YEARS (EXCLUDING THE 1985 SURVEY)

	1966-70	1971-75	1976-80	1981-84 plus 1986
Maximum number of pairs in any year	26	27	55	49
Minimum number of pairs in any year	11	14	21	18
Mean number of pairs for the period	18	20	33	33

The numbers of pairs reported from the seven regular breeding sites in Sussex are given in Table 5. These also demonstrate the very large fluctuations that have occurred at these important sites.

TABLE 5. REGULAR BREEDING SITES

Site	Number of pairs		Range
	years reported	Mean per year	
Rye Harbour SSSI	18	8	2-14
Chichester Gravel Pits (2 sites)	16	5	2-12
Weir Wood Reservoir	16	1.7	1-4
Forest Mere	10	3	1-4
Swanbourne Lake	10	1.2	1-2
Pagham Harbour LNR	7	3.7	2-6

Population estimates

A summary of the results of the first survey of this species in Sussex in 1985 is

TABLE 6. PERCENTAGE DISTRIBUTION OF LITTLE GREBE BROOD SIZE IN SUSSEX (1966-86) COMPARED WITH SIMILAR DATA FROM AVON

	1	2	3	4	5	6
176 broods, Sussex.....	50	29.5	12.5	5.7	1.7	0.57
116 broods, Avon (Vinitcombe, 1982).....	47.4	32.8	17.2	1.7	0.9	—

Breeding success

This species has a habit of subdividing broods, resulting in either overestimates of the numbers of broods or underestimates of young per brood, particularly at the waters where more than one or two pairs are present and where it is difficult for the observer to know exactly how many pairs have young. For this reason, when examining brood size (Table 6), the records from Rye Harbour and Chichester GP have been excluded. Nevertheless the data for these two sites do allow some tentative estimates of breeding success (Table 7).

TABLE 7. BREEDING SUCCESS AT RYE HARBOUR AND CHICHESTER GP

	Number of years	Number of pairs	Breeding success	
			Mean	Range
Rye Harbour.....	13	129	1.55	0.125-2.43
Chichester GP.....	8	53	1.53	0.4-3.75

The outstanding figure of 3.75 at Chichester GPs occurred in 1980 when the population was at a high level and when the breeding conditions were optimal, allowing 8 pairs to raise 30 young. The next year 12 pairs raised only 5 young. The maximum figure of 2.43 at Rye in 1977, when 7 pairs raised 17 young, coincided with a slightly above average figure (1.67) at Chichester GP when 6 pairs raised 10 young.

Breeding success in 1985

To obtain accurate breeding data it is necessary to follow each pair throughout the season from early March until late October. The 1985 survey fell short of this ideal; nevertheless it was the first prospective study of the species in Sussex. Together with the additional information submitted by members for the months September to November, useful results were obtained and are reported here as a basis for future reference.

At the time of the census (1-2 June) only 5 young were seen (Table 2), but the numbers visible by mid-August had increased to 39 and by the end of November the total had reached 51. The main breeding effort took place in July and August, with a substantial follow-up of late broods in September and October. Prior to mid-August only 21 of the 40 pairs were thought to have been successful and at least 4 pairs had been double-brooded. It is not clear if the broods seen later were further second, or possibly third, broods or possibly first successes for pairs which had failed totally earlier in the season. Overall, it appears that in 1985 about 40 pairs were present and of these approximately 32 produced a minimum of 51 young. This gives an overall breeding success of 1.2, or of 1.6 in terms of those pairs known to have stayed on territory throughout the entire season.

DISCUSSION

Walpole-Bond (1938), writing pre-war, stated that for as long as he could remember the Little Grebe had always been a scarce breeding species in Sussex,

given in Table 2, and details for individual sites are given in Appendix 2. Based on the estimated and actual counts on the census dates and also on the first survey date, when the species was more conspicuous, it was concluded that the breeding population in 1985 was approximately 40 pairs.

As judged by the combined numbers at Rye Harbour and Chichester GP, which totalled only 7 pairs (cf. an average of 13 pairs — Table 5), 1985 was a poor year. The census, unfortunately, coincided with a population low following a series of moderately severe winters and under these circumstances it is unlikely that better coverage, of some of the occasional breeding sites, would have produced more than a very few extra pairs. Based on these results and the unsolicited observations made in the 1980s, the county population might occasionally reach 80 pairs or more, and a figure of 60-65 could be regarded as about average.

Dispersal

Although the numbers of adults at each water did not remain constant throughout the entire period of the 1985 survey, the amount of between-water movement documented in July and August was negligible compared with that recorded for Great Crested Grebes during the same period, which tend to move to larger waters or to the coast to moult (Hughes, 1987). The number of waters supporting Little Grebes in July and August was less than in April and June but this was probably due to the deteriorating coverage of some breeding sites. This is also supported by the fact that at each count approximately twice as many non-breeding waters were visited and even in mid-August only one bird was found away from a proved or probable breeding site. Later in the year a more general dispersal does occur and this aspect will be considered in a subsequent paper.

BREEDING DATA

The breeding data in the Society's files are limited; whilst such data do not allow accurate calculations of breeding success, they do provide a rough index of productivity and demonstrate very clearly the considerable fluctuations that occur.

Brood Size

In this species the parents carry the young on their backs for about 12 days, thus reported brood sizes normally relate to medium or large sized young. Assuming that the major chick mortality has already occurred, reported brood sizes do give some indication of likely fledging success which will be fractionally lower.

On an annual basis the mean brood size has varied from 0.6 to 2.45 (mean 1.77 from 176 broods over 21 years). Of particular interest has been the fact that some of the largest broods recorded, e.g. 4-6 young, have been seen at occasional breeding sites, usually in the first known year of occupation. These opportunistic pairs have often succeeded in raising two good broods in the same year. Recent examples, in 1986, were single pairs at Woolbeding and Copthorne which were seen with broods of 3 + 6 and 4 + 4 respectively. Known second broods have accounted for less than 10% of the total broods reported, but it is of interest that many of these double-brooded pairs have been reported with 3 or more young in each brood. This is of particular relevance in the context of the percentage distribution of the reported brood sizes given in Table 6.

and des Forges and Harber (1963) confirmed that its status had not changed post-war. Shrub (1979) was the first to attempt to quantify the breeding population; based on information for the years 1970-76, he concluded that it was less than 100 pairs at approximately 36 sites, not all of which were used annually. The results of the current review, based on a larger perspective, suggest that the population fluctuates markedly, perhaps between c.40 and c.80 pairs, and that c.60-65 might be considered an average breeding population. Only 7 sites are used regularly and another 14 less regularly but many other sites have been used occasionally on an opportunistic basis.

The unsuitability of Sussex rivers was commented on by Walpole-Bond, who considered them not broad enough, presumably in the upper reaches, and lacking adequate marginal cover. Likewise most Sussex ditches and drains were said to lack the features which made the similar habitat on Romney Marsh so attractive to the species at that time. When studying Walpole-Bond one is left with the impression that a few sites must have been lost on rivers and marshes. However, it is probable that these losses have been more than made up for by the new sites provided by post-war gravel extraction. Walpole-Bond identified only one inland water breeding site, thus it is impossible to make comparisons with the current status on inland waters. However, there is a general feeling among some birdwatchers with long experience in their local areas that the species has been lost from a few medium-sized waters which are now used extensively by anglers from the new conurbations. The species is certainly far less tolerant of disturbance than many others. This may also explain why Little Grebes occasionally appear, and breed successfully, on a few quiet waters which are too small for club fishing and which are, apparently, too small to support them for more than one or perhaps two consecutive years.

The Sussex literature provides no breeding data suitable for comparative purposes, and surprisingly few national data are available in standard works of reference. For Sussex the mean medium to large brood size over 21 years has been calculated as 1.77, which compares with 1.73 given by Vinicombe (1982), based on 116 broods studied over 9 years, and with 1.8 given by Cramp and Simmons (1977), based on 31 broods immediately prior to fledging. No figures are available for breeding success, but Vinicombe calculated that 75% of pairs breed in any one year, based on an estimated fledging rate of 1.73, this gives an overall productivity of 1.3 young per pair. This is similar to the 1.2 calculated for the 1985 breeding season in Sussex and to the 1.55 and 1.53 calculated for the Rye and Chichester gravel pits, respectively.

On the information available there is no evidence of any long or short term change in status of the Little Grebe as a breeding species in Sussex. Whilst it was regrettable that the 1985 survey coincided with a population low, it did allow the documentation of a poor year with some accuracy. The suggested peak levels for the species are clearly less reliable and will require confirmation in the future. Notwithstanding its obvious shortcomings it is hoped that this paper will encourage others to take an interest in the breeding status of this species and that it will provide a basis for future population estimates.

Postscript

Since this paper was prepared breeding has been confirmed at five other sites. Single pairs have bred on the old canal at Waltham Brooks (TQ 024156) in 1986 and 1987, at Buchan Park, Crawley (TQ 244345) in 1987 and at Ashburnham

Forge (TQ 684160) in 1987. At Pebsham, 2 and 3 pairs in 1986 and 1987, respectively, have bred on small pools (since filled in) on a municipal rubbish dump. Newly created habitat at Icklesham has also attracted the species and at least one of the 4 pairs there in 1988 bred successfully. In addition breeding has now been proved at West Durrington where previously it had only been suspected.

SUMMARY

During the years 1966-86 the Little Grebe was proved to breed at 57 sites in Sussex and breeding was considered probable at another 28. The number of sites known to have been used in any year has only rarely exceeded 25 and regular breeding has been confined to only 7. Elsewhere breeding has been very irregular and opportunistic. The species has been shown to be widely distributed on lakes and ponds and has used a variety of other freshwater habitats. The greatest numbers occur on the gravel pits in the west and east of the county. A census in June 1985, when the population was known to be low, found about 40 pairs. Earlier data suggest that 80 pairs may be exceeded in good years and that 60-65 pairs might be an average breeding population level. Although pairs take up territories in April, early breeding attempts have only rarely been successful. Most broods have been seen in July and August and some new broods in September and October. The average brood size has varied from 0.6 to 2.45 (mean 1.77) annually and the mean breeding success rates at Rye and Chichester have been estimated at 1.55 and 1.53 respectively. In 1985 the countywide breeding success was 1.2 young per pair. On the evidence available for the period 1966-86 there has been no change in breeding status, nor is it likely that there has been any change over the long term, although variations may have occurred locally.

ACKNOWLEDGEMENTS

I wish to thank Mrs Sheila Allwood for typing the manuscript and David Codd for drawing the map. However, this paper would not have been possible without Miss Jean Stacey's long-term observations at Chichester GPs and the assistance of the following members who participated in the 1985 survey: A. J. Allaway, J. Ashbee, P. C. Bance, M. I. Banks, G. Binns, K. Blackman, F. W. Blake, P. F. Bonham, G. F. Boniface, R. C. Cain, L. G. Catlin, H. A. R. Cawkell, Lord Chelwood, B. R. Clay, D. Codd, Mrs J. Colebrook, C. B. Collins, J. E. S. Cooper, P. D. Daughtrey, G. des Forges, Miss A. de Potier, F. W. Dougherty, Mrs J. H. M. Edom, C. J. Fox, A. Grant, Miss B. Graves, M. P. Hall, S. G. Hamilton, R. G. Harris, M. J. Horsfall, D. C. Lang, L. Lerner, R. Leverton, A. H. Lloyd, R. M. Lord, Dr V. U. Lutwyche, W. B. Marrison, M. C. Martin, J. N. McKelvie, O. Mitchell, Miss L. Moffat, R. Morris, Dr J. A. Newnham, S. J. Newton, A. L. Norman, L. W. Osborne, D. J. Pankhurst, D. R. Park, J. Park, G. E. Poole, C. J. Raymond, R. J. Saunders, Miss E. M. P. Scott, M. Scott-Ham, R. Sellens, Mrs A. Simpson, Miss B. Spencer, D. Smith, D. Sneller, G. W. Stallibrass, Mrs R. Stevens, Miss C. A. Swinson, Miss C. A. Taylor, G. Thomas, Mrs M. D. Thurlay, G. E. Tomalin, P. C. Turner, Mr & Mrs D. A. Wall, N. E. Wall, J. Willsher, P. J. Wilson and Dr B. J. Yates.

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APPENDIX 1. PROVED AND PROBABLE BREEDING SITES OF THE LITTLE GREBE IN SUSSEX (1966-86)

	Car.	Car.
Thorney Deepes	SU 755045 B 3 *	Knepp Lake TQ 158214 B 3 *
Stubbmere	SU 758082 B 3 *	Wiston Pond TQ 164127 B 2 *
Aldsworth Ponds	SU 763088 B 2 *	Warnham Pond TQ 165322 B 3 *
Hurst Mill	SU 765210 b *	Steyning TQ 170115 B 3 *
Chidmere Pond	SU 780220 B 2 *	Widewater TQ 200043 b *
Coombe Pond	SU 791036 B 2 *	White Vane TQ 211316 b *
Forest Mere	SU 815268 b *	Holme Farm Pond TQ 212283 B 2 *
Cooks Pond	SU 832263 B 2 *	Ifield Pond TQ 245364 B 3 *
Milland Place	SU 832282 B 3 *	Newtimber Place TQ 268138 b *
Iping Common	SU 843223 b *	Oldhouse Warren TQ 297347 B 3 *
Chithurst	SU 848237 B 3 *	Clayton Reservoir TQ 315139 B 3 *
Oakhurst, Sidlesham	SZ 848963 b *	Copthorne GC TQ 321393 B 3 *
Chichester Canal		Vale Bridge TQ 322213 B 3 *
Bakers Farm, Sidlesham	SZ 852965 B *	Paxhill Park TQ 356265 b *
Stedham Sand Pit	SU 855216 B 2 *	Fen Place TQ 361366 B 3 *
Slathurst Pond	SU 855273 b *	Gravetye Manor TQ 365340 B 2 *
Inholms Copse	SU 856263 B 2 *	Upper Latchetts TQ 387268 b *
Pagham Hbr. Lagoons	SZ 856963 B 1 *	Weir Wood Reservoir TQ 395348 B 1 *
Old Salthouse Pool	SZ 860974 B *	Boyles Farm TQ 397363 B 3 *
Redford Pond	SU 864258 B 3 *	Newnham Lake TQ 401295 b *
Bremere Rife	SZ 868980 B 3 *	Glyndebourne TQ 455107 b *
Severals	SZ 873943 b *	Cackle Street TQ 455266 B 3 *
Chichester GPs	SU 874035 B 1 *	Maresfield Lake TQ 463299 b *
	884052 B 1 *	Possingworth Park TQ 542209 B 3 *
		Hellingly TQ 603129 B 3 *
		Flattenden Lake TQ 635280 b *
		Crumbles GPs TQ 638018 B 3 *
		Bowl Water TQ 680330 B 2 *
		Brightling TQ 687223 b *
		Darwell Reservoir TQ 715212 B 2 *
		Powdermill Lane TQ 742147 b *
		Powdermill Reservoir TQ 800195 b *
		Shornden Park TQ 802105 B 3 *
		Alexandra Park TQ 806109 B 3 *
		Brede Levels TQ 848175 b *
		Shepherds Farm TQ 872244 b *
		Pett Pools TQ 900150 B 3 *
		Iden Park TQ 912236 B 3 *
		Rye Harbour TQ 930180 B 1 *
		Money Penny Pit TQ 946208 B 3 *
		East Guldeford Level TQ 950215 B 3 *
		Broomhill Level TQ 984199 B 3 *

Key to site category:

- B Sites where breeding proven
- b Sites where breeding probable
- * Site visited in 1985 survey
- 1 Regular breeding site
- 2 Irregular breeding site
- 3 Occasional breeding site

APPENDIX 2. COUNTS AND ESTIMATES OF ADULT LITTLE GREBES IN SUSSEX IN SPRING 1985

	20-21/4/85			1-2/6/85			20-21/4/85			1-2/6/85		
	C	E		C	E		C	E		C	E	
Thorney Deepes	3	4	5	6	B		2	2	0	0	0	
Chidmere	2	2	0	0	0		—	—	—	—	—	B *
Aldsworth Ponds	4	4	3	4	B		3	4	4	4	4	B
Redford Pond	2	2	1	2	B		2	2	2	2	2	B
Minepit Copse	4	4	—	—	—		3	4	6	8	8	B
Forest Mere	8	8	7	8	B		2	2	0	0	0	†
Slathurst Pond	1	2	1	2			2	2	2	2	2	B
Inholms Copse	4	4	4	4			0	0	2	2	2	B
Pagham Harbour	2	2	0	0			0	0	0	0	0	B *
Bremere Rife	0	0	0	0	B *		2	2	0	0	0	†
Chichester GPs	6	8	9	10	B		2	2	2	2	2	2
Cochet Farm	2	2	2	2	B		—	—	—	—	—	—
Graffham Common	1	2	0	0			12	12	11	12	12	B
Chingford Pond	0	0	1	1			—	—	—	—	—	—
West Durrington	2	2	1	2			—	—	—	—	—	—
TOTALS							71	78	65	75		

In addition at least 2 pairs were present at Scotney GP on the Sussex/Kent border.

Key:

- C Count of adults seen
- E Estimated total adults
- Not visited
- B Successful breeding proved
- * Bred later in the year; birds may have been overlooked earlier
- † Breeding has never been 'proved' or 'probable' at this site

S. W. M. Hughes, 6 West Way, Slinfold, Horsham, West Sussex.



Rarity notes: It is intended to publish some details of all 'firsts' for Sussex and any other rarity records of unusual interest. These may dwell on appearance, behaviour and/or circumstances: there is no set format! The first two notes concern birds portrayed on our covers for 1987 and 1988; the Penduline Tit, although a county 'first' followed 12 others during 1966-86. All contributions for this series will be very welcome. *Ed.*

Note: Penduline Tit at Pett Pools, October 1987 — new to Sussex

Date: Sunday, 4th October, 1987.

Time: 16.35-16.50 B.S.T.

Place: Pett Level, near Winchelsea, East Sussex. Reeds on S. edge of pool nearest shore road.

Weather: Sun, slight haze, temperature 15-16 deg. C, light easterly wind.

Description of bird: Very small, about size of Coal tit (*Parus ater*). Crown and nape grey, chin and throat greyish-white, prominent black mask most striking feature. Mantle and scapulars rich chestnut-brown. Flight feathers appeared bluish-grey in sunlight. Underparts pale buff. Tail noticeably shorter than Bearded tit (*Panurus biarmicus*), a species well known to several of the observers, and more akin to true tits (*Parus spp*). Dark legs. Small, pointed grey bill.

At first glance the overall impression of colour was as of a minute Red-backed shrike (*Lanius collurio*).

The bird was very active, flicking its tail and flitting about tit-like in the reeds. Several times it stood in full view and was seen head-on and sideways-on.

General: The bird was found by Mrs J. M. Butt, a member of a visiting party from the Bournemouth RSPB Group. It was watched at about 40 metres through five telescopes from 20x to 40x and through binoculars by 17 observers, at least six of whom are experienced and competent birdwatchers, one being a recorder for Dorset Environmental Records Committee. All 17 have been watching birds for at least five years. The bird was well seen by all and positively identified, as it could not have been mistaken for any other species.

Jillian Bale

Note: Little Bittern at Hove, March 1988

On Wednesday 30th March 1988 I received a telephone call from Paul James, to the effect that he had a Little Bittern in his kitchen. I was somewhat surprised at this information but dashed off to his house and was amazed at the sight of a superb male Little Bittern sitting in a cardboard box.

Paul, it transpired, had been driving along the main seafront road in Hove that morning and had found the bird completely exhausted (it had probably crossed the Channel earlier in the day) in the gutter. It was very fortunate in being found by a birdwatcher and not by the wheels of a vehicle. He drove home with the bird in the erect alarm-posture on the back seat of his car! (Perhaps we should all carry an empty cardboard box with us for such eventualities.)

The bird was checked over and there were no visible signs of injury, so we assumed that it was just very tired and probably hungry. Soon, however, it began to show signs of recovery, becoming more alert and active, and attempting to spear any passing fingers with its bill. It then leapt out of its box and flew into the lounge taking up its alarm-posture in the corner of the room. At this we decided that the bird was uninjured and considered suitable sites for possible release. We agreed upon Oreham Pond and released the Little Bittern there that afternoon. It flew to the far side of the pond and, after a few minutes acclimatisation, caught and ate its first newt. The bird seemed to settle down quite well that afternoon and local birdwatchers were told of its presence. It became available on *Birdline* allowing many hundreds of observers to see this extremely obliging bird over the Easter Bank Holiday weekend.

The bird was perfectly fit and able to fly, but seemed to prefer to clamber, sometimes appearing quite ungainly, amongst brambles and bushes. It seldom failed when hunting, almost every 'strike' catching a newt which it would then shake and kill before swallowing.

March 30th is an extremely early date for a record of Little Bittern, but around the same time another was seen on the Isles of Scilly, although that bird was unfortunately later found dead. The Oreham Pond Little Bittern constituted the 29th record of this species in Sussex. It was last seen on 12th April.

Dave Sadler

(With acknowledgement to "Birding World", May 1988, from which the above note has been abridged. *Ed.*)

Note: American Golden Plover at Church Norton, September 1988 — new to Sussex

During the morning of 15 September 1988 I visited Church Norton where an unidentified plover, found by J. Brain, had been present the previous day. On my arrival I quickly located the bird feeding with a flock of about 100 Golden Plovers (*Pluvialis apricaria*) on a stubble field close to the road. It was slightly smaller than the Golden Plovers but the most obvious feature was a broad white supercilium which extended from the forehead to the sides of the neck. I also noted that the wing tips extended well beyond the tip of the tail when the bird was resting and that the upperparts were colder and greyer with fine yellow and white blotches. The underparts were pale grey with a prominent black patch on the belly and black undertail coverts.

The above features confirmed the identification of the bird as an adult American Golden Plover (*P. dominica*), moulting into winter plumage. Later in the morning the flock flew from the stubble field towards Sidlesham Ferry, allowing a clear view to be obtained of the wholly dull grey underwing. At 16.00 BST it was relocated in its original field where it remained until 18.45 when it flew off with the Golden Plovers to roost in Pagham Harbour.

The bird was again present the following day, allowing many birders to observe it closely. It remained until 17 September when it was disturbed by ploughing of the stubble fields.

This constitutes the first county record of this species, formerly known as Lesser Golden Plover and until recently considered conspecific with Pacific Golden Plover (*P. fulva*). It has been accepted by the *British Birds Rarities Committee*.

T. J. Edwards

over one million) it is remarkable that in over 70 years there has been no recorded connexion between Sussex and Scotland, Wales or Ireland. Equally surprising is that only single movements have been recorded to or from Cornwall, Devon, Wiltshire, Suffolk and Norfolk, each less than one day's flying time away for a Starling travelling at 60 km per hour.

Unfortunately it is rarely possible to determine from these recoveries whether a bird was of Sussex origin or a visitor from elsewhere in Britain or the Continent unless it was ringed as a nestling, a recently fledged juvenile, or a breeding adult. Although the nests are easy to find, the hole is usually just too small or too deep to allow the young to be extracted, so most Starlings are ringed when fully grown. Like many hole-nesters, Starlings have a long fledging period and the young are well developed by the time they leave the nest. After a relatively short period of parental care they become independent, and by late May large flocks composed solely of juveniles are a feature of open country.

The ringing recoveries suggest that these flocks are highly nomadic over the ensuing summer and autumn, especially along an east-west axis, up to a distance of at least 50 km, with some birds moving 100 km or more. Many of the exchanges between Sussex and Kent happened at this time, and birds ringed as May juveniles reached Avon and (untypically) Cleveland in July or August the same year. This summer dispersal of juveniles occurs in all European populations (Feare, 1984).

Otherwise, the direction and timing of movements is quite varied and defies meaningful analysis. Large-scale cold weather movements towards the milder southwest, as undertaken by many thrushes and other partial migrants, seem not to occur in Starlings, perhaps because winter food supplies for so versatile a species are generally plentiful (Feare, 1984) irrespective of the weather. Nor can many of the movements be interpreted as Continental immigrants moving on the same winter or returning to a different region in a subsequent year: of 42 movements exceeding 100 km, the ringing or recovery dates suggested that only 11 (26%) could possibly have involved winter immigrants. It seems that these may be faithful to a particular wintering area in Britain from year to year (though not necessarily an exact site), otherwise many more recoveries connecting Sussex with the Midlands and East Anglia would be expected.

Foreign movements

The first Starling ringed in Sussex to be recovered abroad was a bird caught at Fishbourne on New Year's Day 1928 and shot at Gdansk in Poland in July the same year. This must have been very exciting at the time, though today it would be thought almost routine. Figure 2 shows the foreign movements which have now been recorded. For birds ringed in Sussex this is almost certainly an accurate reflection of the true pattern. Although the chances of a bird being found and reported may vary in different countries depending on population density, standards of education, and hunting traditions, such biases are small in western Europe. Even in lightly populated regions Starlings are closely associated with habitations; while only 18% of those recovered were shot or killed, with no obvious bias as to country. But for Starlings ringed abroad and found in Sussex, different levels of ringing distort the picture, hence so many with Belgian rings have been found here.

In general Figure 2 shows the origins of immigrant Starlings wintering in Sussex, though some could have been ringed or recovered on the Continent while still on passage, especially in the Low Countries where migration is highly

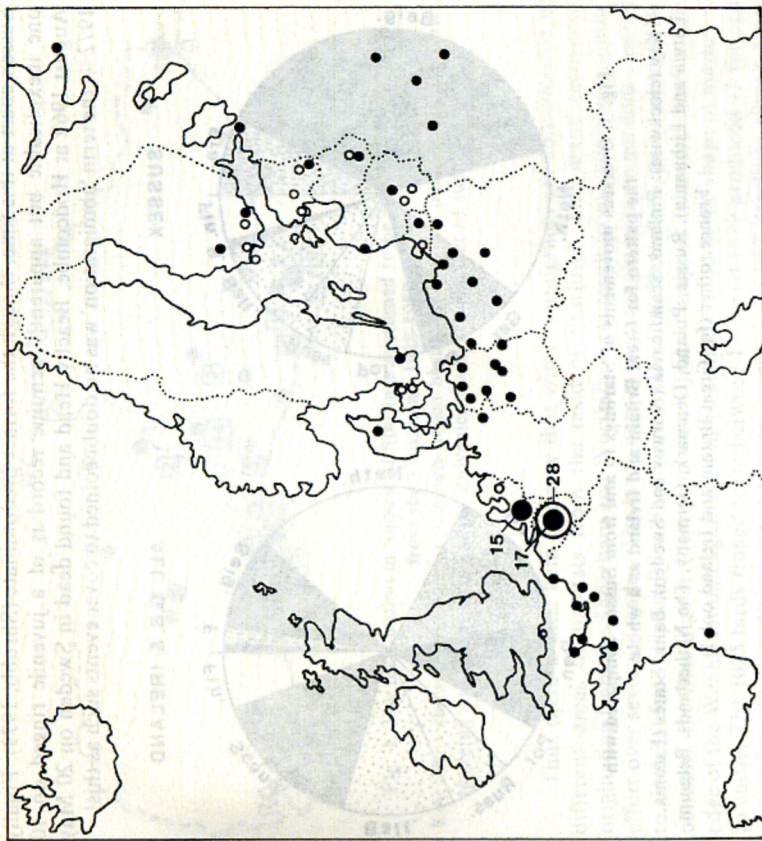


Fig. 2. Ringing (○) or recovery (●) locations of Starlings moving between Sussex and the Continent, 1928-1987.

concentrated (Feare, 1984). However, it can be seen from Table 1 that some birds known to be involved in a foreign movement were present in Sussex in spring and summer. Of the 12 birds present in Sussex between May and August, eight moved to or from Belgium and two to France, and there is clear evidence that some Sussex-bred Starlings cross the Channel especially during the summer dispersal of juveniles. A nestling ringed near Felbridge in May 1939 was found in Belgium that August, while five ringed in Belgium in autumn have been recovered in Sussex in late May and June, presumably having returned to their natal area. Most of the recoveries in France suggest emigration by English birds, not necessarily young ones, in October or November; both arrivals and departures are noted at the

TABLE 1. MONTHS WHEN STARLINGS INVOLVED IN A FOREIGN MOVEMENT WERE KNOWN TO BE IN SUSSEX

No.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
6							6	25	28	21	16	—
2				3								
1												
3												
5												
6												
25												
28												
21												
16												
—												

Sussex coast at this time, though the former predominate (Shrubb, 1979). Finally one inexplicable but apparently genuine record is of a juvenile ringed on 10 August 1969 at Hodcombe, Beachy Head and found dead in Sweden on 20 May 1972 — the term 'abmigration' was no doubt coined to cover events such as this!

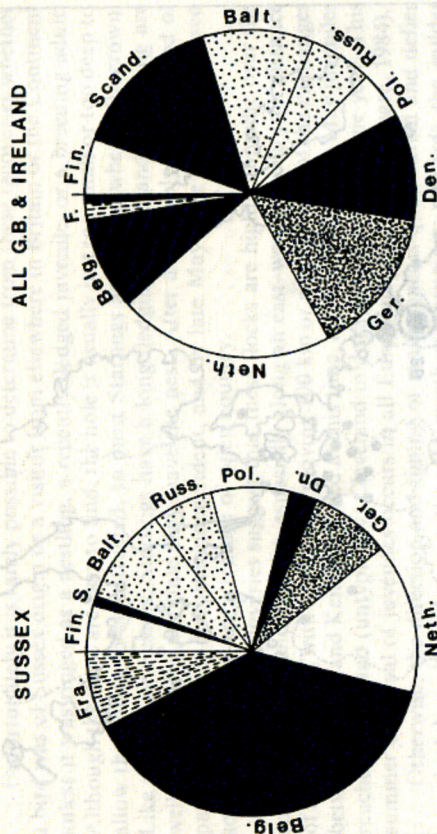


Fig. 3. Overseas movements of Starlings to and from Sussex compared with the pattern for Great Britain and Ireland as a whole.

Key (clockwise): Finland, Scandinavia (Norway and Sweden), Baltic States (Estonia, Latvia and Lithuania), Russia, Poland, Denmark, Germany, The Netherlands, Belgium, France, other (for Great Britain and Ireland only).

Figure 3 compares the pattern of movement to and from Sussex with the overall pattern for Great Britain and Ireland (Mead and Clark, 1986). Starlings migrate very much along an east-west axis, so Sussex logs far more movements to and from Belgium and France, and far fewer from Denmark and Scandinavia, than the national average. Birds from Norway and Sweden winter mainly in Scotland and northern England, crossing the North Sea directly, and there is no evidence that they ever reach Sussex. Yet birds from Finland do: three ringed as nestlings have been found here, with two movements the other way. Presumably they follow a different route, via the Baltic and North Sea coasts. The most remarkable recovery of all concerned a bird ringed at Alfriston on 2 February 1972 which was found 2903 km away at Arkhangel'sk in May the same year, close to the northern limit of the species' range.

The distribution of winter immigrants in Sussex

Figure 4 maps the locations in Sussex of all Starlings presumed from ringing recoveries to be of foreign origin. The finding locations for foreign-ringed birds are less subject to bias than the ringing sites, which merely show the past or present distribution of active ringers specialising in Starlings (though they may have chosen to do so because large numbers were available). In general the map reflects both the human population density (and hence the chance of a ringed bird being found) and the distribution of all Starlings in Sussex as shown by the Winter Atlas (Lack, 1986). This distribution is itself influenced by human activities both rural and urban.

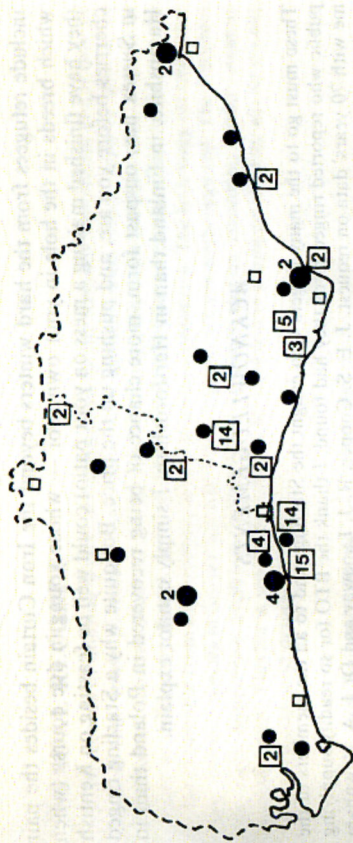


Fig. 4. The distribution in Sussex of Starlings presumed to be winter immigrants from the Continent, 1928-1987.

Key: Dots show the locations of foreign-ringed birds found by the public. Squares show trapping sites generating foreign movements and the number of such movements.

Thus there is little firm evidence that winter immigrants are concentrated in different areas or habitats from the resident Starlings. The many recoveries originating from the Shoreham and Worthing areas result from sustained trapping effort over several decades. The birds were mainly caught in town gardens coming to artificial food, especially in hard winters (Dr J. A. Newnham, pers. comm.). By contrast, the Starlings at Plumpton were rural — trapped in a stockyard at the edge of the Weald, though again coming to artificial food in the shape of maize fed to cattle. The 1025 birds ringed there between 1969 and 1979 produced 13 foreign recoveries. At East Grinstead, however, none of the 967 Starlings ringed from October to March between 1982 and 1987 has yet been found abroad; this may be because Continental populations have recently declined markedly (Feare, 1984). Certainly foreign Starling recoveries from birds ringed in Sussex seemed more frequent during the 1960s (22) and 1970s (27) than subsequently.

Table 1 suggests that few immigrants are present before December, but bias is possible if trapping success or mortality were higher in midwinter and early spring. Some of the few October and November movements almost certainly involved emigration by British birds, and the late arrival of wintering immigrants may be genuine. However, there is no doubt that these remain almost to the end of March, still with dark beaks and legs at a time when most of the resident population is coming into breeding condition, although there is too much individual variation to make precise estimates of the proportion of immigrants feasible. Nor can this be reliably estimated from the recoveries without knowing the circumstances under which the birds were ringed. At a very rough guess perhaps half the Starlings in Sussex are foreigners in some winters, fewer in others. Certainly the recoveries suggest that some birds which wintered one year in Sussex stayed in Belgium in another: some of these may have been from further east.

CONCLUSION

Whatever the finer details it is safe to say that the Starlings squabbling on your bird table in January, demolishing the food meant for your favourite Robin, may

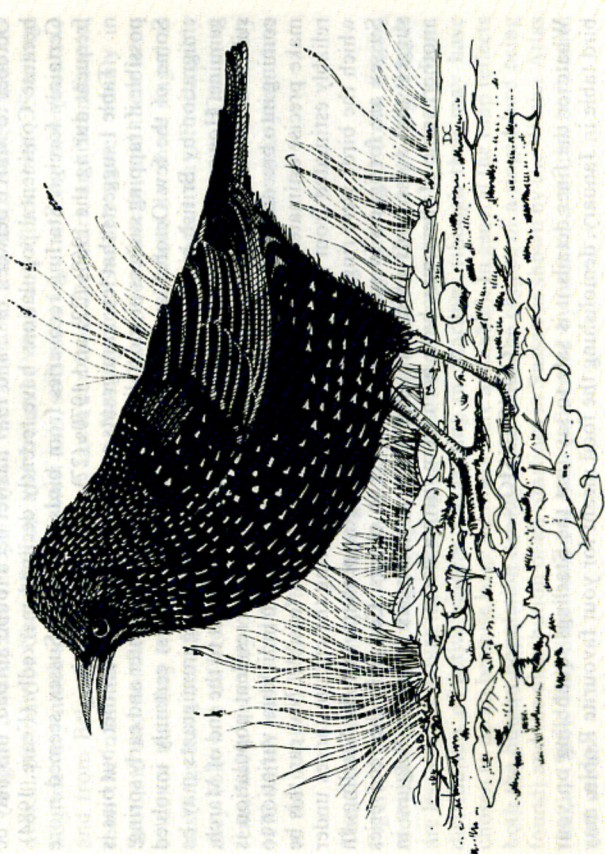
include refugees from the hard winters beyond the Iron Curtain besides the pair which breeds in the hole in your own roof — whose young in due course (when they have finished making a mess on your patio) could well be feasting on Kentish cherries before you are, and pushing up the price. But quite why a Starling ringed in Sussex has, on past form, more chance of being recovered in Poland than in Hampshire, in Finland than in Hertfordshire, I simply cannot explain.

ACKNOWLEDGEMENTS

These must go to the many ringers who caught the Starlings and to all the members of the public who reported ringed birds they had found. I thank the BTO for so readily supplying me with 70 years' data on request. J. E. S. Cooper, R. J. Lanaway and Dr J. A. Newnham supplied additional information and helpful comments.

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UNUSUAL RECORDS

All records of unusual species are considered by the Records Committee and it may be assumed that those published have been fully authenticated. Such reports should be submitted on separate sheets or on special forms available from the Recorder. Reports of rarities as defined by *British Birds* should be submitted on, or in the same format as, the forms obtainable from the Secretary to the Rarities Committee. The following list embodies those unusual species in Sussex for which descriptions are normally required. The Recorder may seek supportive evidence in the case of other species occurring under unusual circumstances. This list is not exclusive and any observer in doubt or needing advice on any species should send details accordingly:

All divers (except Red- and Black-throated on the coast)
 Red-necked and Black-necked Grebes
 All shearwaters and petrels (except Fulmar)
 Shag (inland records only)

Bittern
 Purple Heron
 White Stork
 Spoonbill
 Whooper Swan
 Bean and Pink-footed Grease
 Garganey
 Red-crested Pochard
 Ferruginous Duck
 Honey Buzzard
 Red Kite
 Marsh and Montagu's Harriers

Goshawk
 Rough-legged Buzzard
 Osprey
 Peregrine
 Quail
 Spotted Crake
 Cormorant
 Crane
 Stone Curlew
 Kentish Plover
 Dotterel

Temminck's Stint
 Pectoral Sandpiper
 Bull-breasted Sandpiper
 Phalaropes
 Pomarine and Long-tailed Skuas
 Sabine's, Ring-billed, Iceland and Glaucous Gulls
 Roseate Tern
 Black Guillemot
 Little Auk
 Puffin

Hoopoe
 Wryneck
 Woodlark and Shore Lark
 Richard's, Tawny and Water Pipits
 Waxwing
 Dipper
 Bluethroat
 Warblers: Cetti's, Savi's, Aquatic, Marsh, Icterine, Melodious, Dartford, Barred, Yellow-browed
 Red-breasted Flycatcher
 Golden Oriole
 All shrikes
 Raven
 Screech Owl
 Scarlet Rosefinch
 Lapland, Cirl and Ortolan Buntings

In addition: all unusual races of Yellow Wagtail and Rock Pipit.