

Sussex Bird Report 2021



Sussex Ornithological Society

Sussex Ornithological Society

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Sussex Bird Report

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Contents

3	Editorial
6	Review of 2021
13	Classified Records: Introduction
19	Systematic List
190	Escapes and Introductions
195	Breeding Bird Survey results
200	Sussex Winter Bird Survey results
204	First and Last Migrant Dates
206	Wealden Heaths Breeding Bird Survey
207	Finders' Accounts of Notable Species
212	Sussex Ringing Report
223	Dartford Warbler territories on the Ashdown Forest in 2021: Martin Jeffree
232	2020-2021 Sussex Honey-buzzard survey: Mark Mallalieu & Mike Scott-Ham
243	A survey of breeding Common Nightingales and Turtle Doves in Chiddingfold Forest: Ken W Smith & Linda Smith
246	Sussex urban nesting gull survey 2019-2021: Alison Giacomelli
253	SOS Marsh Tit Survey 2020-2021: Rich Black & Matthew Twydell
259	Photographers' Gallery
269	Unusual Records
271	Contributors, acknowledgements and surveys
285	Index to species in the Systematic List



Avocet, Medmerry, 30 May (Bob Brewer)

Sussex Bird Report 2020 – amendments and corrections

In the Long-tailed Tit species account on page 145, the final sentence should have read “During the GBW they were recorded in 61% of gardens surveyed with an average peak count of four. [JA Hobson]”

The Northern Treecreeper account on page 161 should have read “The individual found at Patching on 28 Dec 2019, the first for Sussex, remained until 7 Jan. [M Mallalieu]”

Photographs

2021 marked the beginning of our return to “normal”. Although as our cover star (captured by Marc Read) will remind some readers, restrictions still compromised movements early in the year and the appearance of a White throated Sparrow in the county was probably the last “must see” bird to test people’s resolve of “should I shan’t I”... Thankfully this smart little visitor from North America stayed long enough to outlast Covid lockdown and allowed an appreciative audience to enjoy it singing in the early spring Sussex sunshine, almost cheerfully heralding back our normal birding lives.

As always, a huge appreciation to all who submitted photos and artworks for the report. It’s a cliché, but it would not be what it is without your kindness and generosity and excellent images. I’d like to thank you all on behalf of myself and the whole editorial team. I look forward to seeing your submissions for the next report.

Laurence Pitcher, Photographic Editor.

Cover photo: *White-throated Sparrow, Barcombe, April 2021 (Marc Read)*

Editorial

Mark Mallalieu

I hope that you enjoying delving into this 74th edition of the Sussex Bird Report. The design team has refreshed the look, but otherwise the report follows closely the format of the previous one with some changes in the order of the systematic list. If you would like to suggest any improvements, please email me at breditor@sos.org.uk.

The COVID-19 pandemic resulted in a period of lockdown from early January to late March, again affecting survey work, ringing and birdwatching activities though not as severely as in 2020. The effect of this is only mentioned in a few species accounts where it was considered particularly important to do so.

Acknowledgements

John Newnham's work as Database Manager is the single most important element of report production and I would like to thank him for his dedication and also thank Alex Glossop, who took on some elements of database management in 2021.

Clare Buckle, Assistant Editor, very efficiently handled the allocation of species accounts and tracked their production and editing, again greatly lightening the Editor's workload. Graham Hughes, Assistant Editor, produced several standard elements of the report and read through the entire final report.

Thanks are due to the team of both loyal and new species account writers produced the drafts: CJR Barfield, VP Bentley, R Black, D Brothwell, DK Campbell, MJ Chattaway, J Curson, MC Daniel, C Davis, MR Eade, J Franklin, A Glossop, D Green, AC Gutteridge, TD Hallahan, PK Holland, A House, DH Howey, BGR Ives, P James, M Mallalieu, JA Newnham, M Orchard-Webb, GA Osbourne, TW Parmenter, E Paxton, PJ Plant, AH Podmore, A Rowe, T Seabrook, KW Smith, L Smith, A Thomas, G Turvey and JH Whitman.

Primary proofreading was undertaken by Joanne Chattaway, Graham Hughes and Simon Linington. I am grateful to them for their diligence and hard work. Thanks also to Owen Mitchell, who offered many helpful suggestions on the species accounts. In addition to his other key contributions, John Newnham also undertook a check of every species account, updated the arrival and departure tables, produced the maps, and wrote the Classified Records and Contributors & Acknowledgements sections. I am grateful to Matt Eade for writing the Review of the Year for the third and last year.

Papers were written by: Rich Black and Matt Twydell on Marsh Tits, Martin Jeffree on Dartford Warblers in Ashdown Forest, Ken and Linda Smith on breeding Nightingales and Turtle Doves in Chiddingfold Forest, Alison Giacomelli on urban nesting gulls and Mark Mallalieu and Mike Scott-Ham on Honey-buzzards. The finder's account for the Northern Mockingbird was written by Christine Lindsay, that for the White-throated Sparrow by Catherine and Robert Anscombe and Simon Linington, and for the 2011 Long-toed Stint by Peter Johnson and Jacob Everitt. Helen Crabtree provided the BBS data, Christine George the paper on the Sussex Winter Bird Survey and Alan Perry the Wealden Heath Breeding Birds data. Together these pieces of work add greatly to the interest of the report and I am most grateful to the authors.

The Society is most grateful to Robert Greenhalf (www.robertgreenhalf.co.uk), Stephen Message (www.message-wildlife-art.co.uk) and Jan Wilczur (<https://www.artnorfolk.co.uk/jan-wilczur.html>) for allowing us to use their superb paintings in the report.

Many high quality photographs were offered for publication and Laurence Pitcher recommended those to be used in the main report and for the front cover. Thanks to Laurence for this work and to Chris Barfield for his work with Laurence on the front cover.

Chris Barfield typeset the whole publication, which is both demanding and time-consuming. Many thanks to Chris for again taking on this vital task. Thanks to Swallowtail Print Limited, our new printers and to Swarovski Optik, our advertisers.

Some errors and omissions will inevitably remain and I take responsibility for those. Do please let me know of any that you notice at the email address above. If you would like to help in any way with future Sussex Bird Reports, please contact me at the email address in the first paragraph.

Abbreviations			
AON	Apparently occupied nests	m	metres
BBRC	British Birds Records Committee	MP	Mill Pond
BBS	Breeding Bird Survey	N,E,S,W	compass points
BGBW	Big Garden Bird Watch (RSPB)	nc	no count
BOU	British Ornithologists Union	nr	near
BOURC	BOU Records Committee	o/s	offshore
BTO	British Trust for Ornithology	R	River
CP	Country Park	Res	Reservoir
DEFRA	Dept. for Environment, Food & Rural Affairs	RG	Ringing Group
Fm	Farm	RS	Ringing Station
GBW	Garden Bird Watch (BTO)	RSPB	Royal Society for the Protection of Birds
GC	Golf Course	SSSI	Site of Special Scientific Interest
GP	Gravel Pit(s)	SOSRC	SOS Records Committee
ha	hectares	SWBS	Sussex Winter Bird Survey
Hbr	Harbour	SWT	Sussex Wildlife Trust
hr	hours	WeBS	Wetland Bird Survey
IOC	International Ornithological Congress	WHBBS	Wealden Heaths Breeding Bird Survey
IUCN	Int. Union for the Conservation of Nature	WTW	Water Treatment Works
km	kilometres	WWT	Wildfowl and Wetlands Trust
LNR	Local Nature Reserve		



Review of 2021

Matt Eade

In 2021, 258 species of bird were recorded, a slight reduction from the 2020 total of 262. The year will be remembered for two North American passerines, a **White-throated Sparrow** at Barcombe Cross and a **Northern Mockingbird** at Pulborough. The former, found in February, remained on site until April and was admired by myriads of birdwatchers and photographers alike. The latter was an incredible discovery and was the first county record, though only remained on site for one day, albeit showing very well! Other highlights in the year were the county's fourth **Blyth's Reed Warbler**, the fifth record of **Collared Pratincole** and the county's sixth **Rustic Bunting**.

January to March

The year began mild, then at the start of February temperatures plummeted to single figures, although the prevailing south-westerlies soon arrived again. March proved predominantly cold and wet, but by the month's end, temperatures abnormally started to hit the low twenties, triggering spring migration.



Yellow-browed Warbler, Patching, 28 March (Karen Weston)

Scarcities lingering from 2020 included the **Black Brant** in Chichester Hbr, **Glossy Ibis** at Marsh Fm (Sidlesham) and **Richard's Pipit** near Church Farm Lane (Sidlesham), all seen up to 4 Jan. Grey geese continued their presence in the county from the previous year and involved a minimum of 420 **White-fronted Geese** spread across the county on 1 Jan; other species remained typically rare, comprising a single **Tundra Bean Goose** at Ardingly Res on the 11th and 18th, with five of this species and the only **Pink-footed Goose** of the year at Pevensey Levels in February. Only one **Smew** was recorded at this season, a redhead at Bewl Water on two dates in February.

White-winged gulls in recent years have proved scarce, but the year got off to a fine start in January with a first-winter **Iceland Gull** coming into the gull roost at Arlington Res on the 1st and 2nd. Two further **Iceland Gulls** were located in this period with individuals at Shoreham Hbr on 18 Jan and Portobello (Telscombe Cliffs) on 9 Feb. Seawatchers at Selsey Bill got their year off to a fine start too as a **Sooty Shearwater** flew past on the 24th – the first January record for Sussex!

Large winter gatherings are impressive sights and the following species had noteworthy site numbers: 4379 **Eurasian Wigeon**, 1640 **Eurasian Teal** and 4267 **Lapwings** in the Arun Valley, and 8871 **Brent Geese**, 2219 **Dunlins** and 1342 **Redshanks** in Chichester Hbr, though numbers of most species were significantly fewer than in 2020. A maximum count of 15 **Bewick's Swans** was made from the Arun Valley, a slight increase from recent years.

Two overwintering **Yellow-browed Warblers** were found, at Hambrook (Chichester) on 25 Feb and another at Patching between 8 Mar and 19 Apr. Less expected (though perhaps not a major surprise due to the regularity with which vagrant Siberian warblers are found during the winter in the county), a **Pallas's Warbler** seen at Chailey on 23 Jan remained on site until 10 Feb. North American passerines, however, are different entirely, so a male **White-throated Sparrow** that took up residence at Barcombe Cross on 3 Feb was an incredible record and a strong contender for many to be the highlight of the year. This beautiful bird stayed on site into April allowing hundreds of birdwatchers to catch-up with this species which was last recorded in Sussex 53 years ago.

A **Red-necked Grebe** was offshore at, variously, Selsey Bill, Rustington and Goring on several dates between 14 Feb and 7 March, with two at Arlington Res on 26 Feb. Individual **Puffins** flew past Portobello and Goring during the first half of February, proving that this month is the optimum time to encounter this auk in the county. **Common Redpolls** (actually very scarce in Sussex) were seen in a garden at Fernhurst from 7 to 11 Feb and at Rusper on 4 Mar. A **House Martin** at Crowborough on the 15th, a **Barn Swallow** at Hambrook on the 17th, a **Sand Martin** at Weir Wood Res on the 27th and a **Northern Wheatear** at East Ashling (Chichester) on the 28th were the only summer migrants to arrive in February.

Further summer migrants arrived in March with the first **Little Ringed Plover** at Rye Hbr on the 6th, an **Osprey** at Weir Wood Res on the 9th, a **Garganey** at Sidlesham Ferry on the 17th, a **Willow Warbler** at Bexhill on the 23rd, an early **Hobby** at Weir Wood Res on the 25th, **Common Terns** past three seawatching locations on the 26th, while the 29th had the first **Cuckoo** and **Common Redstart** (both at Beachy Head), **Sedge Warbler** (Pagham Hbr) and **Tree Pipit** (Ashdown Forest). A very early **Little Tern** was at Pagham Hbr on the 30th where the first **Yellow Wagtail** was also present, and a **Common Whitethroat** at Knepp Estate also on this day.

A **Little Bunting** discovered on the 10th at Warnham LNR remained on site until 18 Apr and was the first of three records this year; this period concluded on the 31st with a **Richard's Pipit** at Sidlesham Ferry, possibly the same as the one seen nearby up to 4th Jan.

Unfortunately, yet another year passed where there were no signs of any **Willow Tits** present in the county and there were also no **Great Grey Shrikes** to enliven winter heathland walks.

April to June

An Arctic airflow prevailed almost throughout the entirety of April, with temperatures scarcely reaching the mid-teens, whilst May improved dramatically, especially towards the end of the month and into June with a south-easterly airflow ensuring favourable birding conditions.

Other summer migrants yet to arrive during April were a **Reed Warbler** at Thorney Deepes and a **Pied Flycatcher** at Birdham on the 1st, a **Nightingale** at Barcombe Cross on the 2nd, a **Grasshopper Warbler** at Pagham Hbr on the 3rd, two **Garden Warblers** at Mannings Heath on the 6th, a **Turtle Dove** in off the sea at Selsey Bill on the 10th, two **Lesser Whitethroats** at Rye Hbr on the 11th, **Arctic Terns** at Splash Point (Seaford) and Weir Wood Res on the 19th, a **Whinchat** at Medmerry on the 20th, four **Black Terns** past Worthing on the 24th, while unexpected spring migrants included a **Wryneck** at Sheepcote Valley (Brighton) on the 22nd.

Two **Glaucous Gulls** were welcome finds in April after a blank year in 2020, with individuals at Seaford Head and off Lancing on the 2nd and 3rd respectively. The last **Red-necked Grebe** sighting was of one flying east at Selsey Bill on 4 Apr. The peak count of southbound **Water Pipits** was seven at West Rise Marsh (Eastbourne) on 17 Apr. Amongst the myriad highlights during the first half of April, were a **Red-rumped Swallow** at West Rise Marsh on the 3rd and 4th, two early **Wood Warblers** at Woodingdean (4th) and Coldwaltham (7th) and a **Blue-headed Wagtail** on Pevensey Levels on the 11th, the remarkable find of a **Northern Mockingbird** at Pulborough on the 8th took full precedence. A first for Sussex, this bird took all by surprise and remained loyal (and showed very well) to the banks of the R Arun, but was not seen subsequently.



Red-rumped Swallow, West Rise Marsh, 4 April (Laurence Pitcher)

A total of three **Hoopoes** (individuals at Winchelsea, Beachy Head and Rottingdean) in April was far fewer than the unprecedented year of 2020; other notable sightings included a drake **Ring-necked Duck** at Honer Res (Pagham) on the 20th to 24th, a **Serin** at Selsey Bill on the 26th and a pair of **Black-winged Stilts** that arrived at Rye Hbr on the 27th and remained to breed, being last seen on 10 Jul. Although four chicks hatched, it is not known whether any survived.

April is the optimum month for spring seawatching in Sussex, with notable daily counts of 938 **Bar-tailed Godwits** past Splash Point on the 21st and 25 **Pomarine Skuas** (24th), 265 **Little Gulls** (26th) and 2500 **Arctic Terns** (28th) past Brighton Marina. Into May, notable records comprised a **Cory's Shearwater** past Selsey Bill on the 2nd and a **Long-tailed Skua** past Splash Point on the 10th – the latter on a classic date for observing this Arctic breeder rarely seen in Sussex.

In May, overshooting migrants included a **Melodious Warbler** at Beachy Head on the 9th, two **Golden Orioles** (Church Norton on the 9th and 10th and Beachy Head on the 19th), six **Bee-eaters** (four at Brighton on 18th and two at Beachy Head on 30th), three **Serins** (two at Selsey Bill on the 7th

and at Beachy Head on the 26th), a **Red-backed Shrike** at Bexhill-on-Sea on the 29th and a **Marsh Warbler** at Beachy Head on the 30th, plus, a most bizarre finding of a singing male **Blyth's Reed Warbler** in Pavilion Gardens, close to the city centre of Brighton on the 29th.

A breeding plumaged female **Grey Phalarope** at Chichester Hbr briefly on 28 May was a most unexpected record but sadly the bird didn't linger for all to see, while nearby, up to two **Roseate Terns** were present at Pagham Hbr throughout much of May and June.

June was highlighted by the brief presence of two **Collared Pratincoles** at Castle Water (Rye Hbr) on the 5th and were the first to be seen in the county since 2001. The almost annual eruption of **Rose-coloured Starlings** into the UK from the main breeding locations in south-east Europe briefly touched Sussex in early June, with no fewer than four individuals found, at Roedean on the 1st, Crawley on the 5th to 9th, Beachy Head on the 5th and Rustington on the 9th. A male **Red-backed Shrike** was at Steyning Levels on 3 Jun and **Golden Orioles** continued their good spring with an individual at Ringmer on the 1st, a singing male at West Wittering on the 15th and another at Cissbury on the 19th. A **Kentish Plover** was at Jury's Gap on the 18th and the month ended with two **Roseate Terns** in Newhaven Hbr on the 29th.

July to September

A heatwave warning was issued in the month of July and the fine weather continued into August. Although September remained mostly hot and pleasant, the latter half of the month saw windy conditions dominate, triggering a terrific seabird movement as a result.

July started with a female **Red-backed Shrike** at Iford Brooks on the 1st and a **Glossy Ibis** which spent four days at Pagham Hbr from the 10th was even seen passing Selsey Bill on the 12th. A **Hooded Crow** took up a prolonged residence at a Polegate service station from the 13th and remained on site well into 2022 and clearly enjoyed the local produce. A **Black Stork** flew over Rye Hbr on the 15th and another **Kentish Plover** was found, at Pagham Hbr on the 16th.

Successful breeding included four pairs of **Stone-curlews**, at least four pairs of **Little Ringed Plovers**, two pairs of **Cattle Egrets**, two pairs of **Long-eared Owls** (the true breeding numbers being much higher), at least two pairs of **Yellow Wagtails**, seven pairs of **Honey-buzzards** and a staggering 25 pairs of **Goshawks**. **Lesser Spotted Woodpeckers**, after a few years when no nests were located, had an exceptional year (or at least their researchers did!) with no fewer than three active nest sites found.

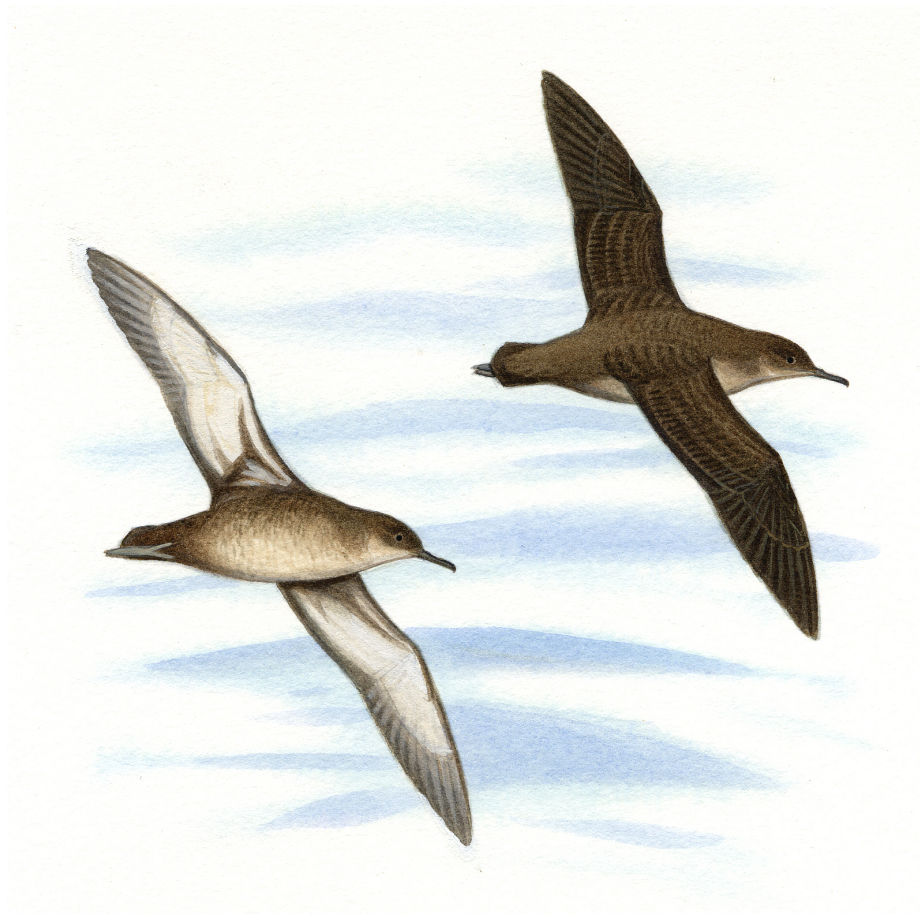
In addition, three pairs of **Black Redstarts** were located and included the first inland breeding attempt in over ten years, at Gatwick Airport; also, **Hawfinches** were confirmed to have bred at their prime location of Westdean Woods, but sadly, no breeding was confirmed for **Wood Warbler** or **Grasshopper Warbler**.

August started well with a **Black Kite** at Cuckmere Haven on the 4th. The month is renowned for its autumn migration as the majority of our summer migrants depart during this month. Significant totals included a minimum of 40 **Pied Flycatchers** spread across the county, with maximum counts of three recorded. Only two **Wood Warblers** were seen on passage with one at Balcombe on the 14th and one at Pett Level on the 16th - as August again proved to be the favourable month to encounter these delightful *Phylloscopus* warblers on their autumn migration. Other southbound scarcities included three **Temminck's Stints** with individuals seen at Pulborough Brooks (13th), Sidlesham Ferry (16th to 22nd) and at Cuckmere Haven (27th), although the highlight for the month was a terrific flock of eight **Bee-eaters** flying east over Beachy Head on the 26th. It was a good autumn for **Wrynecks** with an above average 18 found mainly on the coast between 26 Aug and 21 Sep.

Final dates for departing summer migrants in September were a **Common Nightingale** (Beachy Head), a **Nightjar** at Heyshott and a **Cuckoo** at Uckfield on the 6th, three **Little Terns** at Rye Hbr on the 15th, a **Little Ringed Plover** at Rye Hbr on the 22nd, a **Common Redstart** at Cissbury on the 29th and a pair of **Turtle Doves** in Ringmer on the 30th, the latter having remained onsite “all summer”.

The first **Short-toed Lark** since 2008 spent an afternoon at Climping Beach on 16 Sep but had gone the following day. Further scarcities in September involved two **Red-backed Shrikes**, one at Pagham Hbr between the 5th and the 12th and one at Thorney Island on the 22nd, two **Pectoral Sandpipers**, with one at the traditional location of Pulborough Brooks from the 12th to the 22nd and the other at Rye Hbr on several dates from the 15th to the 28th; and a **Purple Heron** at Pagham Hbr on 12 Sep that remained until 19 Oct.

The end of September will mostly be remembered for the sheer abundance of **Balearic Shearwaters** which tracked westwards, especially on the 28th when at least 150 passed Beachy Head (a county record), whilst 26 also flew past Fairlight and 14 past Widewater (Lancing).



Balearic Shearwaters, by Stephen Message

October to December

October was dominated by a persistent south-westerly airflow, although there were periods of calm and change in wind direction. In November, Storm Arwen stole the headlines but in December the weather had calmed down, although sunny spells were scarce. Temperatures remained mild for the time of year.

The productive spells of seawatching in September continued into October with the 2nd seeing two **Leach's Petrels**, three **Sooty Shearwaters** and 13 **Balearic Shearwaters** past Cow Gap (Beachy Head) during a spell of fierce southerly winds, the **Leach's Petrels** compensating in a year where no **Storm Petrels** were seen. **Balearic Shearwaters** were noted on a number of dates throughout October, and lastly a juvenile **Long-tailed Skua** flew past Widewater (Lancing) on the 29th. Although not strictly seen on a seawatch, the year's only **Sabine's Gull** spent a short duration at Sovereign Hbr (Eastbourne) on the 31st.

Final dates for departing summer migrants in October were a **Garden Warbler** at Beachy Head on the 7th, a **Spotted Flycatcher** and **Sand Martin** at Pagham Hbr and a **Grasshopper Warbler** at Pett Level on the 9th, a **Lesser Whitethroat** at Pagham Hbr on the 13th, a **Sedge Warbler** at Pett Level on the 14th, a **Hobby** at Amberley Wild Brooks on the 16th, a **Reed Warbler** at Pett Level on the 18th, a **Willow Warbler** at Itchenor on the 22nd, a **Garganey** at East Grinstead and a **Tree Pipit** at Old Lodge LNR on the 23rd, a **Whinchat** at Cuckmere Haven on the 24th, a **Yellow Wagtail** at Cissbury on the 25th and an **Osprey** at Cuckmere Haven on the 30th.

Due to the persistence in south-westerly winds throughout October, very few scarce passerines were found and to highlight this, no **Yellow-browed Warblers** were seen or heard this autumn. A **Rustic Bunting** trapped and ringed at Charleston Reedbed on the 13th and only the county's sixth record could have saved the autumn for many if it hadn't disappeared instantly. The lingering **Purple Heron** at Pagham Hbr and a **Glossy Ibis** at Combe Valley CP from 30 Oct to 2 Nov provided some compensation for the lack of passerines, although two **Hoopoes** (individuals at Brighton on 24th and Pagham Hbr on 31st) were unexpected. Late departing summer visitors in November included the last **Common Whitethroat** at Climping Gap on the 3rd, **Northern Wheatear** at Beachy Head on the 4th, **House Martin** was at Seaford on the 13th, **Ring Ouzel** at Upper Beeding on the 19th, while one or two **Barn Swallows** were still at Sidlesham at the end of the year.

A **Richard's Pipit** was a good inland record at Pulborough Brooks on 3 Nov, but it wasn't until the middle of the month when eastern passerines finally started to trickle into the county, with a **Pallas's Warbler** at Beachy Head on the 10th and 11th and a **Dusky Warbler** that caused much head-scratching among its observers at Newhaven on the 14th being the most notable. During this period, inland locations also had their share of eastern vagrants with a **Little Bunting** at Ashdown Forest on 14 Nov and another at Iping Common on 11 Dec – both birds lingering into 2022. A **Shorelark** first sighted at Sovereign Hbr (Eastbourne) on 7 Nov was re-found at Pevensey Bay on 10 Dec and prolonged its stay into 2022. Three **Glossy Ibises** at Medmerry on the 7th and then at West Wittering until the 9th and a **Crane** at Pulborough Brooks on the 12th were other noteworthy records.

What is at times the highlight of the latter stages of the autumn migration is the sheer number of **Woodpigeons** which gather in our skies before heading south, as shown on in November on the 2nd and 3rd with a combined total of 64,530 flying west over Brighton. A **Red-necked Grebe** was at Pett Pools between 8 and 10 Nov and there were several sightings of another in the Selsey Bill area from 11 to 30 Dec. The only white-winged gulls of this period were an **Iceland Gull** at Sovereign Hbr on 29 Nov and a **Glaucous Gull** at Climping on 6 Dec, though neither bird lingered or was noted elsewhere.

The second **Black Brant** of the year was at Scotney GP on 7 Nov. **Whooper Swans** had another poor year, although two records in this period were most welcome with three over Rye Hbr on 14 Nov and a family party (adult and three juveniles) on Iford Brooks (Lewes) on 29 Dec. In December, the regular flock of **Bewick's Swans** most frequently recorded over the border in Kent at Walland Marsh helpfully wandered into Sussex and onto Scotney GP, with a maximum count of 18 on the 9th and a maximum of eight were in the Arun Valley up to the end of the month, whilst another individual was on Iford Brooks (Lewes) on the 29th and 30th. Also in December, redhead **Smew** at Ashburnham Place (Battle) on the 3rd and 11th and at Iford Brooks on the 11th and 20th were welcome given how scarce this species has become in Sussex.

Good numbers of **Hawfinches** were found again from late autumn, with peak counts of 80 at Monkton (West Dean) on 28 Oct, 57 near Balcombe on 20 Nov and 58 at Penhurst Lane (Netherfield) on 22 Nov. There was a small influx of **Snow Buntings** from 24 Oct, with thirteen up to the end of the year including several inland records.

Lastly, a productive year concluded with the annual arrival of **Caspian Gulls** wintering in East Sussex, with Cuckmere Haven seeing half of the year's records and a maximum of six birds between the 22 and 24 Dec. These birds joined a very good number of adult **Yellow-legged Gulls** on site that is now renowned in November and December as a reliable location for these two attractive gulls.



Hawfinches, by Jan Wilczur

Classified Records for 2021

John Newnham

This list covers all species in Categories A and C of the British Ornithologists' Union (BOU) checklist with records of Category D species listed separately. An index to all the Category A and C species included in the Systematic List is given on pages 285-288.

The Category A and C species are listed in the order published in the British List announced by the BOU in January 2020 and follows the International Ornithological Union's (IOU) IOC World Bird List (version 12.1).

Species Descriptions

Preceding each species account, there is a brief description of its status in the county. These are regularly reviewed and amended to account for recent changes in status. The terms and their corresponding numerical ranges are as follows:

	Breeding pairs	Winter/Passage		Breeding pairs	Winter/Passage
Very rare		1-10 in total	Fairly common	101-1000	201-2000
Rare	less than annual	less than annual	Common	1001-5000	2001-10,000
Very scarce	1-10 per year	1-20 per year	Very common	5001-30,000	10,001-60,000
Scarce	11-100	21-200	Abundant	30,000+	60,000+

Seawatching records

Seawatching records were received from several sites and at four sites daily logs were locally maintained. Figures for Splash Point (Seaford) and Birling Gap were created from records received from other sources. The following table lists the hours watched in each month at six locations for which this information was available:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Selsey Bill	49	43	94	187	150	40	63	69	72	79	65	64	975
Worthing & Goring	52	68	55	65	37	1	16	15	21	37	28	18	410
Telscombe Cliffs	43	49	28	49	33	3	6	9	12	14	9	20	273
Splash Point (Seaford)	1	5	21	66	57	0	4	0	2	0	1	0	159
Birling Gap	5	3	8	15	5	0	0	0	0	0	1	0	36
Fairlight	47	56	51	48	32	0	3	7	10	18	25	19	315

Wetland Bird Survey records

Many tables which are included in the accounts for wetland bird species refer to the monthly WeBS counts. Data were supplied by the Wetland Bird Survey (WeBS), a joint scheme of the British Trust for Ornithology, The Wildfowl & Wetlands Trust, Royal Society for the Protection of Birds and Joint Nature Conservation Committee (the last on behalf of the Countryside Council for Wales, the Environment and Heritage Service, English Nature and Scottish Natural Heritage). These counts are undertaken on a fixed date each month during the winter, and sometimes during the summer months as well. During 2021 the priority core count dates were 17 Jan, 14 Feb, 14 Mar, 11 Apr, 23 May, 13 Jun, 25 Jul, 22 Aug, 12 Sep, 10 Oct, 7 Nov and 19 Dec.

In the WeBS tables, "nc" signifies that the site was not visited or the species was not counted while "–" indicates that the site was visited but none of that species was seen. It is important to note that figures quoted in the tables may appear to contradict those in the text. This is because counts made on set dates may not reveal higher or lower figures which feature throughout the remainder of each month. Prior to 1996 the sites displayed in these tables were randomly selected, invariably choosing sites with the highest counts. Between 1996 and 2003 the tables presented sites where any of the

monthly counts held 5% or more of the county total for that month. However, the tables presented in the reports between 2004 and 2015 show only sites where this figure was reached during any of the core (September to March) monthly counts. From 2016 the sites shown are those where the sum of the core season counts are 5% or more of the sum of the county totals for the same January to March and September to December counts. The tables also show a 10-year average county total for each month to allow readers to place the current year's counts in context. Due to COVID-19 some areas were not covered in January 2021, in particular only one sector of Chichester Hbr was counted contributing to low counts for this month.

Breeding Bird Survey data

Results from the Breeding Bird Survey (BBS) are presented as the totals of the maximum counts recorded from each square surveyed during the year, and the numbers of 1-km squares in which each species was recorded at least once during the year. The maximum count is calculated for each species separately and is based on all birds seen and heard, including those in flight. These figures provide a useful indication of the relative abundance of different species although they do not take account of differences in detectability between species. They do not provide a measure of absolute abundance because BBS surveys do not detect all of the birds present in a particular square. While these figures may provide a general indication of major changes in abundance and distributions over time, they do not provide a statistically robust measure of such changes because they do not take account of the BBS sampling strategy or of temporal variation in the sample of squares surveyed.

Population trends are calculated using a method developed by the BTO for county-level analyses, and report percentage changes in populations over the entire period since the beginning of the survey in 1994, as well as the most recent inter-year differences. These trends for Sussex are reported in the table on page 197 along with upper and lower 95% confidence limits. Percentage changes since 1994 are plotted each year to produce trend graphs; the percentage changes are presented on these graphs as indices relative to an arbitrary index of 100 at the beginning of the survey in 1994. These trend graphs are presented for some species in the species accounts; each graph shows a smoothed trend line, a shaded 85% confidence interval and also actual annual index values. Index values for 2001 or 2020 are missing because Foot and Mouth Disease and COVID-19 restrictions resulted in reduced numbers of surveys being carried out. The BBS is organised by the British Trust for Ornithology (BTO), and jointly funded by the BTO, the Joint Nature Conservation Committee (JNCC, the statutory adviser to Government on UK and international nature conservation, on behalf of the Council for Nature Conservation and the Countryside, the Countryside Council for Wales, Natural England and Scottish Natural Heritage) and the Royal Society for the Protection of Birds.

Garden BirdWatch records

Garden BirdWatch is organised by the British Trust for Ornithology (BTO) and funded through the annual subscription paid by its participants. The aim to monitor the changing fortunes of birds and other garden wildlife through its network of 'citizen scientists'. BTO Garden BirdWatch was launched in autumn 1994 in readiness for recording to begin in January 1995. Participants are asked to record the birds and other wildlife using their gardens, at similar times each week, recording only species actively using the garden and not birds seen from the garden in flight. Participants record the maximum number of individuals of each species seen together at one point in time during the recording period.

Database report

Each species account in the systematic list is written by an individual using the records abstracted from the society's CoBRA2 (County Bird Recording Application) on-line database. As usual the dataset is a complex mixture of records received from online recording systems from the British

Trust for Ornithology (BTO), the Cornell Laboratory of Ornithology (eBird) and the Biological Record Centre (iRecord). Additionally the observations come from a miscellany of recording systems used by various groups and nature reserves and from individual observers.

The total number of records processed for the year was yet another record at 588,756 but this was only slightly above the figure for 2020 as seen in the following figure.

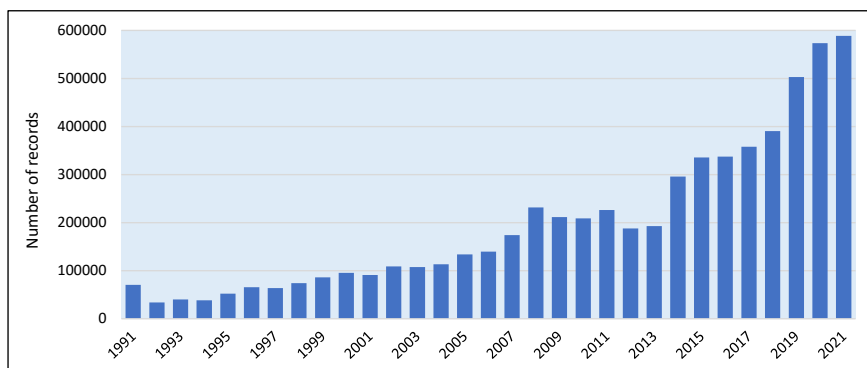


Figure 1. The numbers of records in the database for each year (1991-2021).

In keeping with previous years over 90% of the records came from on-line recording with most of the records originated via the BTO. The number of records from each of the main on-line recording systems and largest contributing county databases are shown in Table 1.

Online recording source name	Records	Other databases source name	Records
BTO BirdTrack data	272014	Horsham District Council Reserves	9888
Cornell University eBird	180231	Ashdown Forest Bird Group	6620
BTO Garden Bird Watch	22035	Rye Harbour LNR Records	5418
Wetland Bird Survey	14077	Selsey Bill Seawatch Log	3775
Breeding Bird Survey	9628	Friends of Weir Wood Res.	3518
iRecord Records	7848	Worthing & Goring coastal migration log	1268
Sussex Winter Bird Survey	6713	Sussex Biodiversity Records Centre	877

Table 1. The numbers of records sourced in 2021 from online recording systems (left) and the top other county databases (right).

As before the greatest number of records came from Birdtrack, an excellent system organised by the BTO in partnership with the Royal Society for the Protection of Birds (RSPB), Birdwatch Ireland, the Scottish Ornithologists' Club and the Welsh Ornithological Society. As demonstrated in the 2020 Sussex Bird Report eBird, administered by the Cornell Laboratory of Ornithology (Ithaca, New York), has become a popular recording medium whilst iRecord, operated by the Biological Records Centre as part of the work of the UK Centre for Ecology & Hydrology, is used to a lesser degree but by a large number of observers. Once again the observations from the BTO's Garden Bird Watch (GBW), Wetland Birds Survey (WeBS) and the Breeding Bird Survey (BBS) have been made available to be included in the species summaries in this report.

A total of just over 1800 observers have been recognised contributing to the dataset and these are acknowledged at the end of the report. This number is in the same order as recent years (1658 in 2020 and 1704 in 2019) but considerably more than just a decade ago as shown in Figure 2.

As usual there was a large range of submissions with 125 observers generating over 1000 records and 300 contributors supplying just one record. Like recent years these figures exclude those participating in the WeBS, GBW or via iNaturalist.

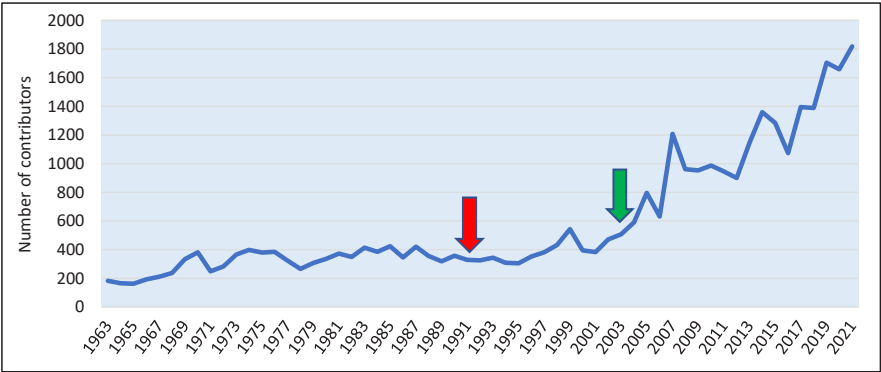


Figure 2. The number of observers contributing to the Sussex Bird Report in each year (1963-2021). The red arrow indicates the first year of computerising records and the green arrow the beginning of on-line recording (Migration Watch).

As usual most records came from the well watched locations such as Chichester Hbr (14,792), Pagham Hbr (38,973), Pulborough Brooks (42,162), Amberley Wild Brooks (12,947), Warnham LNR (14,689), Knepp Estate (11,592), Ashdown Forest (19,251), Pett Level (13,438) and Rye Hbr (22,787). Over 185,000 records were from sites within the South Downs National Park. The coverage of the county was again excellent with at least one record coming from 987 (95%) out of the possible 1039 tetrads wholly or partially in Sussex, and, as the following map shows, most have more than ten records with the usual pattern of the coastal plain, river valleys and Ashdown Forest being the most intensively watched.

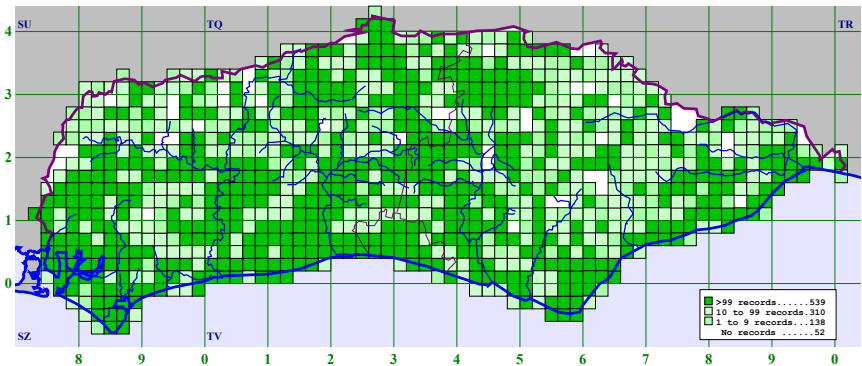


Figure 3. The number of records received for 2021 in each tetrad in Sussex. Dark green symbol, >100 records; mid-green symbol, 10-99 records; and pale green symbol, 1-9 records.

Throughout the systematic list reference is made to the number of tetrads in which some of the more widespread species have been recorded; the fact that not all of the county's tetrads have been visited, and not all these for detailed recording, needs to be considered whilst reading these statements.

Over the decades the society has promoted and encouraged observers to record in more detail the precise grid reference and complete a field of breeding status, particularly during the breeding season. These aspects of recording are of great value when preparing reports to support or challenge planning applications and invariably six or eight character grid references are the most useful. From the conservation viewpoint the 'Gold Standard' would be for all records during the breeding season (April to July) of species of Conservation Concern (Red and Amber) or other designations such as Schedule 1 of the Wildlife and Countryside Act (1981) or Section 41 of the Natural Environment and Rural Communities Act (2006) to have a pin-point 100m grid reference and a breeding status code. During 2021 12.7% of this specific group of records had a breeding status recorded, 6.4% had an eight character grid reference but only 2.3% had both.

With observers encouraged to submit full species lists when using Birdtrack or eBird it is not surprising that the widespread, numerous and easily detected species were the most frequently recorded. For 14 species over ten thousand records were received and for a further 25 species over 5000 records were submitted.

As always some records have been lost as supporting notes describing rare and scarce species or unusual "out of season" sightings have not been forthcoming. During 2021 there was minimal capture of postings on the society's website and only limited capture of details from blogs therefore some interesting and important observations may be lost to the county avifauna.

Survey coverage.

Throughout this report there are references to the number of surveyed areas in which a species was recorded and the percentage shown is based on the following. In 2021 records were received from a total of 987 (95%) of the county's 1039 tetrads. There were reports from 408 different gardens participating in the BTO Garden BirdWatch (GBW); 177 1-km squares were surveyed for the Breeding Bird Survey (BBS) and in the Sussex Winter Bird Survey (SWBS) 119 1-km squares were surveyed in the January/February period and 157 in November/December. A total of 116 1-km squares were surveyed for the South Downs Farmland Bird Initiative (SDFBI) of which 85 were in Sussex and 31 in Hampshire. Where a number is quoted in the texts for the BBS the figure is the sum of the maximum count in each of the surveyed 1-km squares. Where tetrad counts and percentages are quoted from previous years these are calculated from the current dataset and may therefore differ from those published in earlier Sussex Bird Reports.

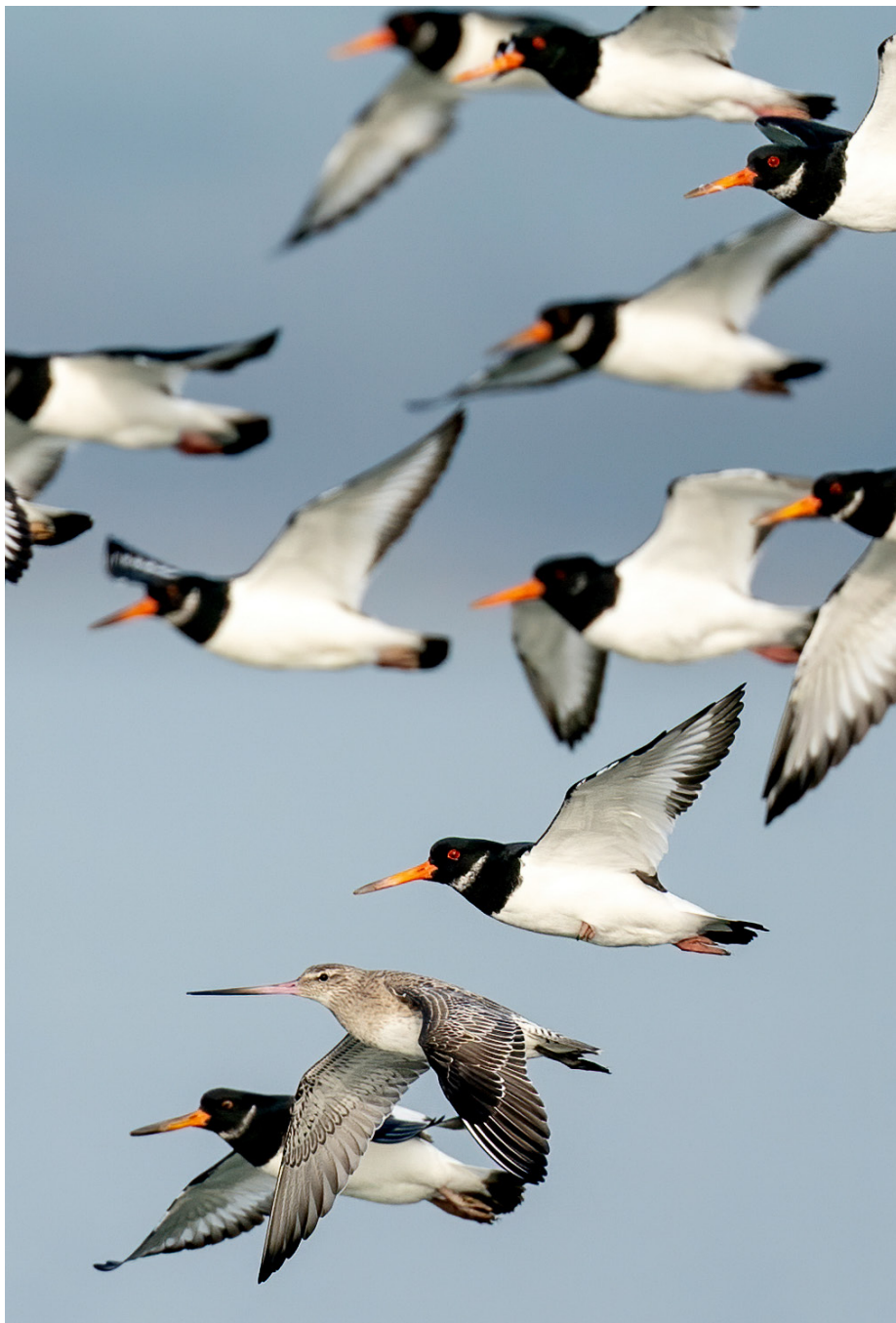
Distribution maps

The distribution maps for certain species include a range of symbols:

Large red circle	Confirmed breeding
Medium red circle	Probable breeding
Small red circle	Seen in suitable breeding habitat
Small open circle	All other records with a grid reference
Square symbols of differing shades display an element of abundance	Red represents the breeding season or summer, blue winter records and green records from the entire year

Tables

Throughout the systematic list there are many tables showing the abundance of species in each month. For most of the scarcer species the approximate numbers can be calculated with relative certainty from the records but for the more numerous, and particularly migratory species, this can be difficult. In these instances a guide to their monthly abundance has been calculated by summing the maximum count in each tetrad in each month giving 'presence only' records a value of one. These figures can be compared with an average for the previous ten-year period calculated in the same way.



Oystercatchers and Bar-tailed Godwit, W Wittering, 26 November (Bob Brewer)

Brent Goose

Branta bernicla



Very common winter visitor and passage migrant; very scarce non-breeder in summer.

Amber listed species of medium conservation concern. Section 41.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	3857	11501	4509	118	3	2	4	8	2	3889	8951	12448
Chichester Hbr	2000	8871	3704	37	2	2	4	8	2	3775	7673	9741
Pagham Hbr	1850	2472	801	-	-	-	-	-	-	111	1217	2209
Average county total 2011 to 2020	13038	13777	8339	50	11	8	7	7	347	5235	9431	10663

With only one sector being counted the January WeBS count was dramatically lower than expected for Chichester Hbr, but otherwise the above figures were unremarkable, though, encouragingly, the December count was above the ten-year average.

As usual, the western harbours held almost the entire winter population, shown in the table above, with Climping Gap, with a peak of 132 on 8 Jan, being the only other location holding more than a handful of birds early in the year. With eastward migration often commencing as early as late January, most birds in East Sussex are, from then on, presumably passing through, with 156 at Pett Level on 8 Feb rising to 200 on the 13th and 14th, dropping to 100 on the 17th and just seven on the 21st as evidence. Equally, small but variable numbers were recorded at Rye Hbr throughout February and March, whilst the only inland sightings were all one-day birds, namely one at Weir Wood Res on 12 Feb, two on Iford Brooks on 13 Mar and one on Henfield Levels the following day.

Spring migration is always spread over a long period, with 60 E past Telscombe Cliffs and 100 E past Fairlight both on 22 Jan clear signs of an early start. After a modest passage in February, with a peak of 332 E past Telscombe Cliffs on the 23rd, March is when most birds move, as the table below shows. The biggest counts were 1000 E past Selsey Bill on the 9th and 1132 E past Splash Point (Seaford) on the 22nd (the best of the spring); both days that saw good numbers elsewhere, too.

Movement was steady throughout April, until one last big day on the 28th, where all sites saw the highest count of the month, with 800 E past Brighton Marina and 466 E past Splash Point the best. A few more continued moving in May, with 60 E past Selsey Bill on the 8th being the last big count, and three past Fairlight on the 19th proving to be the last of the spring.

The monthly totals at the principal seawatching sites were as follows:

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Selsey Bill	E	21	182	1964	547	198	-	-	-	5	1	64	33
	W	25	127	62	4	1	1	-	-	131	1219	311	32
Worthing & Goring	E	203	327	1074	458	21	-	-	-	-	11	29	8
	W	65	112	7	-	-	-	-	-	27	700	575	42
Telscombe Cliffs	E	108	607	727	507	34	-	-	-	-	-	2	26
	W	-	-	-	-	-	-	-	-	2	-	5	-
Splash Point	E	-	114	1550	587	371	nc	-	nc	-	nc	-	nc
	W	-	-	-	36	-	nc	-	nc	-	nc	-	nc
Birling Gap	E	29	-	98	64	-	nc	nc	nc	nc	nc	-	nc
	W	-	-	-	-	-	nc	nc	nc	nc	nc	-	nc
Fairlight	E	144	66	1036	259	14	nc	-	-	-	-	20	-
	W	3	1	-	-	-	nc	-	-	-	-	54	4

Single birds at Cuckmere Haven on 7 Jun, and at Pagham Hbr on 6 to 8 Jun were possibly late migrants but, as usual, a few stragglers were present through the summer, with 1 W past Selsey Bill on 24 Jun, one remaining at Medmerry until 28 Aug, one at Rye Hbr on 23 Jul and 14 Aug and up to a peak of 12 on 16 Aug present throughout in Chichester Hbr.

Three at Climping Gap on 18 Sep were the first of the autumn, with the next day seeing 27 W past Worthing and 19 W past Selsey Bill, followed by 59 past the latter site and 250 on the mudflats off Thorney Island on the 20th. There was a big westward passage on 7 Oct, with 637 past Worthing, 520 past Elmer Rocks (Middleton-on-Sea) and 843 past Selsey Bill, with numbers rising accordingly in Chichester Hbr, where 1000 were seen on 11 Oct and 2000 two days later, though the first big count in Pagham Hbr, of 700 birds, was not seen until 4 Nov.

Away from the core areas, there were relatively few reports, though small numbers were regularly seen in East Sussex, with a peak of 32 at Pett Level on 7 Nov, and inland birds were recorded on Steyning Levels on 25 Nov, at Weir Wood Res on 20 and 21 Dec and Iford Brooks on 31 Dec.

Black Brant *B. b. nigricans*

The individual first seen at Chichester Marina on 28 Dec 2021 only remained in the area until 4 Jan and was not reported subsequently, whilst the only autumn record was of an adult seen and photographed at Scotney GP on 7 Nov, which did not linger, though the Dark-bellied Brent Geese it was with were still present the following day (MC Casemore).

Pale-bellied Brent Goose *B. b. hrota*

The bird seen in Chichester Hbr and the pair at Medmerry in December stayed into January, with all three remaining until the 3rd, with the latter birds then relocating to Pagham Hbr, where they were reported regularly until 3 Mar, with a single bird present there between 6 and 12 Mar.

The only spring passage sighting was of one heading east past Selsey Bill on 1 May, whilst autumn records were restricted to one at Pagham Hbr on 28 Oct and two in Chichester Hbr on 28 Dec and presumably the same two at Pagham Hbr on the following three days. [A House]

Canada Goose

Branta canadensis



Common introduced resident and partial migrant.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	2489	2733	1211	773	576	774	965	3724	2777	2655	3032	3004
Arun valley	893	894	174	176	96	80	43	24	160	1312	786	603
Cuckmere Haven	25	-	14	nc	nc	nc	nc	-	500	300	400	250
Arlington Res	2	11	11	7	21	7	37	1136	1000	129	106	114
Bewl Water	808	685	nc	nc	nc	nc	nc	nc	-	-	215	295
Rye Bay	149	79	47	28	42	30	222	505	176	96	341	178
Average county total 2011 to 2020	2541	1610	798	407	361	421	596	1634	2429	2303	2831	2804

The WeBS counts were above the ten-year average except in January. Aside from these counts, the highest totals early in the year were 317 on Henfield Levels on 9 Jan and 800 at Cuckmere Haven on 25 Jan, though a dozen sites in total reported the presence of at least 200 birds.

Spring seawatching reports were typically few, the most being recorded at Splash Point (Seaford) with 11 E between 31 Mar and 6 May; there were also 2 W past Worthing on 18 Apr and 7 E past Selsey Bill on 27 Apr.

At up to 30 sites confirmed breeding was recorded, mostly of one or two broods, with at least three broods at Medmerry and Leonardslee (Lower Beeding) and four at Rye Hbr. Nest building was noted at Bolney MP on 8 Mar, a bird on a nest was seen at Pett Level on 25 Mar and the first young seen at Arundel WWT and Pett Level on 22 Apr.

A gathering of 300 in Petworth Park on 27 Jun was the first big post-breeding flock, though it wasn't until August that numbers began to build up more widely, with 275 at Medmerry on the 3rd rising to 609 by the 14th, and 627 at Arlington Res on the 6th rising to 1136 on the 10th. The numbers at Medmerry peaked at 750 on 5 Sep, with 1300 at Cuckmere Haven on 24 Sep being the highest count there, and a peak of 906 at Pulborough Brooks was reached on 11 Oct.

Numbers declined as flocks dispersed during the autumn, 800 at Pulborough Brooks on 7 Nov the highest count, with 620 at Cuckmere Haven on 22 Dec and 450 on Henfield Levels on 31 Dec also noteworthy. [A House]



Barnacle Geese, Pagham Hbr, 19 December (Gary Faulkner)

Barnacle Goose

Branta leucopsis



Very scarce winter visitor, often in severe weather; increasingly common feral resident. Amber listed species of medium conservation concern.

One which turned up before Christmas 2020 in West Sussex amongst an arrival of Brent Geese was seen with the aforementioned species on many occasions in Chichester Hbr and then Pagham Hbr until 14 Mar. It would appear that other reports in the early part of the year referred to the naturalised population, particularly in East Sussex, where peak counts were 65 at Barcombe Res on 19 Sep and 120 at Scotney GP on 14 Feb.

A flock of 34 seen on 21 Oct, heading west past Worthing and then later over Pagham Hbr, circling round before continuing west, was the only report during the autumn. There was, however, one final and very strange event in December that must have involved birds from the continent

on their southward migration. It started on the 13th, when a flock of 61 dropped into Pagham Hbr, before departing again that day and later settling in Hampshire, with a remarkable arrival on the following day into West Sussex and only one sighting from East Sussex. Counts included 80 W offshore at Shoreham-by-Sea, 152 W at Lancing, 54 W at Goring Gap and 50 at Rustington but the biggest numbers were further west, with remarkable counts of 333 seen passing Elmer Rocks (Middleton-on-Sea) and 324 seen flying in along the coast from the east and settling in Pagham Hbr. A few more arrived in the county over the next couple of days, including 90 on Thorney Island, 38 at Cuckmere Haven both on the 15th and 24 E past Rye Hbr on the 16th. Around 200 remained in Pagham Hbr until the 16th, dropping to 100 by the 18th, with just five staying until the 21st. Many birds ended up briefly in Hampshire, but none lingered, so presumably they all re-oriented and headed back east, though, curiously, none were reported doing so. [A House]

Greylag Goose

Anser anser

Increasingly common introduced resident and winter visitor; scarce passage migrant.
Native population in the UK is an amber listed species of medium conservation concern.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	867	887	808	558	471	427	961	1668	1479	1886	1882	2187
Arun Valley N of Arundel	49	92	89	64	57	14	38	2	343	107	138	232
Upper Adur Levels	140	20	198	-	nc	nc	nc	nc	-	180	91	18
Weir Wood Res	96	161	12	7	3	34	4	27	156	18	141	80
Lower Ouse Valley	15	-	58	12	-	39	-	-	110	73	111	160
Rye Bay	295	364	217	159	235	113	648	1354	276	806	1270	1141
Average county total 2011 to 2020	1016	753	431	248	281	425	637	1623	1317	1236	1476	1126

Numbers recorded during the WeBS counts exceeded the 10-year average in every month bar January, though the highest, of 2187 in December, was below last year's record count of 2627 in September. Also, as proof of the species' successful colonisation, reports were received during the year from well over 200 different locations throughout the length and breadth of Sussex.

Aside from the above, the biggest first winter counts were 400 at Ardingly Res on 11 Jan, 350 on Steyning Levels on 18 Jan, 310 at Pett Level on 1 Jan and 205 at Scotney GP on 5 Feb; the only other sites to exceed 200 birds. The only reports from seawatching sites during the spring were of nine west past Elmer Rocks (Middleton-on-sea) on 6 Apr and three east past Splash Point (Seaford) on 21 Apr.

There was confirmation of successful breeding from 26 sites (22 tetrads), split evenly between East and West Sussex, with the two most productive sites, each with at least five broods, being Arundel WWT and Rye Hbr.

At Scotney GP the first big post-breeding aggregation of 275 was recorded on 13 Jun rising to 570 on the 26 Jul and 1350 on 22 Aug. Elsewhere 250 at Petworth Park on 6 Jul, 245 at Rye Hbr on 13 Aug and 248 at Weir Wood Res on 29 Aug were the highest counts. September saw high numbers, with notable peaks including 323 at Weir Wood Res on the 6th, 480 at Rye Hbr on the 13th, 580 at Pulborough Brooks on the 16th and 400 at Arlington Res on the 19th.

Numbers declined thereafter, with the best counts being 300 on Pett Level on 2 Oct, 330 on Henfield Levels on the 8th, 1000 on Scotney GP on 7 Nov and 496 on Ardingly Res on 22 Dec. [A House]

Pink-footed Goose

Anser brachyrhynchus ●

Very scarce winter visitor and passage migrant; also recorded as a feral bird. Amber listed species of medium conservation concern.

There was just one record of this surprisingly scarce species, one seen and photographed at Horse Eye Level (Pevensey Levels) on 21 Feb (H Shelley). [A House]

Tundra Bean Goose

Anser serrirostris ●

Scarce winter visitor and passage migrant. Amber listed species of medium conservation concern.

The only two records were of one at Ardingly Res on 11 and 18 Jan (EJ Chandler, A Gray), which was not seen on intervening dates but presumably remained in the area, and a flock of five at Horse Eye Level (Pevensey Levels) on 12 Feb (CF Ball). [A House]

White-fronted Goose

Anser albifrons ●

Scarce winter visitor and passage migrant. European race (A. a. albifrons) is a red listed species of high conservation concern. Section 41.

The year started as 2020 ended, with a lot of birds in Sussex: 420 were counted on 1 Jan, comprising 253 on Pevensey Levels, 104 on Pett Level, 47 at Rye Hbr, ten on Iford Brooks, five at Pagham Hbr and one at Chichester Hbr, with another 15 the following day at Amberley Wild Brooks, where numbers rose to 37 by the 5th and 40 on the 15th. Around 20 sites held birds during the first winter period, though totals dwindled rapidly in West Sussex from mid-January onwards, with reasonable numbers hanging on into March in East Sussex. There the highest counts included 144 on Pett Level on 10 Jan and 128 on the 24th, with 21 still present on 17 Mar and 80 at Rye Hbr on 1 Feb, with 18 still there on 17 Mar. Other notable figures in January included 39 at Pulborough Brooks, 13 at Cuckmere Haven and 30 at Combe Valley CP all on the 10th, whilst 17 were at Arlington Res on 26 Feb. Among the long stayers at less regular sites were three at Ardingly Res until 1 Feb, 13 at Barcombe Res from 16 to 25 Jan and five at Medmerry until 31 Jan.

Unsurprisingly there were a few more spring reports than usual, with March records of six at Combe Valley CP on the 7th (and five still there on the 9th) and one at Henfield Levels on the 12th, though one east past Selsey Bill on 20 Apr was the solitary seawatching record. Several first-year birds lingered even later too, with one at Pulborough Brooks from 5 Mar to 1 Apr, one at Chichester GP from 16 Mar to 4 Apr, one at Medmerry from 18 Apr until 29 May and lastly, one at Rye Hbr that remained throughout the summer, reported regularly until 20 Sep.

One was at Arlington Res from 4 Sep until 26 Oct; otherwise the first returning birds were not reported until 2 Nov, when three were seen flying north-east over Brighton, followed by singles at Pevensey Levels on the 7th and Pett Level on the 10th. Numbers slowly built up thereafter, with the latter site reaching 11 on 9 Dec and 22 on the 19th, with two at Scotney GP on 24 Nov and one on Iford Brooks on 13 Dec. Twelve arrived at the latter site on the 20th, remaining until the year's end.

One was in the lower Adur Valley on the 20th and 21st and the latter date saw a small arrival, including 15 at West Rise Marsh (Eastbourne), three at Newenden Flood, two at Newhaven Tide Mills, two at Cuckmere Haven (with three there the next day) and two at Pulborough Brooks. Numbers peaked at 54 on Pett Level on the 22nd, with the only further record being of 11 on Pevensey Levels on the 27th. [A House]



White-fronted Goose, R Adur, 21 December (Richard Allan)

Mute Swan

Cygnus olor 

Fairly common resident.

Mute Swans were recorded in 222 (22%) tetrads, the highest number on record and compared to the 10-year average of 187 (range 163 to 222). There has now been a steady, but small, rise over the past four years, but it is doubtful whether it reflects any genuine increase. The monthly WeBS counts at the principal locations were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	286	342	450	305	344	360	373	450	396	589	637	519
Chichester Hbr	8	54	78	37	14	133	116	166	108	252	294	209
Arun Valley (Arundel-L'hampton)	54	59	58	67	17	12	25	44	23	11	22	40
Arun Valley N of Arundel	27	39	22	29	47	25	15	22	23	45	50	34
Eastbourne Lakes	37	51	51	14	2	11	2	-	41	44	34	33
Pevensey Levels	33	35	39	23	29	24	8	27	20	33	35	29
Rye Bay	13	17	32	18	110	52	79	74	9	33	49	26
Average county total 2011 to 2020	506	472	437	333	438	431	380	422	541	581	592	584

Overall, the WeBS counts were similar to last year, except that there were full counts at most sites throughout the year due to COVID-19 restrictions being eased.

Notable first winter period counts in addition to the WeBS counts included 40 at Iford Brooks on 1 Jan, 38 at Littlehampton on 17 Jan, 36 at Steyning Levels on 18 Jan, 25 at Rodmell on 13 Feb and 38 at Glynde Level on 15 Mar.

Breeding was confirmed in 43 tetrads, similar to the 42 tetrads last year and consistent with confirmed breeding in recent years. In addition, probable breeding was recorded in a further 11 tetrads. The earliest breeding records were of nest building at Swanbourne Lake (Arundel) and Queen's Park (Brighton), both on 17 Mar. Cygnets were seen at a total of 28 sites, which is a welcome increase on last year, when virtually no cygnets were seen (though that may have been partly due to COVID-19 restrictions). Nest predation by corvids and mustelids, in particular, is thought to be one of the main reasons for the lack of breeding success in some areas. One of the cygnets from a brood on Pett Level was noted as the 'Polish' variant.

Non-breeding and post-breeding aggregations in summer were as usual high in Fishbourne Channel (Chichester Hbr) with 123 on 27 Jun. There was also a high count of 120 near Jury's Gap on 23 May.

In the autumn and second winter period there were few significant counts; as usual Fishbourne Channel held the highest number with a peak count of 139 on 19 Oct. Elsewhere, 45 at Scotney GP on 7 Nov, 37 at Prince's Park (Eastbourne) on 19 Dec and 29 at Lewes Brooks on 2 Nov, were the most significant counts. [J Curson]

Bewick's Swan

Cygnus columbianus 

Scarce winter visitor and very scarce passage migrant. Red listed species of high conservation concern. Schedule 1 species. Section 41.

In the first winter period, numbers in the Arun Valley showed a slight but welcome increase over last year, with between ten and 14 birds seen regularly during January and February (mostly from Burpham and Offham) and a maximum of 15 reported at Burpham on 3 Feb. Age was not reported with most records but 13 adults were noted on 31 Jan at Amberley Wild Brooks so it can be assumed that at least 13 adults were present throughout January and February, but the ages of the

other one or two cannot be ascertained from the records. The last record for the first winter period was of 12 at Burpham on 22 Feb. Unusually, there were no records away from the Arun Valley in the first winter period.

In the second winter period, the first record was of 18 at Scotney GP on 9 Dec. These were then seen regularly until at least 15 Dec. In the Arun Valley, the first record was of two at Pulborough Brooks on 11 Dec and they were seen regularly, at the usual spots in the Arun Valley (mainly Burpham) until 26 Dec. They were joined by a third on 27 Dec, and by five more to give a high count of eight on 31 Dec. Elsewhere one was at Iford Brooks (Lewes) on 30 Dec. Social media posts indicate that three of the eight on 31 Dec in the Arun Valley were juveniles. It would be useful if observers noted ages in their records as this gives an indication of breeding success for the previous breeding season.

Bewick's Swans have been in decline since the 1960s and this species is now classified as Endangered on the European Red List of Birds. [J Curson]

Whooper Swan

Cygnus cygnus

Very scarce winter visitor and passage migrant. Amber listed species of medium conservation concern. Schedule 1 species.

Following a blank 2020, the only records were of three adults that were photographed as they flew east over Rye Hbr on 14 Nov (P Cherry, CH Dean) and an adult and three juveniles on Iford Brooks on 29 and 30 Dec (J MacCallum-Stewart). [P James]

Egyptian Goose

Alopochen aegyptiaca

Scarce introduced resident; bred for the first time in 2000.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	36	27	47	48	43	52	58	102	56	84	87	75
Petworth Park	6	3	7	5	nc	nc	nc	nc	nc	nc	nc	5
Arun Valley N of Arundel	2	4	2	11	13	12	11	4	3	6	2	3
Ifield Mill Pond	6	2	8	5	3	3	-	5	7	3	nc	-
Ardingly Res	2	2	-	-	2	-	nc	-	10	15	6	7
Weir Wood Res	5	2	2	2	-	2	10	9	7	16	9	7
Rye Bay	4	2	4	5	9	18	10	56	9	30	41	18
Average county total 2011 to 2020	20	16	17	19	15	23	27	28	39	29	24	25

There were sightings from 138 tetrads during the year, yet another record as the species continues to rapidly colonise the county. It is now regularly seen in many areas, especially along the river valleys and at the reservoirs, levels and larger waterbodies.

A count of 40 at Great Bentley Fm (Balcombe) on 6 Jan was the highest of the first winter period. The species is rarely seen at seawatching sites so 3 W at Selsey Bill on 24 Jan and 1 W there on 18 Feb were notable as were 2 W at Elmer Rocks (Middleton-on-Sea) on 15 Mar.

Confirmed breeding occurred in 19 tetrads and was probable in a further six. The first goslings were, as usual, seen very early in the season, with six at Cowdray Park (Midhurst) on 18 Jan, and on the same day the seven at Worth Park (Crawley) were thought to be several days old. They bred at Weir Wood Res for the first time on record, and successful breeding was also noted at Petworth Park, Selham, Chichester GP, Duncton, Swanbourne Lake, Waltham Brooks, Amberley

Wild Brooks, Pulborough Brooks, Parham Estate, Kneppmill Pond, Partridge Green, Hartfield, Pett Level and Rye Hbr. During the BBS Egyptian Geese were found in 5.6% of squares surveyed with a maximum of six in two squares: at Petworth Park on 19 Apr and at the Parham Estate on 3 May.

In the second winter period, there were astonishing counts of 118 at Broomhill Level on 21 Nov, presumably part of the burgeoning Kent population, and 110 at Todham (Midhurst) on 16 Nov. Another notable count was 61 at Pulborough Brooks on 2 Oct. [A Thomas]

Common Shelduck

Tadorna tadorna



Fairly common winter visitor and scarce passage migrant; scarce breeding species. Amber listed species of medium conservation concern.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	213	653	481	439	266	246	57	85	47	72	186	684
Chichester Hbr	-	265	271	195	87	115	15	67	17	28	112	367
Medmerry	nc	nc	nc	20	16	9	7	2	9	9	nc	128
Pagham Hbr	162	316	131	121	80	55	21	15	17	21	42	119
Rye Bay	17	38	46	70	57	55	2	1	4	14	27	42
Average county total 2011 to 2020	830	807	691	420	321	217	70	40	46	85	368	634

The very low January count was presumably down to COVID-19 restrictions leading to a nil count in Chichester Hbr, where 200 had been counted on 1 Jan in Thorney Deepes alone. Numbers in February and March were then closer to, but still less than, the average for the previous ten years.

Successful breeding was noted at four sites in Chichester Hbr, and at Medmerry, Pagham Hbr (two pairs), Pulborough Brooks, Cuckmere Haven and Pett Level.

WeBS counts in the second winter period grew slowly, with the November count about half the average from the previous ten years. However, by December figures were back above average, although still well down on historic numbers.

As usual, small numbers were seen passing seawatching sites, with records in all months bar June and July. The largest counts were at Selsey Bill, including a monthly peak of 33 E and 12 W in April. [A Thomas]

Mandarin

Aix galericulata



Scarce introduced resident.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	18	56	16	22	29	38	34	46	63	64	26	52
Selham nr Petworth	nc	nc	nc	nc	nc	nc	nc	nc	nc	nc	-	25
Arun Valley N of Arundel	-	-	6	7	5	6	7	17	6	-	1	12
Slaugham Mill Pond	nc	7	-	-	3	3	2	1	nc	8	-	-
Crawley Broadfield Lake	-	-	-	-	-	-	-	-	24	-	nc	-
Ardingly Res	6	10	-	-	4	5	nc	14	25	30	3	3
Weir Wood Res	1	32	4	6	3	13	14	7	3	22	6	3
Wadhurst Park Estate	7	-	-	1	2	nc	4	5	4	-	9	-
Average county total 2011 to 2020	38	28	21	23	21	29	43	37	36	28	33	34

This rather elusive species was recorded from 87 tetrads, slightly up on 2020. Weir Wood Res, Swanbourne Lake (Arundel), Arundel WWT, Ardingly Res and Warnham MP remain the best places to see them through the year.

The peak count of the first winter period was 32 at Weir Wood Res on 14 Feb, with a notable count of 16 at Fernhurst on 1 Mar.

In the breeding season, four clutches were recorded in nestboxes at Weir Wood Res, of 19, 17, 12 and seven eggs; the larger clutches undoubtedly produced by more than one duck. Successful breeding was also reported at Arundel, Coldwaltham, Pulborough Brooks, Leonardslee, Wivelsfield, Withyham and Powdermill Res.

The highest count of the year was 36 at Ardingly Res on 8 Oct, and other high counts in the second winter period included 30 at Swanbourne Lake on 15 Dec, 25 at Selham (Petworth) on 7 Dec and 24 at Broadfield Lake (Crawley) on 12 Sep.

Along the coast, where records are rare, there was one at Thorney Island on 27 Feb. [A Thomas]



Shelduck, Thorney, 30 January (Bob Brewer)

Garganey

Spatula querquedula

Scarce passage migrant; very scarce summer non-breeder and rare breeder. Amber listed species of medium conservation concern. Schedule 1 species.

Garganeys were recorded in 29 tetrads (3.0%). The first sighting of the year was of a drake on 17 Mar at Sidlesham Ferry, four days later than the 10-year mean arrival date. This bird remained in the Pagham Hbr area until 22 Mar. Minimum monthly totals were as follows:

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Monthly minima	11	33	3	8	4	1	7	1
No of sites	5	14	2	3	3	1	3	1

As in previous years small numbers of spring migrants were observed passing the county's seawatching locations totalling 8 E in April with daily maxima of three on the 1st at Selsey Bill and at Goring on the 21st.

The largest single group was five drakes at Cuckmere Haven on 21 Mar that remained for one day only. Four were reported from Henfield between 2 and 11 Apr and at Arundel WWT on 23 Jun. There was a group of three at Arlington Res on 2 Apr. Elsewhere, no more than two were reported during the summer period though three tetrads held pairs with probable breeding and there were two tetrads with possible breeding. Mating behaviour was observed at Pevensey Levels on 5 May, but no young birds were noted thereafter.

Low numbers were recorded in autumn, with a notable three at Pevensey Levels on 12 Sep and two eclipse drakes at Pulborough Brooks on the 13th. Autumn passage was barely marked by a single bird flying west on 11 Sep at Selsey Bill.

A single on 23 Oct at Saint Hill (East Grinstead) was the final record for the year, 29 days later than the 10-year mean departure date. [ER Paxton]

Shoveler

Spatula clypeata

Very scarce breeder and scarce summer non-breeder; common winter visitor; scarce on observed passage. Amber listed species of medium conservation concern.

The monthly WeBS counts from the principal sites were as follows and apart from the autumn months are not far from the recent decade averages.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	749	702	520	139	17	17	39	41	223	441	644	778
Pagham Hbr	60	27	118	16	-	-	-	4	1	34	50	59
Arun Valley N of Arundel	178	172	50	37	-	1	2	8	5	68	115	74
Eastbourne Lakes	64	82	33	-	-	-	-	-	10	14	3	16
Combe Valley CP	nc	60	150	18	-	-	2	-	-	43	115	115
Rye Bay	411	286	95	27	17	16	34	17	79	176	241	307
Average county total 2011 to 2020	920	814	521	137	21	21	11	25	122	283	558	742

Shovelers were recorded in 90 (9.1%) tetrads in 2021, representing no change from the previous year. In the first winter period there were several three-figure counts not included in the above table including 139 at Barcombe Res on 1 Jan, 175 in Combe Valley CP on 7 Jan, 226 on the Sussex/Kent border at Newenden Flood on 18 Jan, 180 at West Rise Marsh (Eastbourne) on 10 Feb and 100 at Barnham Brooks on 26 Feb. Rye Hbr was probably the most consistent venue during this period with numbers peaking at 300 there on 9 and 13 Feb and still 245 there at the start of April. The highest number noted at Sidlesham Ferry Pool, a traditional site for this species, was 80 on 26 Mar.

Some eastward migration was noted between February and April but the total was a mere 85 with a peak of 15 E at Splash Point (Seaford) on 24 Apr.

Breeding was confirmed at two sites and was probable or possible in another eight. A pair with three small ducklings were noted at Rye Hbr on 7 Jun, whilst at Pett Level there were 45 pairs and several broods seen including six young on the 23 Jun with another brood noted there on the 30th.

There were several small counts of summering Shovelers recorded at sites such as Pulborough Brooks and Pagham Hbr but the 50 recorded at the latter on 20 Aug was the first good count of returning birds. The highest autumn count was of 240 at Rye Hbr on 13 Sep and this venue also accounted for the highest recorded number of the second winter period with 214 on Christmas Eve. Also on 24 Dec, 124 were recorded in the SWBS at Northiam, whilst on 29 Dec 200 were at Pulborough Brooks. [BGR Ives]

Gadwall

Mareca strepera 

Very scarce breeder and summer non-breeder; fairly common winter visitor; scarce on observed passage. Amber listed species of medium conservation concern.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	453	506	297	154	110	195	173	252	290	465	593	795
Chichester GP	nc	6	38	19	10	8	20	20	29	34	51	70
Arun Valley N of Arundel	57	87	115	39	34	78	5	29	56	62	99	89
Bewl Water	175	120	nc	nc	nc	nc	nc	nc	nc	34	96	125
Rye Bay	148	127	74	42	38	80	88	115	109	212	163	291
Average county total 2011 to 2020	840	709	277	124	96	102	78	155	262	292	447	735

With counts impacted by COVID-19 restrictions, the January WeBS totals were low. However, numbers in every other month were higher than the average for the previous ten years, and it appears that numbers may still be increasing somewhat, despite some reduction at what was formerly the prime site at Chichester GP.

The highest count from a single site in the first winter period was 300 at Castle Water (Rye Hbr) on 13 Feb, thought to be a minimum estimate, and 175 at Bewl Water on the WeBS count on 15 Jan. There were good counts of 106 at Swanbourne Lake (Arundel) on 8 Jan, 52 at Newenden Flood on 19 Feb and 50 at Combe Valley CP on 16 Jan.

In the breeding season, there were an estimated 40 pairs at Pett Level and an unknown number of those bred with 'some broods' recorded. There were at least three broods at Swanbourne Lake and at Burton MP fledged young were seen, the only other sites where breeding was proven. A count of 50 at Duncton Pond on 29 Jul was good for late summer.

In the autumn and second winter period, notable counts at individual sites were 240 at Rye Hbr on 26 Nov, 110 at Swanbourne Lake on 30 Nov and 79 at Scotney GP on 10 Oct.

Just a few birds were seen during the year at seawatching sites, mainly in late winter and early spring. For example, at Selsey Bill there were 2 W in February and 6 E in April, while at Splash Point (Seaford) there were 5 E in March and 4 E in April. [A Thomas]

Eurasian Wigeon

Mareca penelope 

Very common winter visitor; scarce on observed passage. Very scarce in summer; does not breed. Amber listed species of medium conservation concern.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	6123	10656	4122	119	-	4	-	2	966	3640	6106	8576
Chichester Hbr	210	1316	1255	59	-	1	-	-	700	1699	3345	2684
Pagham Hbr	1115	831	635	-	-	-	-	-	134	292	230	461
Arun Valley N of Arundel	3265	4379	803	2	-	-	-	-	10	288	702	1023
Rye Bay	1042	2698	932	44	-	2	-	2	106	1054	1158	2619
Average county total 2011 to 2020	10124	9300	3858	70	5	2	1	18	1202	5246	6354	8368

As with other wildfowl species, the January WeBS counts were reduced due to COVID-19 restrictions, with the above average counts in February and March indicating that it was a good winter for this species in Sussex.

The highest count for a single site in the first winter period was 3461 at Amberley Wild Brooks on 15 Feb. Away from the main sites, there were notable counts of 650 at Iford Brooks on 1 Jan and 550 in the lower Cuckmere Valley on 24 Jan.

The last three-figure count of the winter was 100 at Pulborough Brooks on 23 Mar. Following 12 at Thorney Island on 22 Apr, there was just a scattering of records later in spring and during June to August, with no evidence of breeding until 25 were seen at Pagham Hbr on 25 Aug.

By early September, autumn numbers were building, with 250 at Thorney Deepes on the 2nd and 700 there by the 11th. A count of 4000 there on 14 Oct was the highest for a single site in the whole year. Away from the principal sites, 741 were at Arlington Res on 18 Dec.

At seawatching sites, birds were seen in most months of the year, especially at Selsey Bill, with a westerly bias in autumn and winter and then small numbers in spring heading mainly east. The highest day count was 120 E at Splash Point (Seaford) on 22 Mar. [A Thomas]



Eurasian Wigeon, Fishbourne, 22 December (Bob Brewer)

Mallard

Anas platyrhynchos 

Common resident and winter visitor. Amber listed species of medium conservation concern.

Mallards were recorded in 480 tetrads (49%) a small increase of 3% on the previous year. WeBS counts from the principal sites, shown in the table below, reveal that numbers were broadly stable.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	2144	2929	1948	1642	1184	1820	2657	3126	3001	4211	2894	3555
Chichester Hbr	37	175	290	124	73	230	88	195	273	337	373	437
Arun Valley N of Arundel	456	453	331	446	334	414	465	447	525	627	486	436
Angmering Decoy Ponds	170	241	167	121	nc	nc	600	360	384	269	218	124
Bewl Water	271	169	nc	nc	nc	nc	nc	nc	nc	205	214	350
Rye Bay	91	193	79	73	96	131	276	507	205	451	166	207
Average county total 2011 to 2020	3532	2804	1823	1253	1263	1653	2085	3101	3375	3750	3671	3778

In the first winter period, three-figure counts, additional to the WeBS, included 160 at Hammer Pond (St Leonard's) on 14 Feb, 130 at Sheffield Park on 7 Jan, 118 at The Pells (Lewes) on 12 Jan and 2 Feb and 112 at Ardingly Res on 1 Feb. During the early year SWBS Mallards were encountered in 30% of the surveyed squares with a maximum of 59 at Wardley on 28 Feb.

Two birds offshore at Splash Point (Seaford) on 22 Apr were possibly migrants. Records of five offshore at Selsey Bill in the spring were thought to relate to local birds; they were not seen after 22 May.

Breeding was confirmed in 64 tetrads and was probable or possible in a further 63. At Burwash on 22 Mar, a nest was seen high up in an oak tree and at Combe Valley CP a female was sitting on eggs on 13 Apr. The first fledglings were at Pett Level on 29 Mar when a female with eight young was seen. Breeding continued into the summer and autumn months with the last female with seven small ducklings at Arlington Res on 5 Sep. During the BBS Mallards were encountered in 49% of squares surveyed with a maximum of 71 at Northchapel on 26 Jun.

In the second winter period in addition to the WeBS counts shown above, three-figure counts included 180 at Balcombe Lake on 19 Dec, 131 at Ifield MP on 21 Nov and 126 at Glynde Level on 8 Nov. During the late year SWBS Mallard were found in 24% of squares surveyed with a maximum of 60 at Wivelsfield Green on 7 Nov. [BGR Ives]

Pintail

Anas acuta 

Fairly common winter visitor; scarce on observed passage; occasionally summers and has bred. Amber listed species of medium conservation concern. Schedule 1 species.

The monthly WeBS counts from the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	189	592	178	15	-	-	-	-	39	159	90	389
Chichester Hbr	6	174	107	2	-	-	-	-	-	8	39	244
Pagham Hbr	57	60	43	-	-	-	-	-	22	128	7	98
Arun Valley N of Arundel	86	324	7	-	-	-	-	-	-	-	40	24
Average county total 2011 to 2020	439	394	188	7					44	123	264	444

Pintails were recorded in 70 (7.1%) tetrads in 2021, a small increase on the previous 10-year average of 55. Incomplete coverage for the January WeBS is partly responsible for the low county total but the number in February was well above the average.

The best early year counts were of 200 at Amberley Wild Brooks on 1 Jan and 100 at Pulborough Brooks on the same date. At Pagham Hbr a day later, there were 60 and this had risen to 115 by the 15th. During February 157 were at Thorney Island on the 26th and 150 at Pulborough Brooks on the 12th. The highest count in East Sussex was 32 at Rye Hbr on 24 Jan.

There was a hint of early migration in February with 7 E at Fairlight on the 14th, 5 E at Worthing on the 15th and on the 23rd 59 E at Selsey Bill and 84 E at Worthing. Thereafter fewer were seen with 25 E at both Selsey Bill and Fairlight on 2 Mar and 14 E at Splash Point (Seaford) on 26 Mar being the highest counts. Just six were seen from seawatching sites in April and none in May.

A scattering of summering Pintails were at sites such as Pulborough Brooks and Rye Hbr but the first returning birds were the ten seen at Pagham Hbr on 25 Aug whilst 12 were at Thorney Deepes on 2 Sep. There were birds moving both east and west in October and November with totals of 57 E and 25 W at Selsey Bill in these months. Numbers grew steadily throughout the second winter period and by December three-figure counts had been recorded at all the principal sites in West Sussex, the highest being 200 at Pulborough Brooks on the 29th and 30th, 120 at Pagham Hbr on the 1st and 100 at Amberley Wild Brooks on the 28th. [BGR Ives]

Eurasian Teal

Anas crecca 

Rare breeder and scarce summering non-breeder; common winter visitor and fairly common on observed passage. Amber listed species of medium conservation concern.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	2486	3733	1853	469	-	6	49	400	827	2487	2590	4019
Chichester Hbr	8	708	552	79	-	-	4	50	177	376	462	965
Pagham Hbr	397	157	306	19	-	-	5	101	143	201	204	297
Arun Valley N of Arundel	1231	1640	335	146	-	2	16	95	24	831	919	927
Rye Bay	432	530	287	124	-	1	15	85	130	258	519	712
Average county total 2011 to 2020	5494	4371	2279	322	5	36	35	300	1225	2145	3665	4979

The January WeBS count was low due to COVID-19 restrictions. The counts in February and March were much more representative, if a little below average, while the April count was the highest for that month since 2013.

A count of 1213 at Amberley Wild Brooks on 15 Feb was the highest of the year at a single site, and there were two counts of 1000 at Pulborough Brooks at the start of January, these being the only four-figure counts in the whole year. Away from the western harbours and Arun Valley, counts of 506 at Henfield Levels on 21 Feb and 450 at Iford Brooks on 1 Jan were notable in the first winter period.

Numbers dwindled rapidly in the second half of March with the last three-figure count of 100 at Pulborough Brooks on 22 Mar. While small numbers of birds were seen sporadically throughout the summer, including a peak of 22 at Pulborough Brooks on 28 Jun, there were no records of proven breeding.

Forty at Pagham Hbr on 17 Jul might have been early returning birds, but the first three-figure count was 150 at Pulborough Brooks on 24 Aug. In the second winter period, the October WeBS total suggested that numbers were building well for winter but were then below average in November and December. Away from the main sites, there was a good count of 360 at Glynde Levels on 22 Dec.

Small numbers were seen at seawatching sites throughout the year, just a tiny fraction of those moving into and out of the county. As usual, at Selsey Bill more were recorded than at the sites further east, but even here, for example, just 2 E and two on the sea were recorded in 186 hrs of recording in April. The peak month at Selsey Bill was November, with 15 E and 85 W. [A Thomas]

Red-crested Pochard

Netta rufina 

Possibly a rare winter visitor and passage migrant although most records probably relate to escaped or naturalised birds.

A pair found at Burton MP on 3 Jan remained until the 10th. Possibly the same pair was then at Rottingdean for two days on 4 and 5 Sep, also being reported on single days there in November and December. An eclipse drake was found at Rye Hbr on 13 Sep, remaining there whilst moulting into breeding plumage until the 26 Dec. [ER Paxton]

Common Pochard

Aythya ferina 

Very scarce breeder; scarce summer non-breeder and fairly common winter visitor. Very scarce on observed passage. Red listed species of high conservation concern.

The monthly WeBS counts from the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	166	329	216	85	48	61	71	142	207	194	265	449
Chichester GP	nc	98	100	54	30	35	27	41	68	38	97	151
Burton & Chingford Pond	46	52	4	4	-	-	-	4	-	26	5	-
Barcombe Res	nc	nc	nc	1	-	-	2	-	-	13	31	48
Rye Bay	88	142	71	19	14	22	38	90	137	111	110	238
Average county total 2011 to 2020	451	360	126	33	26	36	63	123	100	138	244	383

Incomplete counts due to COVID-19 restrictions make it difficult to use the WeBS to assess the first winter period. There were, however, some reasonable non-WeBS counts in January at these sites of: 200 at Rye Hbr on the 1st, 165 at Chichester GP on the 23rd, 80 at Chingford Pond on the 2nd and 48 at Barcombe Res on the 19th.

One east at Selsey Bill on 30 Mar was the only record of migration in the early spring.

Breeding was confirmed at four sites, one better than in 2020, and was probable in one other and possible in another six. There was a brood of three at Rye Hbr on 13 May, at least two of which were still present towards the end of the month. Four broods from 15 pairs were recorded at Pett Level up to 1 Jun and young were seen there on the 4th. At Chichester GP breeding was confirmed with broods of five, three, two and one.

Migrants began to return in August with the first sizable count of the summer period being of 56 at Pett Level on 22 Aug, whilst 114 were at Rye Hbr on 12 Sep. The largest count of the second winter period was 275 at Scotney GP on 15 Dec and, as the WeBS table shows, up to 151 across the Chichester GP in December. [BGR Ives]

Ring-necked Duck

Aythya collaris 

Rare vagrant.

An adult drake was at Honer Res (Pagham) from 20 to 24 Apr (A House *et al.*). Previous Sussex records have been between early December and early May. The county total moves on to 14. [P James]

Tufted Duck

Aythya fuligula 

Fairly common resident although scarce breeder; fairly common winter visitor and scarce on observed passage.

Tufted Ducks were recorded in 114 (12%) tetrads in 2021, broadly in line with the previous year.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	428	609	716	591	277	238	339	457	323	555	648	1117
Chichester Gravel Pits	nc	85	210	128	45	20	40	20	32	59	80	309
Burton & Chingford Pond	68	85	73	91	15	24	34	53	42	54	41	93
Arun Valley N of Arundel	28	94	82	70	54	50	41	47	41	45	60	68
Barcombe Res	nc	nc	nc	42	7	16	56	77	81	77	79	56
Bewl Water	86	50	nc	nc	nc	nc	nc	nc	nc	69	45	128
Rye Bay	105	98	147	113	88	71	105	150	34	140	188	219
Average county total 2011 to 2020	1038	958	773	525	346	253	291	418	522	581	763	913

WeBS counts suggest that 93% of the ten-year average was recorded this year compared to 83% in 2020, largely aided by a good total of 1117 birds in December. Additional to the WeBS counts, many of the inland waters held double-figure numbers in the first winter period; peak numbers were 49 at Southwater CP on 4 Jan, 45 at West Rise Marsh (Eastbourne) on 15 Feb, 38 at Ardingly Res on 11 Feb and 34 at Petworth Park lake on 20 Feb.

Observed spring migration was very light with 3 E and 3 W at Selsey Bill and 4 E at Splash Point (Seaford) on the Apr 24 the lowly peak.

Breeding was confirmed in just seven tetrads, down from the previous year's 12, but was considered probable or possible in a further 24. At Pett Level approximately 50 pairs were recorded with several broods noted whilst at nearby Rye Hbr breeding was poorly monitored but a female with a single young chick was seen on 27 Jul. At Pagham Hbr five pairs were recorded. Young were noted at Swanbourne Lake on 7 Jul and seven fledglings were at Burton MP on the 17th.

In the autumn and second winter period all the three-figure counts were noted during the WeBS; notable counts at other sites included 56 on a farm reservoir near Yapton in late November, 51 on Powdermill Res on 30 Aug, and 51 at Southwater CP on 26 Dec. [BGR Ives]

Greater Scaup

Aythya marila 

Very scarce winter visitor and passage migrant; rare non-breeder in summer. Red listed species of high conservation concern. Schedule 1 species. Section 41.

All the records in 2021 came from East Sussex. Two were present at Scotney GP on New Year's Day and on 2 Jan, whilst singles were noted there on the 3rd and 4th. One was at Combe Valley CP on 6 and 8 Jan, the last record for the first part of the year. In the second winter period one was at Pett Level on 29 Nov and presumably the same individual on 3 Dec. The year's final record was of a duo at Rye Hbr on 28 Dec. [BGR Ives]

Common Eider

Somateria mollissima 

Scarce winter visitor and passage migrant; very scarce non-breeder in summer. Amber listed species of medium conservation concern.

An immature drake was offshore at Medmerry between 1 and 4 Jan and was then noted in Pagham Hbr on the 6th. Four were offshore at Selsey Bill in mid-January, whilst six, one flying east and five west, were also noted passing the Bill in this period. In February, a single drake was

present at Southwick Canal from 12 to 14 Feb, another drake was at Pilsey Sands (Chichester Hbr) on the 23rd whilst a mixed flock of four flew east at Goring on the 17th. The highest day count of the first winter period was of 21 E at Seaford Head on 26 Mar. Spring sightings included a raft of eight regularly offshore at Selsey Bill whilst a duo was noted heading east at Seaford and Beachy Head on 28 Apr. The final sighting in the first half of the year was of a female at Pilsey Island on 28 May.

In the autumn, a mobile group of up to five birds were at Elmer Rocks (Middleton-on-Sea) and Selsey Bill between 18 and 20 Sep. In the second winter period, a lone female at Pagham Hbr was soon joined by up to five other birds with two groups of three seen offshore on 8 and 12 Nov. By December, the count here had risen further, up to a maximum of 12 on 21 Dec. These were also logged at Selsey Bill on the 30th and five were still offshore here on New Year's Eve. [BGR Ives]

Velvet Scoter

Melanitta fusca

Scarce passage migrant and winter visitor along the coast; rare inland. Red listed species of high conservation concern. Schedule 1 species.

The individual at Sovereign Hbr (Eastbourne), first seen on 8 Dec 2020, remained until 28 Jan. Highest counts during the first three months comprised eight at Pett Level on 8 Mar and 4 E at Splash Point (Seaford) on 26 Mar. Other reports included 1 E at Selsey Bill on 6 Jan, 3 W at Worthing on 24 Jan, three in Chichester Hbr on 6 Feb with one there between 15 and 21 Feb and one offshore in the Worthing area on 27 Feb.

In April, there were 4 E at Splash Point on 19th and 3 E on 21st. On 24 Apr, there were 14 E at Selsey Bill, 6 E at Splash Point and 3 E at Birling Gap. The last for the spring were 4 E at Splash Point on 28 Apr, 17 days earlier than the 10-year average last spring date.

The first returning bird was 1 W at Selsey Bill on 2 Oct, 13 days earlier than the 10-year average. Other October records were 1 E on the 7th and 1 W on the 24th both at Worthing and 2 W at Selsey Bill on 25th. There was a steady stream of records during November and December including on nine dates at Selsey Bill (maximum five on 20 Nov). Other reports included two in Chichester Hbr on 12 dates between 8 Nov and 2 Dec, 6 W at Worthing on 5 Nov, three at Climping Gap and four off Pett Level both on 24 Nov, and one off Shoreham on 28 Nov. In December, counts included one offshore at Widewater (Lancing) between the 3rd and 11th, three at Climping on the 15th, three offshore at Church Norton on the 16th with two there and at Elmer (Middleton-on-Sea) on the 21st, one off Worthing on the 22nd and two in Normans Bay on the 23rd. [M Orchard-Webb]

Common Scoter

Melanitta nigra

Common spring passage migrant and fairly common winter visitor; scarce in summer and autumn. Very scarce inland. Red listed species of high conservation concern. Schedule 1 species. Section 41.

Common Scoters were seen offshore in each month and, as usual, most were recorded from the Selsey Peninsula and from Rye Bay. The following table shows the maximum counts in each month at these two locations.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Selsey area	33	20	27	25	37	8	15	15	7	6	9	22
Rye Bay	60	13	400	150	12	-	28	6	-	41	250	300

The peak counts, all from Rye Bay, were 400 on 20 Mar, 300 on 31 Dec, 250 on 30 Nov and 17 Dec and 150 on 8 Mar, 13 and 16 Apr.

As usual the highest numbers were recorded passing eastward during the spring. The March to May eastbound total of 8835 was slightly lower than the previous ten-year average of 10,813. The more detailed month figures for the year from six regularly watched locations are shown below.

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Selsey Bill	E	41	31	541	4157	1357	168	96	54	51	82	86	65
	W	154	11	96	104	57	27	66	58	11	149	135	34
Worthing & Goring	E	33	53	98	1343	312	-	6	6	3	24	15	8
	W	35	19	1	3	17	-	7	14	10	37	4	4
Telscombe Cliffs	E	5	53	79	729	290	-	13	9	2	3	-	-
	W	17	-	2	-	6	-	-	-	-	4	-	-
Splash Point (Seaford)	E	-	-	1146	3580	1325	nc	-	nc	-	-	-	nc
	W	-	-	-	-	20	nc	nc	nc	nc	nc	-	nc
Birling Gap	E	2	-	905	716	7	nc	nc	nc	nc	nc	-	nc
	W	-	-	-	-	-	nc	nc	nc	nc	nc	-	nc
Fairlight	E	12	21	35	1286	304	nc	2	-	-	-	12	7
	W	21	-	3	-	4	nc	-	1	1	-	-	-

On just four spring days were more than 500 Common Scoters recorded flying east from any site; the details of these days, with the time watched to the nearest hour, are shown below:

	30 Mar	19 Apr	24 Apr	28 Apr
Selsey Bill	339 (5)	232 (8)	1876 (11)	58 (8)
Worthing & Goring	36 (3)	135 (4)	761 (3)	26 (5)
Lancing	-	-	820 (3)	-
Brighton Marina	-	-	-	850 (?)
Telscombe Cliffs	22 (2)	54 (2)	500 (3)	34 (4)
Splash Point	698 (4)	754 (10)	1857 (5)	380 (5)
Birling Gap	857 (4)	340 (3)	255 (2)	0 (1)
Fairlight	3 (2)	5 (2)	710 (3)	85 (2)

A drake at Weir Wood Res on 19 Apr and two there on 18 Jul, which eventually flew north, were the only inland sightings. [JA Newnham]

Long-tailed Duck

Clangula hyemalis



Very scarce to scarce passage migrant and winter visitor; rare non-breeder in summer. Red listed species of high conservation concern. Schedule 1 species.

One at Scotney GP on 2 and 14 Jan was probably the individual seen there between 15 Nov and 14 Dec 2020. One offshore at Selsey Bill on 6 Jan was noted again towards the end of January, and it seems probable that this bird was the same individual that was logged regularly offshore until 30 Apr. Another long-staying bird was the female found on the reservoir at Bilsham (Yapton) on 25 Feb which lingered until 17 Apr.

In the second winter period the first was recorded at Sovereign Hbr Marina (Eastbourne) on 18 Nov. One, located at Southwick Canal on 23 Nov, proved to be a popular bird that stayed faithful to the area well into 2022. Although mostly singles were noted through the year, a duo was noted flying east along the coast from Climping to Worthing on 19 Nov and four, the year's highest count, were seen offshore from Church Norton on 27 Nov. [BGR Ives]



Long-tailed Duck, Southwick, 29 November (Leigh Provost)

Goldeneye

Bucephala clangula

Scarce winter visitor; rare non-breeder in summer. Red listed species of high conservation concern. Schedule 1 species.

The monthly WeBS counts at the principal sites were:

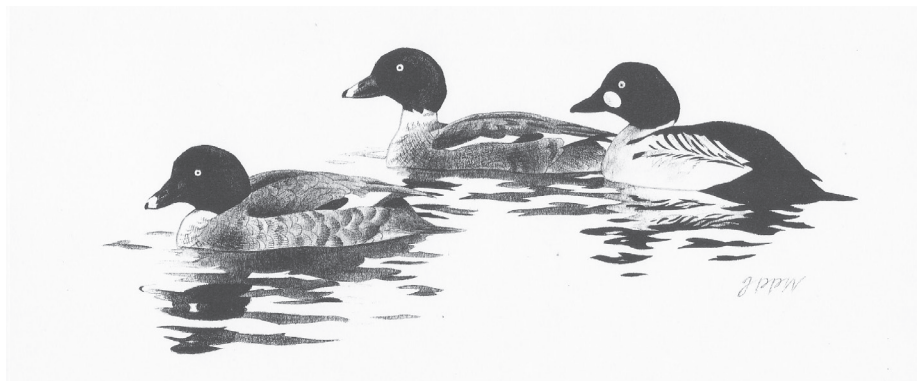
	Jan	Feb	Mar		Oct	Nov	Dec
County total	11	10	4		-	3	6
Chichester Hbr	6	3	4		-	3	2
Pagham Hbr	2	3	-		-	-	2
Rye Bay	3	3	-		-	-	-
Average county total 2011 to 2020	21	25	7		1	4	12

In the first winter period, the highest counts were in Chichester Hbr with 17 at Dell Quay on 1 Jan and eight in the Fishbourne Channel on 9 Feb. Five or six were further reported at this latter location during January on four occasions. Throughout this first winter period, Goldeneye were regularly reported at Rye Hbr with a peak of four on 25 Jan. At Pagham Hbr, two were present on 16 Jan and in February, they were reported on six dates with a peak of four on the 2nd. Elsewhere, there were 2 E off Worthing on 4 Jan, 1 E off Goring on 25 Feb and one was at Weir Wood Res on 27 Feb.

During April, up to two were in the Rye Hbr area early in the month and there were 2 E at Splash Point (Seaford) on the 25th which were the last for the first half of the year.

The first returning birds were three at Pulborough Brooks on 10 Oct, one day earlier than the 10-year average arrival date. The next sighting was not until 6 Nov when three were in Chichester Hbr. Numbers were low in the second winter period and the highest counts were in Chichester Hbr during December with five at Fishbourne Channel on the 1st and four at Dell Quay on the 11th. The highest counts at Rye Hbr and Pagham Hbr at this time were two and three, respectively.

Away from the main locations, reports came from five locations: 1 E at Selsey Bill on 8 Nov; 1 E at Worthing on 22 Nov; one at Bilsham (Yapton) on 23 and 25 Nov, one at Weir Wood Res on 23 and 24 Nov, 10 and 20 Dec and one at Ardingly Res from 8 to 22 Dec. [M Orchard-Webb]



Goldeneyes, by Jan Wilczur

Smew

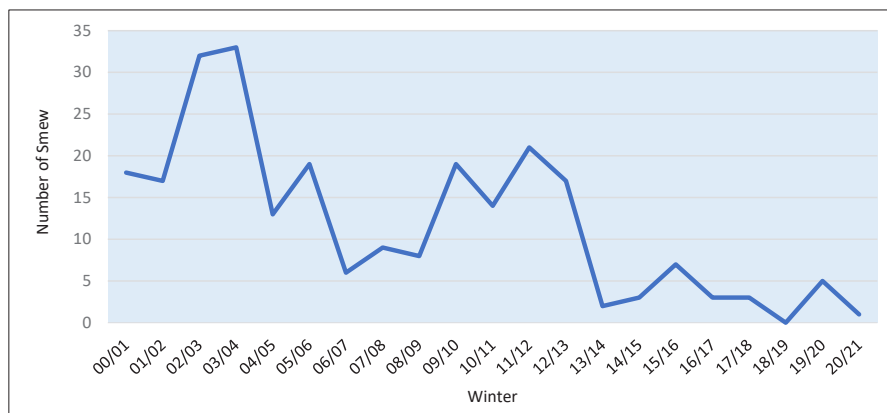
Mergellus albellus



Very scarce winter visitor mainly to the east of the county. Red listed species of high conservation concern.

Just three single birds were recorded: at Bewl Water on 2 and 12 Feb and, in December, redheads at Ashburnham Place (Battle) on the 3rd and 11th and at Iford Brooks on the 11th and 20th.

Note that from 2022, Smew is a description species in Sussex as it has declined significantly over the last twenty years as shown in the graph below. [M Orchard-Webb]



Goosander

Mergus merganser



Scarce winter visitor and passage migrant.

Goosanders were noted in 47 (4.8%) tetrads in 2021, a more than 50 percent increase on 2020. The majority of records in the first winter period were from inland sites with singles being noted at Pulborough Brooks, Steyning and Bramber, though a pair was present at the traditional venue of

Petworth Park throughout January. On 9 Jan, seven (five females and two smart males), were seen together at Amberley Wild Brooks and these relocated to the River Arun at Pulborough on the 10th. By the end of the month these seven had been joined by another and subsequently eight were seen both in flight and patrolling the river whilst nine were noted over the south brooks at Pulborough on 27 Feb. The wintering flock at Troutbeck (Eridge) reached a peak of 14 on 7 Feb, the year's highest site count. Offshore records included a male that flew west past Goring on 21 Feb, one past Seaford on the 25th and another, a redhead, flew east at Ferring on 28 Apr. The last record for the first part of the year was of a late bird at Billingshurst on 11 May.

Five at Pulborough Brooks on 21 Oct were the first in the second winter period and thereafter there were several good counts including a well watched group of up to six redheads that frequented the Church Norton/Pagham Harbour area from 11 Nov to 19 Dec. The highest counts during this period were seven at Thorney Deepes in the latter part of November, seven at Troutbeck on 9 Dec whilst five were at Petworth Park on 2 Dec. The last record of the year was of a pristine drake inland at Worth Park (Crawley) on 31 Dec. [BGR Ives]

Red-breasted Merganser

Mergus serrator

Fairly common winter visitor and passage migrant along the coast; rare non-breeder in summer. Rare inland. Amber listed species of medium conservation concern.

The monthly WeBS counts from the principal sites were as follows but with an incomplete count in January and the tendency for this species to frequent coastal locations not visited for this survey the figures are not a reliable representation of the county population.

	Jan	Feb	Mar	Apr	May	Oct	Nov	Dec
County total	15	57	64	4	5	4	23	61
Chichester Hbr	-	54	56	2	-	3	19	50
Pagham Hbr	15	3	8	-	-	-	4	7
Average county total 2011 to 2020	147	128	141	6	<1	13	91	107

The highest offshore counts during the first winter period were 144 on 22 Mar at Goring Gap and 90 at Elmer Rocks (Middleton-on-Sea) on 18 Jan, when calm conditions enabled an accurate figure to be established and displaying birds were noted. At both sites counts of 50 or more were recorded throughout this period. Numbers reduced as expected during the spring months, 14 at Selsey Bill on 3 Apr being the highest count for the month and in May just eight were recorded comprising 1 E at Splash Point (Seaford) on the 2nd, one at Selsey Bill on the 11th, 5 E at Brighton Marina on the 13th and the last, a female that flew east purposefully at Elmer Rocks, on the late date of 20 May.

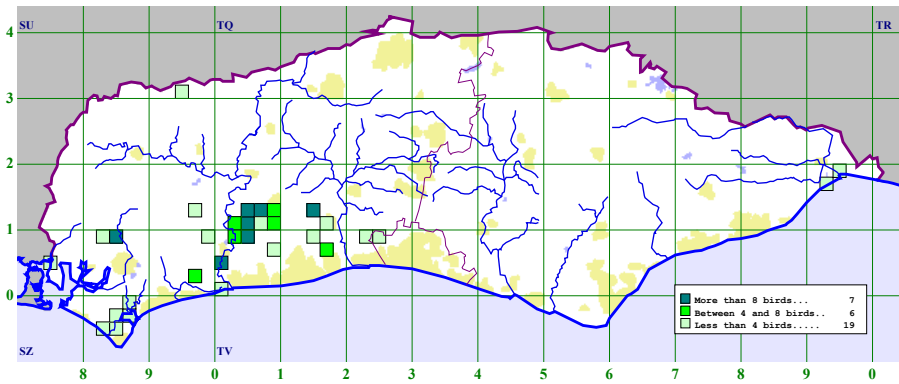
The first returning bird of the autumn was 1 W at Worthing on 15 Sep but it was not until October that numbers started to build with 49 recorded passing Selsey Bill in this month. By the start of the second winter period, 34 newly arrived birds were offshore at Elmer Rocks on 3 Nov whilst towards the end of November counts in the Worthing area were regularly of c.40 with a high of 50 on the sea on 22 Nov. December non-WeBS double-figure counts included 18 in Chichester Hbr on the 26th and 11 noted at Thorney Island on the 31st as part of the SWBS. [BGR Ives]

Grey Partridge

Perdix perdix

Scarce resident; much declined but benefitting locally through conservation effort. Red listed species of high conservation concern. Section 41.

Grey Partridges were found in 32 tetrads (3.2%), fewer than the 10-year average of 54 (range 38 to 64). The map shows their distribution with the conservation work on the Norfolk Estate clearly evident.



They were recorded in every month except August on the Norfolk Estate. In the first winter period the highest counts were from this area with a maximum of 35 on 1 Jan. In East Sussex two were at Rye Hbr on 22 Feb with singles there on other dates. The Society continues to receive occasional reports of Grey Partridges in parts of East Sussex away from Rye Hbr. If the species is hanging on there, that would be of conservation importance and records, preferably supported by photographs or other evidence, would be most welcome.

Breeding was confirmed in just four tetrads mostly confined to the Norfolk Estate except for one record of six well grown young with two adults at Lidsey Rife (Yapton) on 22 Oct. There was probable breeding in four further tetrads. During the breeding season there were records from at least 15 broad locations.

In the autumn and second winter period most double-figure counts were from The Burgh (Norfolk Estate) area with a maximum of 50 on 13 Nov. Other notable counts were 31 at nearby Kithurst Hill (Storrington) on 23 Oct, 15 on the Wiston Estate (Steyning) on 29 Nov and 23 south of Arundel on 1 Dec. [G Turvey, MJ Chattaway]

Common Pheasant

Phasianus colchicus

Very common introduced resident. Population augmented annually by captive bred stock.

Common Pheasants were recorded in 601 tetrads (61%), an increase on 2019, 2020 and the 10-year average of 496. In the early year SWBS 282 birds were found in 54% of the squares surveyed, a slight increase from 52% in 2020. High counts in this period were 50 at Woodingdean on 6 Jan, the same number at Mannings Heath on 15 Jan and 40 at Burpham Levels on 3 Feb.

In the BGBW this was the 24th commonest species, the same as the previous two years. Birds were recorded in 30% of the 355 gardens surveyed in the GBW. Breeding was confirmed in seven tetrads, one more than 2020 and was probable in 35, a similar number to 2020 and 2019. A female with ten fledglings at Steep Down on 10 Jun were the first young seen, and fledglings also seen at Henfield on 28 Jun and Clayton Windmills on 6 Aug. During the BBS Common Pheasants were found in 82% of squares surveyed with a maximum of 64 at Balcombe on 16 Apr.

As an introduced gamebird, Common Pheasants can sometimes be overlooked but concern around their effect on native wildlife means that all records are gratefully received. The release of captive-bred birds by shooting estates in the autumn led to the year's highest counts around the beginning of the shooting season on 1 Oct, with 162 at Balcombe on 4 Oct, 100 at Withyham on 16 Oct and 87 at Wivelsfield on 17 Oct. There were 53 counts of 20 or more in the second winter

period compared to 17 in the first winter period. In the late year SWBS, 78 birds were found in 50% of the squares studied, a decrease from 53% in 2020 and 57% in 2019.

Two melanistic individuals were seen at Uckfield on 4 Oct. [D Brothwell]

Quail

Coturnix coturnix 

Scarce summer visitor; recorded in variable numbers from year to year. Formerly occasional in winter. Amber listed species of medium conservation concern. Schedule 1 species.

Quail are elusive and there are no recent confirmed breeding records; they were recorded in 15 tetrads. The first, heard on 8 Jun at Steep Down (Lancing), was nearly a month later than the 10-year average first date of 10 May. They were recorded from there on 16 further dates until 5 Aug. Three were present at times and calling was heard but no further breeding evidence was obtained.

Elsewhere there were June records of single birds at Devils Dyke on the 13th, Cissbury on the 19th (with two on 9 Jul), Amberley Wild Brooks from the 27th to the 29th, Beeding Hill on the 27th and in July singles at Sompting and Pevensey Levels on the 5th, and one seen crossing a road near Highdown (Worthing) on the 21st. At Steyning up to three were heard intermittently between 20 Jul and 12 Aug. In August three were at The Burgh on the 3rd, one at Firlie Beacon the next day and the last record of the year came from Medmerry on the 29th, one day earlier than the 10-year average last date. [G Turvey]

Red-legged Partridge

Alectoris rufa 

Common introduced resident. Population augmented annually by captive bred stock.

Red-legged Partridges were recorded in 203 (21%) tetrads, up from the 162 tetrads in 2020.

In the early year SWBS a total of five was found in just three of the 119 squares surveyed with a maximum of three on 27 Feb in St Leonards Forest.

There were 198 encounters during the BBS, being found in 26 (15%) of the squares studied with a maximum count of 79 on 16 Apr in Balcombe. There were just three records of confirmed breeding: coveys of eight and seven fledged young on the Norfolk Estate on 9 Jul, and of birds on the nest at Horsted Keynes on 9 Apr.

The impact of the release of captive bred stock is apparent from the surge in numbers in the second half of the year when there were five counts of 70 or over and five more over 50 with the maximum of 82 at West Dean on 20 Nov. A total of 65 was reported during the late year SWBS when found in nine (5.7%) squares studied with a maximum count of 46 on 19 Dec in Cocking, contrasting with the paucity of birds found in the early year survey. [PJ Plant]

Nightjar

Caprimulgus europaeus 

Fairly common but localised summer visitor; rarely seen on migration. Amber listed species of medium conservation concern. Section 41.

This species was recorded in 45 (4.6%) tetrads, nine fewer than in 2020, but a similar number to 2019 and 2018. Tetrads with records were predominantly located in the Wealden Heaths and Ashdown Forest areas. The first record of the year was one day earlier than the ten-year mean arrival date, with one seen resting on the roof of a house in Lancing on 7 May, followed by single birds at Wiggonholt Common (Pulborough Brooks) and at Beachy Head on 10 May. The only other coastal sighting during spring migration was of one near Brighton on 24 May.

The first records for the Wealden Heaths were of three at Lavington Common on 12 May and two at Black Down on the 14th. In the annual WHBBS 61 pairs or territories (see page 206) were recorded, which included 18 on Ambersham and Heyshott Commons, ten on Woolbeding

Common, nine on Iping Common, and eight on the Lavington Commons complex.

The first record for Ashdown Forest was of one on 19 May at Hindleap Warren. There were no records confirming breeding on Ashdown Forest again this year; however, there was evidence of probable breeding from at least 13 locations and churring males were reported from many more.

Counts on heathland at RSPB reserves included four displaying or calling males at Pulborough Brooks and ten at Broadwater Warren, but with no evidence confirming breeding. The only evidence of confirmed breeding this year was of four fledged young at Rewell Wood (Arundel) on 26 Jul. There were also reports indicative of probable breeding, in the form of displaying males, at Watergate (West Marden), Screens Wood (Arundel) and Pound Common and Romany Ridge (Chailey). Churring males were also recorded at Stansted Forest and Red House Common (Chailey).

There were only five records in August and one flew SW near Heyshott on 6 Sep, the only report this month and the last record of 2021, eight days earlier than the 10-year average last date. [A Rowe]

Common Swift

Apus apus 

Common summer visitor and passage migrant. Red listed species of high conservation concern.

Common Swifts were recorded in 370 tetrads (37%) compared to the 10-year average of 337 (range 263 to 416). The first birds back in Sussex were two reported at both Warnham LNR and Rye Hbr on 21 Apr. For a species whose annual return is much anticipated this is eight days later than the 10-year mean first arrival date of 13 Apr and the latest since 1999 when the first was recorded on the 22 Apr.

There were daily, single-figure counts from a dozen sites from 22 Apr until records of 15 at Henfield and 35 at Pulborough Brooks on 25 Apr. The count at Pulborough Brooks increased to 69 the next day and 100 on the 29th. During May there were ten counts of over 100 with the highest of 250 at Barcombe Res on 24 May and a further 30 counts of over 50.

Breeding was confirmed in 52 tetrads and probable in a further 14 (cf. 12 and 28 respectively in 2020, a year in which survey work was constrained by COVID-19 restrictions).

Swift groups across Sussex provided much useful detailed data, that at Lewes being a model example (see <https://e-voice.org.uk/lewesswiftsupporters/about-us/>). At a Bury nest box with a camera, the first returning bird was on 30 Apr, the first egg was observed on 24 May, the first young reported on 16 Jun and fledging on 28 Jul, but the first fledglings were seen at Bexhill on 22 Jul. In the BBS there were 180 encounters in 17% of squares studied with a maximum of 22 at Edburton on 23 Jun.

High counts of 100 or more were noted over the summer on 44 occasions with 400 at Rye Hbr on 19 Jun. The last three-figure count was 150 at Firlie Beacon on 4 Aug after which numbers dropped away. Eleven at Seaford Head on 21 Aug was the last double-figure count. The final records were of single birds at Lewes Brooks and Pagham Hbr on 8 Oct, ten days later than the 10-year average last date. [P] Plant]

Common Cuckoo

Cuculus canorus 

Fairly common but declining summer visitor. Red listed species of high conservation concern. Section 41.

Cuckoos were recorded in 217 tetrads (22%) compared to the ten-year average of 223 (range 169 to 328).

The first was at Beachy Head on 29 Mar, one week earlier than the 10-year average first date, followed by one at Weir Wood Res two days later and a pair at Lavington Common on 1 Apr. There

was then a gap until 9 Apr when birds were recorded at Waltham Brooks, Pulborough Brooks, Lavington Plantation, Henfield Levels, Woods Mill, the Knepp Estate, Ashdown Forest and Pett Level. Thereafter there were records almost daily until early July.

Breeding was confirmed only on Pevensey Levels where a fledgling was seen and heard making begging calls, but considered probable in a further 20 tetrads. Five males were present at Pagham Hbr on 1 Jun and up to six were noted on the Knepp Estate on 9 May; at four other sites four were recorded between late April and June: Newenden, Cadborough (Rye), Ashdown Forest and Medmerry.

From July until mid-August singles were seen on just 11 dates at 13 different sites. Later individuals were one at Hastings CP on the 29 Aug and the final sighting of the year was one near Uckfield on 6 Sep, considerably earlier than the 10-year average last date of 22 Sep. [T Seabrook]



Cuckoo, Beachy Head, 26 July (Laurence Pitcher)

Feral Pigeon

Columba livia 

Common resident.

Feral Pigeons were recorded in 326 tetrads (327 in 2020). In the first winter period, there were seven three-figure counts, the highest being 270 in Brighton on 20 Jan, and 50 or more were recorded at 14 other sites. In the early year SWBS, birds were recorded in 19% of the squares surveyed.

Breeding was under reported with confirmation in just three tetrads. In the spring and summer periods, the highest count was 215 at Hove on 17 Apr, which was a BBS count; during that survey they were encountered in 27% of the squares surveyed.

For the autumn and second winter period there were three counts of c.100: at Uckfield on 26 Sep, Southwick Canal on 26 Nov and Hampden Park (Eastbourne) on 28 Nov. At a further 15 locations, the majority at or near the coast, over 50 were recorded. In the late year SWBS birds were found in 19% of the squares surveyed. [AH Podmore]

Stock Dove

Columba oenas 

Common resident and possible winter visitor. Amber listed species of medium conservation concern.

The species was recorded in 514 tetrads compared with the 10-year average of 343. In the first winter period, there was a notable count of 1200 at Arlington Res on 3 Jan with 500 at Alcliston on 5 Feb and ten other records of over 50 birds. During the early year SWBS Stock Doves were found in 31% of the squares surveyed with a maximum of 27 at Pallingham (Pulborough) on 3 Jan.

Breeding was confirmed in 14 tetrads (nine in 2020) but considered probable or possible in a further 161 tetrads (136 in 2020), while in the BBS they were seen in 53% of the surveyed squares with a maximum of 21 at Balcombe on 17 May. The highest count for the spring and summer was of 140 at Lewes on 3 May.

There was no noticeable passage in the autumn, but late winter counts included impressive flocks of 1350 at Broomhill Level on 21 Nov, 2000 there on 14 Dec and the next day 1850 at nearby Scotney GP. In the late year SWBS Stock Doves were encountered in 22% of the squares surveyed with a maximum of 90 at Edburton on 28 Nov. [AH Podmore]

Woodpigeon

Columba palumbus 

Abundant resident and winter visitor. Amber listed species of medium conservation concern.

Woodpigeons were recorded in 779 tetrads compared to the 10-year average of 686. The only count of note in the first winter period was of 1200 at Warnham LNR between 17 and 21 Feb. There were 71 records of flocks of over 100 birds (200 in 2020). During the GBW they were recorded in 96% of participating gardens and there were occupancy rates of 77% and 84% in East and West Sussex gardens respectively for the BGBW. In the early year SWBS they were encountered in 100% of the squares surveyed with a maximum of 270 at Pallingham (Pulborough) on 3 Jan.

Although clearly a widespread breeder, breeding was confirmed in only 35 tetrads (31 in 2020) but likely in a further 154 tetrads (161 in 2020) while the species was found in 100% of squares surveyed for BBS with a maximum of 199 at Hartfield on 19 Apr. The BBS index for Sussex suggests a steady increase over the past decade following a notable increase in the first years of this survey. Woodpigeon is now an amber listed species of conservation concern due to the international importance of the breeding population in the UK.

Autumn passage began with 450 W at Elmer Rocks (Middleton-on-Sea) and 687 W at Selsey Bill both on 22 Oct, followed by 1200 at Pulborough Brooks on the 23rd, 1500 at Warnham LNR on the 27th and 1300 SSW at Weir Wood Res on 1 Nov. There were then 35,750 W at Brighton on the 2nd, with 28,780 there on the 3rd, numbers not seen for several years. Passage reduced to 6840 W at Brighton 4 Nov and 2250 W there on the 5th.

The only records of note for the later winter period were 1000 at Westdean Woods on 21 Nov and 1500 at Warnham LNR 29 Dec. In the late year SWBS Woodpigeons were encountered in 99% of squares surveyed with a maximum of 650 at Lyminster on 24 Dec. [AH Podmore]

Turtle Dove

Streptopelia turtur 

Scarce and declining summer visitor and passage migrant. Red listed species of high conservation concern. Section 41.

The species was recorded in 51 tetrads, the lowest number ever, compared to the 10-year average of 76 (range 62 to 104).

The first arrival flew in off the sea at Selsey Bill on 10 Apr, five days earlier than the 10-year average first date. It or another was seen at Pagham Hbr later that day. There were six records for April, all for singles except for two at Netherfield on the 18th. As in previous years, sightings were made on an almost daily basis during May and June. In the Knepp Estate Southern Block (473.17ha) several structured surveys were carried out across the breeding season that recorded an estimated 20 Turtle Dove territories. Although no structured survey was carried out in the other blocks none were recorded in the Middle Block (280.5ha) or Northern Block (236.67 ha). Four were at Northchapel on 26 Jun and one was heard purring near some newly created ponds at Plaistow on 9 Jun adding to the evidence that small accessible ponds are key components in their habitat requirements. There were no tetrads with confirmed breeding (none in 2020) while breeding was probable in 13 and possible in nine other tetrads (eight and 23 in 2020).

A national Turtle Dove survey was undertaken in 2021. Coverage in the county was based on random sampling of 1-km squares within three different strata (recent records, occupied Atlas tetrads and occupied Atlas 10 km), plus some targeted surveys. A total of 138 1-km squares were surveyed, most finding no Turtle Doves but a maximum of 11 territories were found within these squares; no new territories were located in Sussex.

Allowing for duplication, there were a further 28 records for July, all for ones and twos, except for three on the Knepp Estate on 4 Jul with a dozen records for August. There were just three Turtle Doves recorded in September, one at Selsey Bill on the 5th and a pair which had been seen regularly in a garden near Ringmer all summer remained until the 30th; just one day earlier than the 10-year average last record date of 1 Oct. [AH Podmore]

Collared Dove

Streptopelia decaocto 

Very common resident.

Collared Doves were recorded in 517 tetrads compared to the 10-year average of 471. In the first winter period there were five records of flocks of 20 or more with 40 at Woodingdean on 6 Jan being the highest. During the early year SWBS, the species was recorded in 38% of the squares surveyed with a maximum of 25 at Westergate on 22 Feb and found in 34% of East Sussex and 32% of West Sussex gardens in the BGBW. During the whole year they were found in 78% of participating gardens in GBW.

Breeding was confirmed in only three tetrads (seven in 2020) but possible or probable in a further 96 tetrads (89 in 2020). Collared Doves were recorded in 57% of the squares surveyed for

the BBS with a maximum of 17 at Westergate. Display was noted from mid-February in Worthing, a bird was on a nest on 30 Apr on the Knepp Estate and the first fledglings were seen on 1 Jun in the Arun Valley.

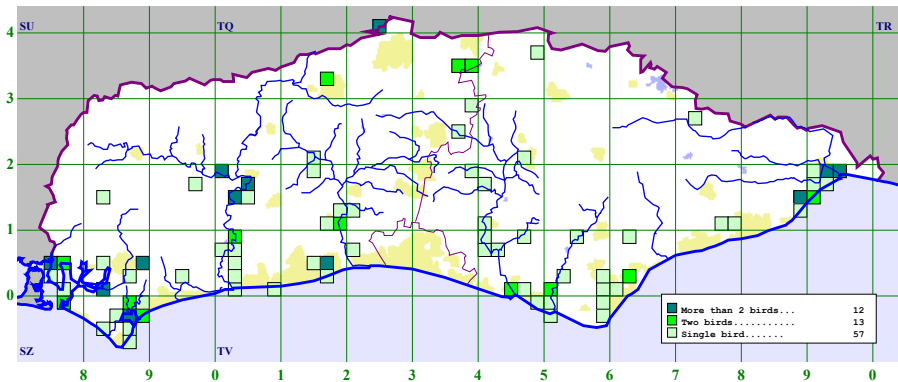
There were ten records for 20 birds or more during the autumn and second winter period with high counts of 50 at Thorney Island on 11 Nov and at Piddinghoe on the 18th. In the late year SWBS, Collared Doves were found in 27% of the squares surveyed with a maximum of 28 at Stedham Common on 16 Dec. [AH Podmore]

Water Rail

Rallus aquaticus

Scarce resident; scarce winter visitor and passage migrant.

Water Rails were seen in 82 (8.3%) tetrads, marginally higher than the 2020 figure of 72 and the 10-year average of 65 tetrads with records of mostly no more than three birds. The relative abundance of Water Rails across the county is shown in the figure below, which plots the maximum number of birds recorded in each tetrad, illustrating their requirement for wetland habitat.



At Pulborough there were sightings in every month of the year while at Rye Hbr only the months of July and August were without sightings. At Waltham Brooks there were no records in only February and May and at Amberley Wild Brooks there were no records only in January.

In the first quarter the highest counts were eight at Newhaven Tide Mills on 1 Feb and five at Rye Hbr on 3 Mar.

There were no confirmed reports of breeding in 2021 but in nine tetrads breeding was considered probable or possible. A breeding season survey at Pett Level estimated that 55 pairs of Water Rails were present.

In the autumn, numbers began to build a little with fours at Amberley Wild Brooks on 10 Oct, Thorney Deepes on 13 Oct and 8 Nov, Waltham Brooks on 24 Oct and Pett Level on 6 Nov. At Chichester GP there were six on 24 Nov and four on 19 Dec. [T Seabrook]

Moorhen

Gallinula chloropus

Very common resident; possibly fairly common winter visitor but status uncertain. Amber listed species of medium conservation concern.

The species was recorded in 376 (38%) tetrads, marginally higher than the 367 of the previous year. The monthly WeBS counts were as follows; only in April was the county total higher than the average for the previous ten years.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	323	378	323	243	141	126	194	260	382	470	507	477
Chichester Hbr	5	29	25	22	7	12	7	29	20	35	38	35
Chichester Canal	nc	44	36	49	31	11	9	22	30	61	82	nc
Arun Valley N of Arundel	51	30	32	17	25	21	55	58	57	49	63	63
Southwater Country Park	23	20	13	nc	nc	nc	nc	nc	33	33	32	30
Eastbourne Lakes	16	26	21	20	10	8	7	12	50	35	36	31
Hastings Alexandra Park	41	40	30	26	19	20	nc	nc	26	25	37	37
Average county total 2011 to 2020	514	519	434	226	166	171	238	304	474	539	562	551

In the early year SWBS Moorhens were found in 19 (16%) of the squares surveyed with a maximum of 15 on 18 Jan at Hastings.

During the BBS there were 117 total encounters from 48 (27%) of the squares surveyed with a maximum of five, again at Hastings, on 24 Apr. Breeding was confirmed in 67 tetrads and was probable in a further 13. The first fledglings were recorded on 6 Apr at Selden Farm (Patching).

In the late year SWBS 108 were encountered in 33 (22%) of the squares studied with a maximum of 15 at Rustington on 7 Nov. [PJ Plant]

Coot

Fulica atra 

Fairly common resident and common winter visitor.

Coots were recorded in 202 tetrads (20%), more than the 10-year average of 158. Monthly WeBS counts are shown in the following table.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	1198	1735	1161	690	580	565	1129	1458	1918	3018	2872	3229
Chichester Hbr	55	112	82	60	35	58	74	140	202	299	252	256
Chichester GP	nc	114	241	141	202	64	175	175	818	863	831	1040
Burton & Chingford Pond	98	91	70	53	45	62	90	143	111	157	187	148
Bewl Water	180	79	nc	nc	nc	nc	nc	nc	nc	157	258	281
Rye Bay	362	652	276	112	60	160	431	539	275	984	768	1044
Average county total 2011 to 2020	3235	2660	1450	686	593	816	1085	1648	2411	2919	3092	3416

The WeBS counts reveal lower numbers than the ten-year average during the first winter period but with figures nearer the average later in the year.

In the first winter period there were several three-figure counts additional to the WeBS counts in East Sussex with the best being 310 at Rye Hbr on 15 Jan, and 218 at Pett Level on 24 Jan. The highest count in West Sussex was at the Chichester GP complex on 16 Mar when 179 were present on the lakes there. At Burton MP, 111 on 6 Jan was notable.

Breeding was confirmed in 38 tetrads, down from 45 in 2020, and was probable or possible in another 15. The first nest building was seen at Hampden Park (Eastbourne) on 14 Mar and the first fledglings were five youngsters with two adults at Clayton (Hassocks) on 16 Mar. Breeding continued throughout the summer and into the early autumn with the last fledglings of the year being noted at Pagham Hbr on 11 Sep. Breeding was described as widespread at Rye Hbr and there were ten pairs at Pagham Hbr and eight at Medmerry.

As birds began to settle in to overwinter, counts rose as shown in the table above, with no counts higher than these. At Duncton MP there were counts of 170 on 15 Nov and 145 on 24 Dec. [BGR Ives]

Crane

Grus grus



Very scarce passage migrant and winter visitor. Rare in summer. Amber listed species of medium conservation concern.

The only record was of one at Pulborough Brooks on 12 Nov (P Thornton *et al.*). It flew off east late morning and was not seen again. The county total this century moves on to 78. [P James]



Little Grebe, Birdham, 30 August (Bob Brewer)

Little Grebe

Tachybaptus ruficollis



Scarce resident; passage migrant and fairly common winter visitor.

Little Grebes were recorded in 118 (12%) tetrads, slightly up on last year's 114 and the 10-year average of 108. The WeBS counts at the principal sites are recorded in the following table.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	70	111	64	57	54	36	64	117	123	186	227	212
Chichester Hbr	-	21	12	9	9	9	5	14	22	49	61	57
Pagham Hbr	8	5	1	2	4	2	-	1	8	15	13	33
Chichester Gravel Pits	nc	11	14	15	11	10	30	20	23	11	15	7
Burton & Chingford Pond	10	10	12	6	7	4	7	17	15	17	23	20
Cuckmere Haven	-	-	3	nc	nc	nc	nc	nc	-	5	23	25
Rye Bay	31	43	15	8	2	2	8	43	41	66	59	43
Average county total 2011 to 2020	187	166	104	46	34	40	49	98	148	189	190	198

Significant counts in the first winter period additional to the WeBS included 34 at Rye Hbr on 1 Jan, 17 at Cuckmere Haven on 16 Feb, 13 at Burton MP on 6 Jan and ten at Pett Level on 10 Jan.

Breeding was confirmed in 18 tetrads with probable breeding in eight and possible breeding in 11. Successful breeding was first confirmed on 2 May when two chicks were sighted at Pagham Hbr followed by young seen at Wickham Fm (Steyning) on the 3rd and at Rye Hbr on the 5th. The last

record was of four chicks seen on 28 Aug at Winchelsea Beach. Counts of breeding pairs included six at Rye Hbr, 15 at Pett Level, five at Pagham Hbr and three at Medmerry.

In the autumn and second winter period large counts not included in the WeBS included 52 at Birdham Pool on 15 Oct, 40 at Rye Hbr on 17 Oct, 28 at Pett Level Pools on 22 Aug and 28 at Cuckmere Haven on 20 Dec. [T Seabrook]

Red-necked Grebe

Podiceps grisegena

Very scarce winter visitor and passage migrant. Red listed species of high conservation concern.

The first was one flying east at Selsey Bill on 14 Feb (J Atkinson, A House) followed by one offshore at Goring on 26 Feb (MA & KM Galtry) and two at Arlington Res on the same date (JJ Everitt, J Wooldridge), one of which was in full summer plumage. One was still at Goring on 1 Mar (RA Ives) and 7 Mar (D Mason, DI Smith) and at Rustington on 5 Mar (T Allen) whilst at Selsey Bill one flew east on 4 Apr (J Atkinson, S Hill, BGR Ives), possibly the same individual seen periodically from 14 Feb at this site.

The first returning bird was seen on a roadside pool at Pett Level between 8 and 10 Nov (SJ Kuhn), later than usual for the first autumn record and the only record for November. During December one was at Selsey Bill on the 11th, 26th and 30th (J Atkinson, PS Bowley) and one at Church Norton on the 16th (A House). [C Davis]

Great Crested Grebe

Podiceps cristatus

Fairly common resident; passage migrant and winter visitor.

Great Crested Grebes were recorded in 133 tetrads (13%), the highest number ever and well above the 10-year average of 114. The WeBS counts are shown in the table below and in all months are below the ten-year averages.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	172	170	241	235	141	133	179	188	186	321	282	275
Chichester Hbr	1	13	35	16	9	12	1	4	16	22	17	13
Pagham Hbr	13	8	7	10	13	8	12	18	16	43	13	20
Chichester GP	nc	7	23	23	25	9	16	9	55	46	37	40
Ardingly Res	9	11	18	25	23	25	nc	11	12	16	14	12
Weir Wood Res	27	23	33	21	27	33	45	34	24	22	18	13
Arlington Res	20	14	27	28	12	15	39	40	25	25	30	8
Bewl Water	49	33	nc	nc	nc	nc	nc	nc	nc	95	88	58
Rye Bay	39	42	28	47	9	8	29	23	16	24	47	22
Average county total 2011 to 2020	415	422	264	169	139	144	198	361	449	361	321	280

In the first winter period, three-figure offshore counts were made in January at Bexhill, Fairlight and Pett Level with a high of 160 birds at the last-named site on the 13th. In West Sussex the highest count was 58 off Worthing on 26 Jan. There was little offshore movement noted in the spring with a best count of 9 E at Selsey Bill on 18 Apr and just 3 E and 8 W there in May.

Breeding was confirmed in 19 tetrads and was probable or possible in a further seven. Some early display was noted at Worth Park (Crawley) on 22 Jan whilst on 22 Feb a pair were nest-building under overhanging trees at Arlington Res. A nest was seen at Bewl Water on 2 Mar and at Chichester GP, Ardingly Res and Duncton MP nesting was recorded in April. The first fledglings were at Ifield MP on 16 May and breeding continued through the summer months and into the

autumn with the last recently fledged young reported at Rye Hbr on 17 Oct. No more than three chicks were recorded from any single nest.

Post breeding flocks of Great Crested Grebes gathered on inland waters as usual as indicated in the WeBS table. Offshore totals started to build in late November, with 76 off Worthing on the 20th and in December, 52 at Glyne Gap (Bexhill) on the 20th, 60 at Elmer Rocks (Middleton-on-Sea) on the 21st and 85 off Worthing on the 24th. [BGR Ives]

Slavonian Grebe

Podiceps auritus 

Scarce winter visitor and passage migrant. Red listed species of high conservation concern. Schedule 1 species.

The approximate minimum monthly totals, taking the highest day count as the minimum, were as follows:

	Jan	Feb	Mar	Apr		Oct	Nov	Dec
County total	15	15	10	1		1	10	12
Selsey Bill/ Church Norton	12	13	4	-		1	7	10

As usual, the prime area for Slavonian Grebes was on the sea between Selsey Bill and Church Norton, where they were recorded regularly throughout the first quarter, both offshore and flying past in either direction. Maximum counts during this period were nine offshore at Church Norton on 1 Jan and 13 at Selsey Bill on 5 Feb. Elsewhere the maximum count was just two birds at Goring on both 5 Jan and 8 Mar, at Climping from 4 to 9 Mar and at Elmer Rocks (Middleton-on-Sea) on 9 and 20 Mar. There were very few records east of Lancing with only single birds recorded at Splash Point (Seaford) on 23 Mar and Birling Gap on 31 Mar. One in summer plumage seen flying west at Rottingdean and east at Brighton Marina on 25 Apr was the last of spring.

One at Selsey Bill on 23 Oct was the only October record. Thereafter the species was seen regularly in the Selsey Bill/ Church Norton area throughout November and December, with a maximum of ten offshore at Church Norton on 11, 16 and 18 Dec. Elsewhere during this period there were singles at Climping on 22 Nov and 13 Dec, Worthing on the 27 Nov and 7 and 26 Dec, and at Lancing on 24 Dec. The only record for East Sussex was one at Sovereign Hbr Marina (Eastbourne) on 30 Nov. [C Davis]

Black-necked Grebe

Podiceps nigricollis 

Very scarce winter visitor and passage migrant. Amber listed species of medium conservation concern. Schedule 1 species.

Approximate minimum monthly totals were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly total	-	-	10	7	3	1	1	1	3	4	3	1

There were no records for January and February. One arrived at Rye Hbr on 16 Mar and was seen regularly throughout the year and into 2022. An additional two were seen at Rye Hbr on 31 May. Elsewhere two were at Pett Level and eight at Splash Point (Seaford) on 31 Mar and six, in summer plumage, at Brighton Marina on 24 Apr.

Additional single birds were seen at Rye Hbr on 25 Sep and again from 3 to 9 Oct. A single juvenile was present inland among Little Grebes on a farm reservoir at Bilsham (Yapton) from 19 to 23 Aug followed by an adult at the same location from 13 Oct to 1 Nov. There were two other inland records: one at Arlington Res on 11 Sep and one at Barcombe Res on 11 Oct. A single was offshore at East Head (Chichester Hbr) on 14 Nov. [C Davis]

Stone-curlew

Burhinus oedicnemus

Rare passage migrant. Formerly a scarce breeding summer visitor which since 2006 has tentatively started to recolonise the county. Amber listed species of medium conservation concern. Schedule 1 species. Section 41.

Stone-curlews were recorded in the three sites where they bred in 2020 and at one additional site. All were on the South Downs. There was one additional record from outside these known breeding sites. As in previous years the Sussex Stone-curlew Project team worked with site managers making them aware of the locations of nest sites to give the birds the best chance of breeding successfully.

The first confirmed record was on 22 Mar. This was in an area that had a breeding attempt in 2018, successful breeding in 2019 and probably so last year, although the exact location of the nest was different each time. The nest itself was not found but on 9 Jul two adults were present with a recently fledged youngster. At a second site that has been occupied since 2015, there were two birds present on 17 Apr; however they disappeared and on 24 Apr a pair were seen at a site approximately 3 km further south. They were not seen again at the southern site but the original site was re-occupied by 28 May. Only one bird was confirmed to be present in May and no nest or chicks were seen at the site this year.

The above site had previously been occupied by a pair consisting of a locally ringed bird and an unringed bird. However, this year the pair was found on 26 Apr at a different site some distance away. This was, in fact, the site from which the ringed bird had fledged in 2011, its parents having last nested there in 2012. The pair were confirmed to have a nest down by 1 May and the eggs hatched on 14 May. Only one chick was ever seen but by 25 Jun this was confirmed as fledged when it was seen to fly, albeit somewhat clumsily.

At the final site, first known to be used in 2017, a pair nested within a few metres of the 2019 nest site and hatched two chicks about the 28 May. It was suspected that the site held a second pair last year and on the 26 May birds, distinct from the known pair, were heard calling. A second pair was confirmed on 31 May. They had a nest about 850m distant from the original pair that was, unfortunately, only observable from a great distance. The first pair fledged two chicks and the second one chick.

As far as is known there were no second nesting attempts this year although suitable habitat was available. The sighting outside the known nesting areas was at Beachy Head on 14 May when one flew north east quite low above the National Trust car park and disappeared over a ridgeline. It is possible that this was a late migrant but there is suitable breeding habitat in the vicinity. Three other areas of the South Downs that have had recent Stone-curlew sightings were surveyed, under licence, using playback but without locating any Stone-curlews.

There were therefore a minimum of five territories on the South Downs this year with at least four pairs successfully fledging chicks. With a minimum of five chicks fledged this year the upward trend for the species in Sussex continued.

The Sussex Stone-curlew Project, actively supported by the RSPB and Sussex Ornithological Society, remains indebted to the support of the landowners, farmers and gamekeepers whose efforts have allowed the breeding success we have seen so far. There is still a long way to go before the recolonization of Sussex is assured, and the RSPB and SOS urge everyone to place the welfare of the birds first. Stone-curlews are specially protected under Schedule 1 of the Wildlife and Countryside Act (1981) and the EU Birds Directive, making it an offence to disturb or tape-lure birds without a licence. At this stage it is recommended that birdwatchers do not go out purposely attempting to find Stone-curlews in Sussex, however if birds are stumbled upon by accident please do pass

the record on to the Project Team (contact: sussexstonecurlew@gmail.com). If sites are known and conservation measures can be implemented, the probability of successful breeding improves significantly. [RA Black, D Green]

Oystercatcher

Haematopus ostralegus

Scarce breeder; fairly common passage migrant and common winter visitor. Amber listed species of medium conservation concern.

Oystercatchers were recorded in 113 (11%) tetrads during the year. The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	635	1625	1364	810	835	548	735	1813	843	1772	1398	1769
Chichester Hbr	-	995	826	424	657	344	340	1433	669	1230	994	1376
Pagham Hbr	134	187	67	60	22	38	113	103	43	63	114	114
Rye Bay	489	436	438	303	138	160	264	269	126	405	277	251
Average county total 2011 to 2020	1705	1786	1169	801	547	506	679	1129	1216	1432	1844	1567

Numbers and distribution were broadly similar to those of recent years, with the main concentrations at either end of the county. The largest individual counts during the first quarter of the year were at Rye Hbr with 489 on 19 Feb and at Pilsey Island (Chichester Hbr), with 450 on both 27 Feb and 13 Mar. Elsewhere, the West Sussex beaches produced the highest counts with 38 at Elmer Rocks (Middleton-on-Sea) on 6 Jan and 47 at Goring on 4 Feb.

Spring passage was light as usual and the highest day total at seawatching sites was 20 E at Beachy Head on 16 May.

At least 80 pairs bred, continuing the gradual increase of the past 15 years. About 36 pairs bred at Rye Hbr where hatching and chick survival were good, and at Pett Level, 12 pairs also did well, raising 20 young. At Pagham Hbr, only two young were fledged from 15 pairs, and at Pilsey Island, four pairs did not get past the egg stage, possibly due to corvid and hedgehog predation. Medmerry held five pairs and both Thorney Deepes and Arundel WWT had two. There were single pairs at Cuckmere Haven (two chicks produced) and on North Stakes Island (Chichester Hbr).

A pair returned to the tennis club roof at Rye for their 13th year, and one showing distraction display in Shoreham may have been another roof-nesting pair at a regularly-used site. As in previous years, there were regular reports during the breeding season of one or two in the lower Ouse Valley, and this year, also well inland at Weir Wood Res. In addition, pairs were recorded at Snowhill Marsh (West Wittering) and Brede Levels.

The autumn brought the highest individual counts of the year with 1000 at Pilsey Island on 17 Sep and 1065 at West Wittering. October totals of 450 at Rye Hbr on the 18th and 80 at Cuckmere Haven on the 21st were also notable.

In the final two months, significant counts other than WeBS included 400 at Rye Hbr on 6 Nov and 300 at Pagham Hbr on 16 Nov. Away from the main harbours, the highest count was of 60 roosting on the beach at Telscombe Cliffs on 22 Nov. [CJR Barfield]

Black-winged Stilt

Himantopus himantopus 

Very scarce spring migrant. Bred in 2014. Amber listed species of medium conservation concern. Schedule 1 species.

This former vagrant is now annual in spring with 2013 the last blank year in Sussex. The sole record in 2021 was of a pair at Castle Water (Rye Hbr) from 27 Apr (JE Tomlinson *et al.*). Three chicks were seen on 5 Jun, four on 17 Jun and a fledged chick on 9 Jul. Both adults were still present the following day but were not seen subsequently (BJ Yates). For a fuller account of this nesting attempt go to <https://sussexwildlifetrust.org.uk/news/black-winged-stilt-diary-2021>.

This is the second time that Black-winged Stilts have bred in Sussex following the successful nesting at Medmerry in 2014. The county total moves on to approximately 59 (adults and juveniles), of which most (41) have been this century. [P James]

Avocet

Recurvirostra avosetta 

Scarce winter visitor and passage migrant; scarce and localised breeder. Amber listed species of medium conservation concern. Schedule 1 species.

Avocets were recorded in 47 tetrads during the year. The monthly WeBS totals at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	7	48	129	39	141	113	18	-	2	16	35	85
Chichester Hbr	-	45	41	-	-	-	-	-	-	3	25	55
Pagham Hbr	7	-	52	2	3	-	2	-	-	12	10	30
Rye Bay	-	1	33	34	102	105	14	-	-	1	-	-
Average county total 2011 to 2020	47	59	88	88	104	94	20	9	4	9	38	36

Although relatively few counts in January were received, there were notable roosts of 30 on the 1st and 24 on the 28th at Thorney Island and small numbers through the month at Pagham Hbr with a maximum of 20 on the 31st. The only other January records were one at Playden (near Rye) on the 15th and at Rye Hbr where a single was reported as having overwintered and four were present on the 30th.

February saw the usual influx in the west of the county, with peaks at Pagham Hbr of 75 on the 7th and 78 on the 24th. Peak counts at Rye Hbr came later in March, with 62 on the 9th and 72 on the 31st. As in previous years, easterly offshore spring passage was slight though, with counts of 15 at Seaford on 9 Apr, seven off Lancing on 20 Apr and four off Selsey Bill on 23 Apr. Additionally, small numbers stopped off at various sites along the coast though a count of 23 at Jury's Gap on 23 May was notable. Inland, away from Pulborough Brooks, there were records of two at Arlington Res on 9 May and two at Amberley on 16 May. At Pagham Hbr, numbers reduced during May from 26 on the 8th to nine on the 30th.

Breeding numbers returned to normal after a poor year in 2020, with a total of about 90 breeding pairs. At Rye Hbr, about 40 pairs hatched a good number of chicks though few fledged; at Pett Level, 16 pairs nested but no young fledged and birds were present with some evidence of breeding at the Midrips on the border with Kent. In West Sussex there were 21 pairs at Medmerry and ten at Snowhill Marsh. There were again two pairs at Pulborough Brooks, one of them raising three chicks.

In July and August, all double-figure counts came from Pagham Hbr and Rye Hbr. At the former, there were up to 38 early in July and at the latter, there were 30 on 1 Aug.

From September through to year end, most double-figure counts came from the western harbours, where numbers built up from mid-October, with December peaks of 55 at Thorney Island on the 4th and 47 at Pagham Hbr on the 28th. Away from these two sites, the highest count was of 30 at Rye Hbr on 13 Dec. Other notable records in the final two months were singles at Pulborough Brooks on 9 Nov, on the lower Adur on 26 Dec and six at Pett Level on 22 Dec. [CJR Barfield]

Lapwing

Vanellus vanellus



Scarce or fairly common resident and very common winter visitor. Red listed species of high conservation concern. Section 41.

Lapwings were recorded in 220 tetrads, above the 10-year average of 172 (range 157 to 211) and the highest since 2010. The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	7743	7933	367	147	95	196	636	1126	460	1629	2340	8989
Pagham Hbr	1924	826	13	6	1	6	56	153	22	114	150	1205
Arun Valley N of Arundel	2251	4267	55	56	7	32	35	51	25	198	464	2129
Pevensey Levels	39	916	26	11	13	5	-	2	-	7	3	782
Rye Bay	1871	1104	211	37	20	94	374	624	141	900	795	3901
Average county total 2011 to 2020	10889	9581	901	205	171	329	613	1020	1012	2598	6295	10091

During the first winter period, additional large counts included 1000 at Iford Brooks on 17 Jan, 2000 at Thorney Deepes on 28 Jan, 1700 at Pagham Hbr on 1 Feb, 1250 at Henfield Levels on 17 Feb and 2500 at Pulborough Brooks on 20 and 21 Feb. Soon after the February WeBS, count sizes reduced and the highest number recorded was 250 at Pulborough Brooks on 5 Mar.

Breeding was confirmed in 25 tetrads, well up from the ten in 2020 and probable breeding was recorded in a further 36 tetrads, an increase from 27 the previous year. The first report of display was at Pulborough Brooks on 27 Feb, the first nest at Arundel WWT on 21 Mar and the first chick seen at Pett Level on 18 Apr though distraction display had been seen on 15 Apr at Arundel WWT. Fledging data from key sites were: seven pairs at Medmerry produced none; seven pairs at Pagham Hbr produced none; 26 pairs at Pulborough Brooks produced 36; one pair at Amberley Wild Brooks produced one; 19 pairs at Pett Level produced about ten; and eight pairs at Rye Hbr produced about four. The average fledging success from these sites was around 0.75 per pair but clearly Pulborough Brooks and Pett Level are crucial in helping to maintain the Sussex population. Other sites with encouraging sightings of fledged chicks were: Henfield Levels (two on 7 May); Barnham (three on 1 Jun); Ashdown Forest (three on 1 Jun); near Woods Mill (three on 9 Jun); Wepham Down (four on 13 Jun); Edburton (about four on 13 Jun); and Combe Valley CP (11 in the breeding season). Birds still on the nest on 13 Jun at Rodmell and on 15 Jun at Pett Level were suggestive of a longer than normal nesting season. The total number of breeding pairs appears to have been around 100 pairs.

As summer progressed post-breeding gatherings built up. For example, at Rye Hbr, numbers grew from 63 on 13 Jun to 250 on 25 Jun. In West Sussex the first three-figure flock was 116 at Pagham Hbr on 16 Jul.

On 10 Oct at Scotney GP, there were 500 and the first four-figure count was 1300 at Broomhill Level near Scotney GP on 13 Nov. A westerly movement of 450 was noted over Medmerry on the morning of 9 Nov. In December, in addition to the WeBS counts, other notable reports included 2000 at Pagham Hbr on the 26th and 1300 at Pevensey Levels on the 18th. [PK Holland]



Lapwing, Pagham Hbr, 12 September (Leigh Provost)

Golden Plover

Common winter visitor and passage migrant; rare in summer.

Pluvialis apricaria 

Golden Plover was reported from 56 tetrads (6%), compared with a 10-year average of 46. The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	1108	2506	350	-	-	-	-	18	-	679	1035	2357
Chichester Hbr	-	50	-	-	-	-	-	-	-	276	534	4
Pagham Hbr	428	400	-	-	-	-	-	1	-	3	1	50
Pevensey Levels	-	546	-	-	-	-	-	-	-	-	-	3
Rye Bay	680	1500	350	-	-	-	-	17	-	400	500	2000
Average county total 2011 to 2020	1460	1465	484	19	1			70	179	1009	2055	1344

The table below shows the highest monthly non-WeBS counts in Rye Bay and the western harbours.

	Jan	Feb	Mar	Oct	Nov	Dec
Western harbours	500	400	200	400	2000	800
Rye Bay	1500	1500	650	600	1500	2500

Numbers at the main sites were broadly similar to recent years, though reports suggest a great deal of mobility, particularly in Rye Bay, where large flocks at various locations between Pett Level and Scotney Court Fm no doubt involved the same birds. Singles and small groups were seen at less usual sites during the first two months, particularly during hard weather in mid-February, when there were reports from the lower Arun Valley, the brooks around Bognor Regis, Henfield Levels, Goring Gap and Lewes Brooks. On the 14th ten were at West Rise Marsh (Eastbourne), and a WeBS

count of 546 on Pevensey Levels that day was the highest there since 1995, although the birds did not linger. Pulborough Brooks hosted one or two from 1 Jan until 8 Mar, with 16 on 30 Jan.

Evidence of wider movements began on 28 Mar, when 45 flew north from the sea at Lancing during the evening and 29 were seen also on their way north at Maynard's Green (Heathfield). One was at Balcombe on 6 Apr and five, some in summer plumage, were at Iford Brooks the next day. The last spring records were 27 at East Guldeford on the 18 Apr, with birds still present at Pagham Hbr the next day.

There were no records in May or June and one at Pagham Hbr on 2 Jul was the only record that month. The next was one at Rye Hbr on 3 Aug, but in West Sussex there were no further records until one at Pagham Hbr on the 22nd. Small waves briefly passed through both the above sites during September, and the usual odd birds were recorded along the coast and South Downs during the autumn, the largest group being 13 at Berwick on 13 Sep.

Larger numbers began to arrive from mid-October. The mobility of flocks was again shown by a number of records, including 2000 moving west high over Medmerry on 9 Nov and 2500 moving east along the coast at Jury's Gap on 25 Dec. [CJR Barfield]

Grey Plover

Pluvialis squatarola



Common winter visitor and passage migrant. Amber listed species of medium conservation concern.

Grey Plover was reported from a total of 50 tetrads. The 10-year average is 49, reflecting the reliance of this species on traditional sites. The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	616	1162	581	63	-	-	1	125	177	260	649	1646
Chichester Hbr	-	470	173	31	-	-	-	119	164	161	419	1202
Pagham Hbr	595	590	372	15	-	-	1	5	13	99	226	428
Average county total 2011 to 2020	1797	1302	1025	190	73	52	95	261	372	693	1214	1468

No counts exceeded WeBS in the first part of the year, but the highest numbers within Chichester Hbr were at West Chidham, with 230 on 26 Feb, and Fishbourne Creek, with 101 on 9 Jan. Away from the main concentrations there were good numbers as usual along the western beaches, with 46 at Goring on 5 Feb and 37 at Littlehampton West Beach on 10 Jan. On the lower Adur, five on 25 Jan was the highest count of the year, at Pett Level the maximum was 21 on 14 Feb and at Rye Hbr 47 on the same date.

Offshore spring passage totalled 153 across all seawatching sites, the highest day total being 20 E at Worthing on 23 Apr. Small numbers were recorded in April and May, but a one-day influx of 150 at Pagham Hbr on 25 Apr is a good example of birds stopping off during migration. In June all records were in single figures except 28 at Medmerry on the 8th, and the only July records were one or two at Pagham Hbr from the 13th to the 31st and one at Rye Hbr on the 1st. The maximum non-WeBS autumn counts at Pagham Hbr were 22 on 7 Aug and 60 on 25 Sep. There were 45 at Pilsley Sands (Chichester Hbr) on 11 Aug.

In the last three months no counts exceeded WeBS, but in Chichester Hbr there were 731 at Rookwood (West Wittering) on 4 Dec, 215 at West Chidham on 6 Nov and regular counts of between 120 and 160 at Pilsley Island. The highest count along the western beaches was 55 at Climping on 4 Dec, and at Rye Hbr 46 on the 16th. Up to three lingered at Cuckmere Haven from 4 to 30 Oct.

The only inland records were of singles at Arundel on 26 Jan, Lewes Railway Land LNR on 28 Apr and Pulborough Brooks on 5 Apr and 26 Oct. [CJR Barfield]

Ringed Plover

Scarce breeder; fairly common passage migrant and winter visitor. Red listed species of high conservation concern.

Charadrius hiaticula

Ringed Plover was recorded in 70 tetrads (7.1%) during the year, compared with the 10-year average of 60. The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	13	90	36	84	116	56	59	1137	1087	117	162	133
Chichester Hbr	-	60	-	57	62	19	51	965	1018	18	31	2
Medmerry	nc	nc	nc	3	2	-	1	100	31	-	nc	57
Pagham Hbr	1	4	9	6	34	15	1	40	20	10	34	49
Lower Ouse Valley	3	5	10	3	2	-	-	-	-	31	23	20
Rye Bay	9	12	17	14	16	19	6	21	11	37	58	4
Average county total 2011 to 2020	188	184	102	69	204	51	51	468	259	133	160	148

In addition to the above counts there were 50 at Pilsey Island (Chichester Hbr) on 23 Feb, 40 at Medmerry on 28 Jan, 30 at Pagham Hbr on 2 Jan and 78 at Rye Hbr on 7 Mar. The largest counts at sites not listed in the WeBS table came from Widewater (Lancing), with 57 on 13 Jan and 80 on 1 Feb, Goring Gap with 45 on 28 Jan and 15 Feb, and the R Adur at Shoreham, with 43 on 8 Jan.

Breeding was confirmed at seven sites and probable at one involving a total of at least 48 pairs, very similar to recent years. At Rye Hbr at least 25 pairs bred, with hatching success reported as good. At Pagham Hbr 11 pairs fledged six young, and at Medmerry five pairs also fledged six. In Chichester Hbr, there were four pairs at Pilsey Island but no young were seen, a pair nested at North Stakes Island and another at East Head had at least one chick. A pair were once again persistent at Elmer Rocks (Middleton-on-Sea), producing one chick at the second attempt on a heavily disturbed beach, but a pair at Brighton Marina were lucky to find an area of shingle with no public access to nest on.

During the autumn migration the peak counts at Pilsey Island were 950 on 20 Aug and 1000 on 11 Sep. The maximum counts at other sites were 140 at Medmerry on 14 Aug, 100 at Pagham Hbr on the 17th and the same at Rye Hbr on 14 and 15 Sep. Elsewhere the highest figures were 70 on the R Adur at Shoreham on 15 Sep and 49 at Goring Gap on 30 Aug.

In the last two months counts significantly higher than the WeBS were 86 at Pilsey Island on 15 Dec, 80 at Pagham Hbr on 7 Nov, 55 at Widewater on 18 Nov and 42 at Rye Hbr on 12 Dec.

Inland records all came from two sites during the migration periods. At Arlington Res there were singles on 4 and 22 May and 7 to 10 Aug, and at Pulborough Brooks up to three from 15 Apr to 19 May (with five on 8 May), one or two from 17 Aug to 15 Sep (with seven on 18 Aug), and singles on 19 Nov and 1 and 23 Dec. [CJR Barfield]

Little Ringed Plover

Scarce breeding summer visitor and passage migrant. Schedule 1 species.

Charadrius dubius

Little Ringed Plovers were recorded in 42 tetrads (4.3%), compared with the 10-year average of 26. The minimum monthly totals were as follows:

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
No. of sites	13	25	14	9	8	13	7	0
No. of birds 2021	30	52	25	22	23	32	13	0
Average county total 2011 to 2020	13	28	25	27	39	21	9	<1

The first record was of one at Rye Hbr on 6 Mar, eight days earlier than the 10-year average and equal to the previous earliest record in 1990, though the first arrivals at Medmerry and Pulborough Brooks were not until the 19th and 20th. First arrival dates continue to advance gradually, the average being now six days earlier than 20 years ago.

A larger than usual influx in early April brought records from a number of less usual locations, including Balcombe, Amberley Wild Brooks, Partridge Green, Henfield, Alfriston, Pevensey Levels, Combe Valley CP and Wadhurst, but most of these quickly moved on. Nine at Pulborough Brooks on 30 Mar was the largest count of the year.

Breeding was confirmed at four sites and probable at another four, involving a total of at least 12 pairs, very similar to recent years. There were at least three pairs at Rye Hbr with three chicks seen, and at Medmerry a pair fledged three. At Pett Level two pairs failed to produce young, and a pair nested at Gatwick Airport. Two pairs at Pulborough Brooks and pairs at Warnham LNR, Pagham Hbr and Waltham Brooks also probably bred. Birds were also recorded regularly during the spring and summer at Weir Wood Res and Broomhill Level, although with no proof of breeding.

During the late summer the largest counts were sevens at Medmerry on 22 Jul and Pett Level on 14 Aug. Most records came from the breeding areas, with reports also from Thorney Island, Selsey Bill, High Salvington, Arlington Res, Cuckmere Haven and the Eastbourne Lakes. The final record was of one at Rye Hbr on 22 Sep, two days later than the 10-year average last date. [CJR Barfield]



Little Ringed Plover, Cuckmere Haven, 29 August (Gary Faulkner)

Kentish Plover

Charadrius alexandrinus

Very scarce spring and autumn passage migrant; formerly bred. Schedule 1 species.

It was a good year, with a male on the beach at Jury’s Gap with Ringed Plovers on 18 Jun (M Robards, R Antonini) followed by another bird seen at Pagham Hbr on 16 Jul (CA Holter, J Holter). Both records have been accepted by BBRC. This makes 2021 the first year with multiple records since 2009. Although the number of records is down this century, the species remains almost annual, with only two blank years since 2000, and there are now eight years in the 21st century with multiple records, though most of these were soon after the millennium. There have now been 34 records since 2000. Unfortunately, neither of this year’s birds could be widely enjoyed. [DK Campbell]

Eurasian Whimbrel

Numenius phaeopus

Common passage migrant; very scarce non-breeding summering and wintering species. Red listed species of high conservation concern. Schedule 1 species.

Whimbrels were reported from 75 tetrads (7.8%) during the year, equal to last year’s record total and compared to a 10-year average of 60. The WeBS counts from the principal sites were as follows.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	1	1	1	27	11	10	63	37	23	3	2	1
Chichester Hbr	-	-	-	11	10	10	39	25	15	2	-	-
Pagham Hbr	1	1	1	-	-	-	7	8	4	1	2	1
Average county total 2011 to 2020	1	2	3	51	75	7	69	83	17	3	3	1

The wintering individual at Church Norton from 2020 was recorded from 1 Jan to at least 31 Mar. The only other records in the first two months were of one at Cuckmere Haven on 2 Jan, one at Bosham between 21 Jan and 5 Feb and two at Newhaven Tide Mills on 27 Feb.

The first record of offshore passage was of 3 E at Splash Point (Seaford) on 23 Mar. The monthly totals of eastbound birds from the main seawatching sites are shown below.

	Apr	May	Peak movement
Selsey Bill	449	17	112 on 24 Apr
Worthing & Goring	558	16	133 on 24 Apr
Telscombe Cliffs	46	11	10 on 19 Apr
Splash Point	681	132	150 on 23 Apr
Birling Gap	131	3	65 on 24 Apr

There were 31 inland records during spring migration, mostly from the river valleys and involving fewer than three birds. The largest spring coastal gatherings were 91 at Pilsey Island (Chichester Hbr) and 65 at Rye Hbr on 30 Apr and 42 at Cuckmere Haven on the 22nd. On 7 May there were 30 at Pagham Hbr and 26 at Pett Level and the second week of May saw a brief flurry of late migrants, including 23 in Pagham Hbr and 16 at Pett Level on the 11th.

Numbers were in single figures until 23 were counted at Pilsey Island on 23 Jul, but the highest total of the autumn was 70 at Rye Hbr on 14 Aug.

Presumably the same bird returned to winter at Church Norton from at least 11 Sep to the end of the year, and there were also two in Pagham Hbr on 7 and 23 Nov. The only other records in the last two months were of one in Chichester Hbr intermittently from 9 Oct to 28 Dec. [CJR Barfield]

Curlew

Numenius arquata

Common passage migrant and winter visitor; formerly a very scarce breeder. Red listed species of high conservation concern. Section 41.

Curlews were recorded in 89 (9%) of tetrads this year, compared with the 10-year average of 84. The monthly WeBS counts at the principal sites were as follows.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	597	990	789	677	9	233	605	1200	1517	1755	1138	1211
Chichester Hbr	91	663	556	597	9	192	462	870	1300	1535	784	924
Pagham Hbr	154	243	92	78	-	15	110	235	121	109	164	134
Rye Bay	272	55	95	-	-	26	27	30	91	73	116	128
Average county total 2011 to 2020	1604	1505	1352	317	64	188	1010	1288	1505	1226	1335	1398

During the early part of the year the only count higher than the WeBS was 379 at Rye Hbr on 4 Feb, the highest of the year there. At around the same time there were also unusually high counts at two other sites, with 100 in the lower Cuckmere Valley on 29 Jan (a site record) and 120 at Newhaven Tide Mills on 14 Feb (equalling the site record on 21 Jan 2014). These high totals were most likely the result of a spell of hard weather on the continent pushing birds west into Britain.

Offshore passage was as usual light, the highest day total by far at seawatching sites was 38 E at Splash Point (Seaford) on 19 Apr. Thereafter there were no counts of over 20, and in May all counts were in single figures except for 15 at Rye Hbr on the 6th.

Numbers returned to double figures from 13 Jun and three figures from 23 Jul, and the Thorney Island roost showed the usual protracted autumn peak, with 800 on 11 Sep and 750 on 9 Oct. The 1% threshold of 1200 for a site of national importance was exceeded at Chichester Hbr in those two months. At Tide Mills regular counts also revealed an autumn peak, with totals between 50 and 76 from 25 Jul until 5 Sep, when there were 200 at Rye Hbr. In the last two months, in addition to WeBS, there were 200 at Pett Level on 21 Nov and the same at East Guldeford on 9 Dec.

Inland records in March included singles at Graffham on the 4th, Amberley Wild Brooks on the 20th and Uckfield on the 23rd; and in April there was one at Warnham on the 20th and three at The Burgh on the 29th. One was heard on Ashdown Forest (a former breeding area) on 28 Jun and two were at Weir Wood Res on 5 Sep. At Pulborough Brooks one or two were recorded sporadically from 18 Mar to 23 Apr, then regularly from 2 to 10 May, followed by singles on 4 and 27 Jul, five on 8 Aug, one on the 28th and finally one on 29 Nov. [CJR Barfield]

Bar-tailed Godwit

Limosa lapponica

Fairly common winter visitor and passage migrant. Amber listed species of medium conservation concern.

Excluding passage migrants, the great majority of birds were recorded at Chichester Hbr, as indicated by the monthly WeBS counts:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	9	193	86	23	-	-	-	22	19	417	65	226
Chichester Hbr	-	180	70	17	-	-	-	22	18	407	63	210
Pagham Hbr	9	12	16	3	-	-	-	-	-	1	1	16
Average county total 2011 to 2020	579	549	249	47	56	16	34	60	47	84	297	402

Numbers recorded during the WeBS counts were well below the ten-year average in all months except October, with birds being recorded on land at only seven sites during the first winter period.

The only non-WeBS, notable count was 62 on 30 Mar at Pagham Hbr. Records elsewhere included singles at Pett Level on 17 Feb, Cuckmere Haven on five dates in mid-February and Medmerry on 9 Mar, while two were recorded at Eastbourne on 8 Feb and up to four at Rye Hbr on five dates from 3 to 30 Mar.

	Apr	May
Selsey Bill	1095	8
Worthing & Goring	376	6
Telscombe Cliffs	125	-
Splash Point (Seaford)	2219	44

Spring coastal passage, computed on the basis that the minimum recorded on any one day was the highest count at any one site on that day, totalled 2750, with all but four moving eastwards; this is above the ten-year average of 1866. The table gives the April and May totals at four of the main sites.

Much of the spring passage occurred from 19 to 26 Apr. The highest day count was 938 E on 21 Apr at Splash Point (Seaford), including 810 between 16:50 hr and 18:50 hr. The following day, there were a further 358 E at Splash Point in 6½ hr and 533 E at Selsey Bill in 6¼ hr. Spring passage had virtually ended by 1 May, when there were 36 E at Splash Point. The largest counts on land coincided with the peak period of sea passage, these being 60 in Chichester Hbr on 15 Apr, 36 at Rye Hbr and 12 at Cuckmere Haven on 22 Apr, 80 in Pagham Hbr on 24 Apr, and 40 at both Medmerry and Scotney GP on 27 Apr. A noteworthy inland record was of ten at Weir Wood Res on 24 Apr, with two there on 27 Apr.

The only June records comprised three records of singles at Pagham Hbr, and one record of two birds and two of singles at Rye Hbr towards the end of the month. July records included five at Pagham Hbr on the 12th and single birds at Shoreham-by-Sea on the 13th and 26th. During the autumn and second winter period the WeBS produced the highest counts, with the exception of 70 at Pagham Hbr on 22 Aug, 16 there on 4 Nov and 216 in Chichester Hbr on 19 Nov. Elsewhere fewer than five were counted apart from 12 at Goring Gap on 15 Sep. [MC Daniel]

Black-tailed Godwit

Limosa limosa 

Fairly common but localised winter visitor and passage migrant; scarce non-breeder in summer. Red listed species of high conservation concern. Schedule 1 species. Section 41.

Records came from 57 tetrads (5.5%), compared to 55 in 2020, but the great majority of birds were recorded at Chichester Hbr, Pagham Hbr and Pulborough Brooks. The 1% GB threshold for the species being present at a nationally important level is 390 and was exceeded on several occasions during the year at all three sites, and especially Chichester Hbr. The dominance of the sites is reflected in the monthly WeBS counts:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	343	895	372	313	5	28	166	218	215	288	696	940
Chichester Hbr	30	474	93	171	-	-	45	30	72	157	661	724
Pagham Hbr	227	403	276	137	-	8	110	176	110	125	27	122
Arun Valley N of Arundel	86	18	-	4	4	-	5	6	-	1	6	84
Average county total 2011 to 2020	907	568	421	167	55	56	85	243	267	632	709	829

Numbers at the start of the first winter period were relatively high. Counts made on 3 Jan included 650 at Pulborough Brooks and 500 at Pagham Hbr, while 330 were at Chichester Hbr on 7 Jan. Numbers at the latter site increased to 500 in late February when numbers at Pagham Hbr and Pulborough Brooks both fell to 200, although the movement of birds between Pulborough Brooks and Amberley Wild Brooks made estimating overall numbers in the Arun Valley difficult. By early March, numbers had reduced at all sites, although 200 were recorded at Chichester Hbr on 5 Mar and 276 were at Pagham Hbr on 14 Mar.

Away from the three main sites, the only records to the end of February included seven at Medmerry on 2 Jan, two at both East Guldeford Level and Henfield Level on 24 Feb, and one at Lidsey on 26 Feb. There was a modest increase in March, with single birds or small flocks seen on the beach at Medmerry, Goring Gap, Henfield Levels, Iford Brooks, West Rise Marsh (Eastbourne), Pett Level and Rye Hbr. The only seawatching records during the first winter period were of 4 W past Goring Gap on 17 Mar and 1 W past Selsey Bill on 27 Mar. At least one was heard after dark at Hove on 21 Mar.

During April, the only significant numbers were at Chichester Hbr, where there were 171 on 10 Apr, and at Pagham Hbr, where there were 137 on 11 Apr. Small numbers were seen at the latter site throughout May, but records elsewhere were sparse. June records came from five sites, with a maximum of 50 at Pagham Hbr on 25 Jun and up to 18 at Pett Level from 13 to 23 Jun. The only seawatching records during the second quarter of the year comprised 6 E at Splash Point (Seaford) on 1 May, another 6 E there on 8 May, and 1 W past Selsey Bill on 21 May.

During the third quarter birds were seen at ten sites with most recorded at Pagham Hbr, where the maximum count was 176 on 22 Aug, and Chichester Hbr, where 89 were recorded on 11 Sep. The latter site hosted most of the county's birds from October to mid-December, with numbers there climbing from 400 on 23 Oct to 724 on 4 Dec, but in the second half of December the focus shifted to Pulborough Brooks, where 500 were counted on 28 Dec.

Seawatching records during the second half of the year were limited to single birds west past Worthing on 13 Jul and Selsey Bill on 26 Dec. [MC Daniel]



Black-tailed Godwit, Fishbourne, 17 April (Bob Brewer)

Turnstone

Arenaria interpres

Fairly common winter visitor and passage migrant; scarce non-breeder in summer. Rare away from the coast. Amber listed species of medium conservation concern.

Turnstones were recorded in 81 tetrads (8.4%), higher than the 10-year average of 70. The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	334	449	441	115	33	9	79	86	186	290	244	192
Chichester Hbr	11	158	192	55	2	1	-	57	45	51	121	103
Pagham Hbr	26	116	55	3	1	2	7	-	23	97	32	56
Climping Gap	250	96	69	nc	nc	nc	nc	nc	nc	nc	nc	nc
Lower Adur Valley	nc	nc	12	12	nc	nc	-	nc	63	34	15	3
Bexhill Glyne Gap	nc	nc	10	24	nc	nc	nc	nc	22	65	24	9
Rye Bay	22	28	61	16	26	6	37	-	14	17	10	7
Average county total 2011 to 2020	562	485	453	172	57	21	44	174	255	312	389	429

In the first week of January there were records of more than ten at Dell Quay (17), Selsey Bill (30), Pagham Hbr (34), Elmer (15), Climping (32), Kingston Gorse (35), Goring Gap (30), Worthing (24), Shoreham (30), Brighton Marina (20), Norman's Bay (126) and Rye Hbr (35), which are reasonable winter numbers at regular places. In the first winter period the maximum was 250 at Climping in the January WeBS. At Goring Gap there were 132 on 26 Feb, 130 on 27 Mar and 118 on 29 Apr. Coastal movement from January to March at Selsey Bill was 79 E and 91 W and in April and May 115 E and 77 W. In May the largest count was 50 at Pett Level on the 2nd and the only inland record was at Arlington Res on the 21st and 22nd.

In June there were records from 11 broad locations; the highest counts were 15 at Langney Point (Eastbourne) on the 14th and 23 in the R Adur estuary on the 19th, fairly typical numbers of mid-summer non-breeders. Numbers increased in July: 52 at the R Adur on the 24th, 32 at Rye Hbr on the 25th, and 32 flew west at Selsey Bill on the 31st.

There were 90 on the beach at Selsey Bill on 14 Aug and similar numbers there for several days, 53 at Goring Gap on the 20th and in September the highest counts were 100 at Pagham Hbr on the 25th, 70 and 86 at Goring Gap on the 5th and 6th respectively. During October the highest count was 90 at Rustington; offshore the monthly total past Selsey Bill was 3 E and 93 W.

During the second winter period, the highest November count was 120 on the 3rd at Pagham Hbr, the only three-figure count in the month and in December the largest count was 198 at Climping. There were no very large counts in East Sussex during this period, the highest being 35 at Jury's Gap on 25 Dec. [PK Holland]

Knot

Calidris canutus

Fairly common winter visitor and scarce to fairly common passage migrant. Amber listed species of medium conservation concern.

The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	343	486	27	1	52	-	5	50	10	-	346	633
Chichester Hbr	-	41	26	-	-	-	-	16	2	-	68	355
Pagham Hbr	313	441	1	-	1	-	-	30	-	-	278	278
Average county total 2011 to 2020	1356	2194	554	8	8		1	7	34	30	424	1289

After low counts at the end of 2020, first winter period numbers remained generally low, with the largest count being 441 at Pagham Hbr on 13 Feb as shown in the table. In Chichester Hbr, 40 at West Chidham on 26 Feb was the highest count and at Rye Hbr it was 96 on 1 Jan. The maximum anywhere during March was 193 on the 13th at Pagham Hbr and the only coastal movements noted were 17 E on the 17th and 20 W on the 28th at Selsey Bill. Small movements were reported in April totalling 18 E past Selsey Bill and 22 E past Splash Point (Seaford). A passage flock of 50 was reported at Medmerry on 22 May and another six there on 8 Jun.

From then until 11 Aug a few were reported at Pagham Hbr (up to three) and at Rye Hbr (up to five). Three juveniles appeared at Pilsey Island (Chichester Hbr) and seven adults at Pagham Hbr, both on 12 Aug, with 30 at the latter site on the 22nd.

The first three-figure flock in autumn was 200 at Itchenor (Chichester Hbr) on 22 Oct. The highest November count was 278 at Pagham Hbr and in December there were 350 at West Chidham on the 4th and 300 at Pagham Hbr on both the 15th and 31st. The largest count during the second winter period in East Sussex was only seven at Rye Hbr on 4 Dec. There were no inland records. [PK Holland]

Ruff

Calidris pugnax



Scarce winter visitor and passage migrant. Red listed species of high conservation concern. Schedule 1 species.

The approximate monthly totals derived from the maximum count at each site, the past decade average and the peak counts at the two main locations are shown in the following table.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	40	37	27	13	6	3	5	24	46	31	20	25
Arun Valley	6	6	9	5	-	-	1	-	5	7	7	7
Rye Bay	34	17	15	7	3	1	2	5	30	15	13	18
Average county total 2011 to 2020	38	51	44	13	5	1	8	19	26	26	27	31

Away from the main sites in the first winter period four were at Combe Valley CP on 23 Feb and five at Lidsey Lodge (Barnham) on 26 Feb with singles seen at Bramber on 11 Feb, Henfield the next day and Pevensey Levels on 14 Feb. Most birds had gone by the end of April but three were still at Rye Hbr on 2 May, one at Pagham Hbr from the 22nd to 24th and in June one was in the Rye Bay area from the 3rd to 7th, and on the Selsey Peninsula on the 8th.

The first returning bird was at Pulborough Brooks on 3 Jul followed by two at Rye Hbr on the 20th. Migration was confirmed with one juvenile at Medmerry on 23 Aug and three juveniles unexpectedly seen at Cissbury the next day. Most sightings were from the favoured locations but two were at Cuckmere Haven on 15 Sep, three at Pagham Hbr on 18 Sep and one at Thorney Deepes on 30 Oct. Thirty at Scotney GP and 20 at Broomhill Level on 19 Sep probably involved some of the same birds.

Peak site counts in the late winter period in the Rye Bay area were 18 at Pett Level on 17 and 25 Dec and ten at Rye Hbr on 30 Dec. Six at Amberley Wild Brooks on 14 Nov included a leucistic individual which was also seen at Pulborough Brooks in both winter periods. [M J Chattaway]

Curlew Sandpiper

Calidris ferruginea 

Passage migrant; scarce in autumn and very scarce in spring; rare in winter. Amber listed species of medium conservation concern.

The number of Curlew Sandpipers can vary greatly from year to year. The estimated minimum monthly totals indicate a slightly below average showing and were as follows:

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
No. of birds	0	5	0	0	7	25	2	0
Average county total 2011 to 2020	1	4	1	4	14	19	5	<1

There were only five spring records, the first being two at Pagham Hbr on 15 May, with one staying to the 18th, closely followed by one at Rye Hbr on 17 May. A further two were at Pilsey Island (Chichester Hbr) on 28 May.

Unusually, there were no July reports this year and typically peak sightings were from mid-August through to late September. During August there were four at Pagham Hbr comprising singles on the 12th, on three dates from the 21st and two on 31st and singles at Rye Hbr on the 6th, Cuckmere Haven on the 27th and Medmerry on the 28th. Most counts in September came from Cuckmere Haven (peak count of six on the 10th) and Pagham Hbr (peak count of six on the 21st) with singles elsewhere at Medmerry on the 2nd, Chichester Hbr on the 4th, 17th and 30th and the Midrips on the 5th, 7th and 12th. In October, there were singles at Cuckmere Haven on the 11th and Rye Hbr on the 17th. [C Davis]

Temminck's Stint

Calidris temminckii 

Very scarce spring and autumn passage migrant. Schedule 1 species.

Following blank years in both 2019 and 2020, there was a welcome upturn in 2021 with three birds recorded. All occurred in August, at Pulborough Brooks on the 13th (CH & J Moore, MS Phelps *et al.*), at Sidlesham Ferry from the 16th to 22nd (A House *et al.*) and photographed at Cuckmere Haven on the 27th (K Wheatley). The county total this century moves on to 54. [P James]

Long-toed Stint

Calidris subminuta 

Very rare vagrant.

2011: One at Weir Wood Res from 15 to 21 Sep (P Johnson, A Lawson, J Warne, D Willis *et al.*) has now been accepted by BBRC. It was considered to be the same bird that was seen at Farlington Marshes, Hampshire, on 8 Sep. The third British record and the first for Sussex, it follows birds in Cornwall in 1970 and Cleveland in 1982. A finder's account is on page 211 of this report. [DK Campbell]

Sanderling

Calidris alba 

Fairly common winter visitor and passage migrant. Rare away from coast. Amber listed species of medium conservation concern.

The peak numbers in the first two months of the year were 185 at Goring Gap on 23 Jan and in February there were 130 at Pilsey Sands (Chichester Hbr) on the 23rd, 200 at Goring Gap on the 24th, and in East Sussex 60 at Rye Hbr on the 2nd was the highest count. The maximum number anywhere during the first winter period was 230 at Goring Gap on 15 Mar.

Spring coastal movements were small; the combined seawatch logs produced a total of 166 E and 175 W between March and May compared with the previous 10-year mean of 341 E and 76 W. The peak was of 53 W at Selsey Bill on 22 May. It is probable that most migrate north over land and

those seen coasting east or west are moving to join a bigger flock prior to departure for the Arctic. Two hundred and sixty at Pilsey Sands on 22 May was notable. Inland, at Arlington Res two were seen on 3 May, one in summer plumage on 20 May and seven on 22 May; one at Pulborough Brooks on 11 Jun rounded off the spring inland records.

After 24 at Pilsey Sands on 9 Jun none were seen on the coast until 17 Jul when five flew west at Selsey Bill, then on 26 Jul 54 were back at Pilsey Sands. Numbers were highest there with 250 on 20 Aug, 200 on 11 Sep and 260 on 8 and 25 Nov. Elsewhere, there were 70 at Rustington on 5 Nov and 90 at Goring Gap on 12 Nov. The only three-figure count in December was 112 at Pilsey Sands on the 4th, East Head held 54 on the 13th and Climping 60 on the 30th. The highest East Sussex count during the second winter period was 40 at Rye Hbr on 25 Nov. [PK Holland]



Sanderling, East Head, 10 January (Alison Playle)

Dunlin

Calidris alpina 

Very common passage migrant and winter visitor; scarce away from estuaries; scarce non-breeder in summer. Red listed species of high conservation concern.

The monthly WeBS counts from the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	1535	4118	1361	158	266	13	408	1598	908	595	4471	10711
Chichester Hbr	-	2219	1174	138	48	3	286	1404	826	220	3712	9220
Pagham Hbr	1207	1370	145	11	104	10	82	144	2	347	754	1305
Average county total 2011 to 2020	12372	9111	5004	295	633	37	369	703	496	2633	7173	9418

Totals were well below the 10-year average in most months, exceptions being July, August, September and December. Notable counts during the first winter period and not included in the WeBS were 1500 at Pilsey Island (Chichester Hbr) on 23 Feb, 500 at Rye Hbr on 24 Feb, 320 at Pett Level on 14 Feb and 287 roosting at Goring Gap on 15 Feb.

Dunlin were present in every month at Pilsey Island, Pagham Hbr and Rye Hbr, and at Medmerry with the exception of June and Cuckmere Haven with the exception of May.

During the spring the highest counts were 1200 at Pilsey Island on 22 May and 300 at Pagham Hbr on 21 May. Few were seen flying east at seawatching sites with just 95 between March and May compared with the 10-year average for the same period of 197. The largest movement was 112 W at Selsey Bill on 22 May.

During the return migration and second winter period the highest counts were again part of the WeBS but additional to these were 500 at Pilsey Island on 12 Aug, 300 in Pagham Hbr on 25 Sep, 3000 at Pilsey Island on 19 Nov, 2500 in Pagham Hbr on 15 Dec and 2000 on Stakes Island (Chichester Hbr) on 16 Dec. The largest count in East Sussex was 300 foraging on the strandline at Rye Hbr on 31 Dec.

Dunlin were regularly recorded away from the coast; most records were from sites within the county's river valleys particularly at Pulborough Brooks where the species was seen on 99 different dates with maxima of 22 on 15 Feb and 16 on both 5 and 8 May. At Arlington Res one or two were seen on 12 dates but eight were present on 4 May and at Weir Wood Res singles were seen on nine dates. [T Seabrook]



Dunlins, West Wittering, 22 October (Bob Brewer)

Purple Sandpiper

Calidris maritima 

Scarce winter visitor and passage migrant; very rare in summer. Red listed species of high conservation concern. Schedule 1 species.

The estimated minimum monthly totals, computed on the basis that the highest single day count at any site was the minimum, were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	25	22	14	27	18	-	-	-	-	3	16	25
Newhaven	17	16	10	20	18	-	-	-	-	-	6	14
Brighton Marina	6	4	3	3	-	-	-	-	-	-	7	6
Shoreham Hbr	2	2	1	2	-	-	-	-	-	3	3	3
Bracklesham Bay	-	-	-	2	-	-	-	-	-	-	-	2
Average county total 2011 to 2020	23	19	13	9	5	0	<1	0	1	3	18	21

There were high counts at Newhaven during the first half of the year with 17 on 1 Jan, 16 on 25 Feb, 20 on 15 Apr (the highest count in any location during the year) and 18 on 11 and 12 May. The highest count elsewhere at this time was six at Brighton Marina on 15 Jan. Two at Bracklesham Bay on 1 Apr were the only ones counted west of Shoreham. The last recorded during the spring were nine at Newhaven on 23 May which is nearly a month later than the ten-year average.

Purple Sandpipers were late to return in the second winter period and the first were three at Shoreham Hbr on 28 Oct where three were recorded also on 9 Nov and 3 Dec. The highest count in the second winter period was again at Newhaven with 14 on 15 Dec. Counts elsewhere were all in single figures and included seven at Brighton Marina on 23 Nov and two at Medmerry on 20 and 21 Dec. [C Davis]

Little Stint

Calidris minuta 

Scarce passage migrant; very scarce in winter.

As in recent years, records mainly came from Medmerry, Pagham Hbr, Rye Hbr and Cuckmere Haven with an overall county estimate of 41 birds seen during the year, a considerable improvement on the 16 noted in 2021. Again, there was no evidence for any over-wintering birds.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of birds	-	-	-	1	-	1	-	17	20	1	2	-
Average county total 2011 to 2020	1	<1	1	1	7	<1	2	7	11	5	1	<1

An early spring individual was seen at Partridge Green (Henfield) on 2 Apr, which flew off east. The only other record during the first six months of the year was one on 8 Jun at Medmerry.

The next records were of returning individuals in August with single birds at Pagham Hbr on 4th, 16th and 17th, at Medmerry from the 20th to the 22nd, at Pagham Hbr from 23rd to 27th, and at both Cuckmere Haven and Rye Hbr on the 26th. Numbers then increased in late month with up to two at Rye Hbr, four at Cuckmere Haven (on the 28th) and five at Medmerry (on the 30th) and a further individual at Pagham Hbr. One was at Pulborough Brooks on the 28th, 30th and 1 Sep. Also in September one was at Cuckmere Haven (the 3rd to 10th), about seven (and maximum of four) at Medmerry, four at the Midrips on the 7th, about three at both Pagham Hbr and Rye Hbr, and a single at Pilsey Island (on the 11th).

The final records for the year were of a single bird seen at Amberley Wild Brooks on 27 Oct and from Rye Hbr in November with one on the 4th and two on the 7th. [ER Paxton]

Pectoral Sandpiper

Calidris melanotos ●

Rare vagrant; mainly in autumn.

There were three records of juveniles in 2021: at Pulborough Brooks from 12 to 22 Sep (G Osborne *et al.*), photographed at Castle Water (Rye Hbr) on 15 Sep (M Linklater) and seen again on the 16th, and one there on 25th, 26th and 28th (DK Campbell *et al.*). Assuming that the Rye records relate to the same individual, the county total moves on to 102, with 28 seen this century. [P James]

Woodcock

Scolopax rusticola ●

Probably fairly common resident and winter visitor. Red listed species of high conservation concern.

Woodcock was recorded in 98 (9.9%) tetrads this year, the highest number since 2013 and compared to a 10-year average of 77. The minimum numbers of birds and sites for the two winter periods are shown below.

	Jan	Feb	Mar		Oct	Nov	Dec
No of birds	35	59	23		1	25	29
No of sites	23	33	20		1	19	16

Most sightings in the first two months were of one to three and mostly from the Weald, but hard weather on the continent brought higher numbers than usual in late January and early February, with counts of eight near Southwick Hill on 23 Jan, six at Pett Level on 12 Feb and four at Pagham Hbr on the 4th. Birds were reported from gardens in Hove and Seaford at this time, with records also from Thorney Island, Eastbourne, Gatwick Airport, Chichester GP and Cuckmere Haven.

Roding was first reported at Worth Forest on 27 Apr, and a total of about 42 territorial birds was recorded. Overall numbers of territories have been fairly stable for the past six years, particularly on the Wealden Heaths where there were 16 this year, but there were only 11 on Ashdown Forest, possibly the lowest ever. Away from these traditional areas there were continuing signs of an upturn in reports from other sites in the Weald, with three at St Leonard's Forest, two each at Pulborough Brooks and Rewell Wood (Arundel), two at Worth and singles at Broadwater Warren, Hellingly and Burwash. There was one confirmed breeding record: an adult with two fledged young were seen at Broadwater Warren.

There were only two records in July, both from Old Lodge LNR (Ashdown Forest), none in August or September, and one in October (at St Leonard's Forest on the 23rd). Records in the last two months were all of one or two except three at Worth on 6 Dec and four near Coombes on the 2nd during a shoot. Most records were from the interior, but there were November records from Beachy Head, Brighton Wild Park, Cissbury and Rye Hbr, and one was trapped at Charleston Reedbed on the 13th. [CJR Barfield]

Jack Snipe

Lymnocyrtus minimus ●

Scarce winter visitor and passage migrant.

Records of a minimum of 55 birds were received from 18 tetrads (1.7%). The minimum monthly totals, computed on the basis that the highest monthly count at a site was the maximum, were as follows:

	Jan	Feb	Mar	Apr	May		Aug	Sep	Oct	Nov	Dec
Sites	7	9	4	6	-		-	-	4	7	5
Birds 2021	14	18	14	15	-		-	-	5	7	5
Average county total 2011 to 2020	18	14	9	2	<1		<1	1	5	10	8

The first winter period and spring saw a minimum of 39 birds recorded at 20 sites, almost all of them established or well-watched coastal and wetland locations. The largest counts came from West Rise Marsh (Eastbourne) with six on 23 Feb, ten on 5 Mar and nine on 29 Apr, and Pilsey Island (Chichester Hbr) with eight on 6 Jan and three on 23 Feb. Most other records were of single birds, although counts of two came from Newhaven Tide Mills (on 11 Feb and 14 Mar), Barcombe Mills (on 12 Apr) and Ashdown Forest (on 6 Feb). The final record for this period came from Combe Valley CP on 30 Apr, more than two weeks later than the 10-year average of 12 Apr.

A minimum of 15 were recorded at 14 sites during the autumn and late winter period. The first returning individual was recorded at Sheepcote Valley (Brighton) on 10 Oct, ten days later than the 10-year average. All but one of the records during this period referred to single birds. The sole exception was a record of two at Rye Hbr on 28 Oct. [MC Daniel]

Common Snipe

Gallinago gallinago

Very scarce breeder and fairly common winter visitor. Amber listed species of medium conservation concern.

The species was recorded from 144 tetrads (14%), substantially up on the previous three years. However, the WeBS county totals in every month apart from July and November were lower than the 10-year average to 2020 though an absence of counts from the R Adur in January and February may have had a significant influence in these months. The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	75	239	126	-	-	-	9	13	12	55	248	162
Chichester Hbr	3	1	13	1	-	-	3	-	1	14	45	17
Pagham Hbr	21	20	2	1	-	-	-	-	-	2	5	1
Arun Valley N of Arundel	29	45	10	8	-	-	6	1	7	11	77	12
Upper Adur Levels	2	-	34	2	nc	nc	nc	nc	-	-	18	6
Lower Adur Valley	nc	nc	28	-	nc	nc	-	nc	-	15	14	15
Lower Ouse Valley	4	70	11	4	-	-	-	-	-	2	2	1
Glynde Level	-	11	4	2	-	-	-	-	-	1	30	16
Eastbourne Lakes	-	19	12	1	-	-	-	-	-	-	18	10
Pevensey Levels	-	51	4	-	-	-	-	-	-	2	1	8
Rye Bay	14	17	6	3	-	-	-	1	1	3	10	28
Average county total 2011 to 2020	236	261	172	25	-	-	2	19	34	112	188	267

The start of the year saw few large counts, the exceptions being 53 on the R Adur on 1 Jan, 25 at Lewes on 12 Jan, 30 at Rye Hbr on 21 Jan, 25 at Rushlake Green on 24 Jan and 40 at West Rise Marsh (Eastbourne) on 1 Feb. However, there was a marked upsurge in numbers from mid-February: 146 were recorded at Southease, 50 at Henfield and 30 at Botolphs (Bramber) on 12 Feb; 63 at Lewes Brooks and 36 at Pevensey Levels on 14 Feb; 25 at Amberley Wild Brooks on 15 Feb; 25 at Arundel WWT on 19 Feb; 46 in Chichester Hbr and 47 at Ashdown Forest on 21 Feb; and 40 at Pulborough Brooks on 27 Feb. The total numbers recorded each day between 9 and 23 Feb are tabulated below, together with the number of sites where they were seen:

February date	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Total birds	50	34	45	282	131	253	74	23	3	28	55	10	158	25	9
Total sites	8	7	9	19	20	26	13	5	2	4	7	5	13	4	2

From March, numbers dropped off, although 53 were recorded on the R Adur on 1 Mar and 50 were at West Rise Marsh on 5 Mar. By early April, most birds had left, with all counts after the 4th being in single figures. Birds were recorded occasionally at three sites during the breeding season, but no drumming was heard and there was no other evidence of breeding.

Birds began returning in late July, with small numbers seen that month at Chichester Hbr, Medmerry, Pulborough Brooks and Rye Hbr. Numbers remained low in August and September, with the only double-figure counts coming from Medmerry, Pagham Hbr, Pulborough Brooks, Amberley Wild Brooks, Pevensey Levels and Barcombe Res.

Numbers continued to be modest throughout the last quarter of the year. The highest counts came from: Chichester Hbr with 45 on 6 Nov and 35 on Dec 17; Elmer with 30 on 14 Nov; Pulborough Brooks with 45 on 10 Oct and 41 on 8 Nov; Amberley Wild Brooks with 31 on 8 Nov; and Glynde Level with 30 on 8 Nov. [MC Daniel]

Grey Phalarope

Phalaropus fulicarius

Very scarce autumn and rare winter visitor; usually occurs after gales.

In a poor year for this species, the sole record was an extraordinary one, a female in breeding plumage, photographed in the entrance to Chichester Hbr on 28 May (A Johnson). It departed high out to sea in the evening. The only other spring record for the county was of one at Rye Hbr on 23 Apr 1973 and at Camber two days later. The county total this century moves on to 74, the vast majority storm-driven birds in autumn and early winter. [P James]

Common Sandpiper

Actitis hypoleucos

Fairly common passage migrant; very scarce in winter. Has bred at least once. Amber listed species of medium conservation concern.

Common Sandpipers were recorded in 78 tetrads (8.1%) compared the 10-year average of 71 (range 61 to 81).

In the first winter period maxima from the main rivers were six along the R Arun from Littlehampton to Arundel on 17 Jan, one on R Adur at Steyning Levels and another at Upper Beeding, both on 3 Jan, one at Shoreham on 25 Jan, one on the R Ouse at Southeast on 21 Feb, four from Rodmell to Lewes on 2 Mar and three on the R Cuckmere on 23 Feb. There was also one at Eastbourne on 9 Feb. Most occupy a territory all winter so a winter population of about 18 seems likely.

On 9 Apr two were on a farm reservoir at Bilsham (Yapton) and on the 11th one at Weir Wood Res and others in the Rye area confirmed migration was happening. Eight were at Rodmell on the 14th, four at Weir Wood Res on the 20th and the same number at Arlington Res on the 29th. There were records nearly every day from mid-April through May. The last of the spring passage record was one at Warnham LNR on 31 May.

The monthly numbers derived as the sum of the highest number at each place that month were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of birds	13	16	8	50	58	4	131	139	95	11	11	7
Average county total 2011 to 2020	9	8	7	39	68	10	123	149	74	20	13	9

There was one in the lower Cuckmere Valley on 15 Jun; the southwards passage appeared to start with one on R Arun on 26 Jun and thereafter there were records on most days with 34 at East Guldeford on 22 Jul being remarkable. Other double-figure counts included 19 on R Arun

on 29 July, ten at Medmerry on 31 Jul, and in August ten at Rye Hbr on the 1st, 11 at Beddingham (Lewes) on the 11th, 20 at Playden (Rye) on the 21st, 17 in the lower Arun Valley on the 25th, and 17 at Weir Wood Res on 20 Sep where three were augmented by a flock of 14 that stayed briefly before moving on.

One at Powdermill Res on 31 Oct was probably the last on passage before the wintering birds seen through November including two in the lower Cuckmere Valley, one at Dell Quay and one at Pagham Hbr. In December there were two each in the R Arun, R Adur and R Ouse tidal stretches and another report was one at Pulborough Brooks on the 1st. [PK Holland]

Green Sandpiper

Tringa ochropus

Scarce spring and autumn passage migrant; more frequent in autumn; scarce in winter.

Amber listed species of medium conservation concern. Schedule 1 species.

The following table showing the sum of the highest count in each month at each broad location gives an indication of the occurrence and how 2021 compared with the previous 10-year average.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	20	15	11	47	2	9	35	66	44	17	14	28
Average county total 2011 to 2020	16	13	13	21	4	18	50	70	34	23	16	15

In the first winter period, there were records from 25 sites, mainly of single birds but with five at Houghton Green (Playden) on 23 Jan (and three there the next day), four at East Guldeford Level on 31 Jan, three at Guestling on 11 Feb and three at the Wadhurst Park Estate on 15 Mar.

There were records from 34 sites between April and early May suggesting a small spring passage. Larger counts in April comprised four at Litlington on the 4th, six at the Wadhurst Park Estate on the 12th, three at Henfield on the 14th and 17th, four at West Rise Marsh (Eastbourne) on the 16th, four at Cuckmere Haven on the 17th and three at Rye Hbr on the 23rd. The last record in May was one at Winchelsea Station on the 10th.

The first returning bird was at Pulborough Brooks on 17 Jun with a flood of records through the rest of June to the end of September. There were records from eight sites in June, 22 in July, 32 in August and 26 in September. Pulborough Brooks was the site with the most frequent records with almost daily reports and peak counts of nine on 23 and 28 Jul and 1 Aug. Highest counts elsewhere were ten at the Wadhurst Park Estate on 23 Aug, eight at Pagham Harbour on the 31 Aug and eight at Rye Hbr on 18 Sep.

In the last winter period, there were records from 28 sites but only at Cuckmere Haven and Pulborough Brooks were birds reported in all three months. The records were mainly of single birds but there were four at the Wadhurst Park Estate on 12 Oct, three at Porthole Fm (Sidlesham) on 3 Nov, three at East Guldeford Level on 9 Dec, four at Pulborough Brooks on the 9 Dec and three at Northiam on the 24 Dec. [KW Smith]

Common Redshank

Tringa totanus

Scarce resident; common winter visitor and autumn passage migrant; fairly common spring migrant. Amber listed species of medium conservation concern.

Redshanks were recorded in 86 (8.7%) tetrads during 2021, compared to the 10-year average of 82 (range 72 to 91). The monthly WeBS counts at the principal locations were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	213	1595	1390	470	32	159	361	909	1108	1314	2072	2080
Chichester Hbr	53	1342	1047	289	21	129	192	784	769	930	1547	1637
Pagham Hbr	62	134	144	20	4	1	80	70	148	206	248	191
Rye Bay	53	72	105	67	4	19	33	39	105	85	135	92
Average county total 2011 to 2020	1804	1856	1393	284	57	79	661	1405	1705	1981	2041	1829

As usual, the highest counts by far were in Chichester Hbr, where numbers exceeded the 1% national threshold of 1200 in February, November and December (though the mere 53 recorded there on the January count is a significant anomaly due to just one sector of the harbour being counted). Apart from this anomaly numbers were generally similar to last year. In addition to the WeBS counts, there were 270 at Pagham Hbr on 2 Jan. Elsewhere the regular flock at Newhaven Tide Mills peaked at 57 on 26 Feb, the highest count on the lower R Adur was 41 on 1 Jan, and at East Guldeford it was 45 on 24 Feb.

Numbers at the main wintering sites declined during late March and April and, as usual, spring migration was not very pronounced, though 20 at Pulborough Brooks on 21 Apr was notable.

Breeding was confirmed in five tetrads, the same as last year, and probable in another seven. There were few details available, but at Pett Level ten pairs raised about ten young (the same as last year) and at least five chicks were seen at Rye Hbr on 6 Jun. At Pulborough Brooks there were ten pairs and at least two broods of chicks seen.

Numbers began building up at the beginning of July, with notable counts of 40 at Pagham Hbr on the 8th and 75 the following day. A few days later there were 80 at Thorney Island on the 12th. Further increases occurred during August and September, as can be seen from the WeBS table. Notable autumn counts away from the main areas included 35 on East Guldeford Level on 22 Jul, 35 on the R Adur on 26 Jul, 23 at Medmerry on 20 Aug, and 60 at East Guldeford Levels on 7 Sep.

Significant counts during the second winter period, in addition to the WeBS counts, included peak counts of 60 on the R Adur on 5 Nov, 60 on East Guldeford Level on 7 Nov, 55 at Newhaven Tide Mills on 6 Nov, and 32 at Cuckmere Haven on 18 Nov. [J Curson]

Wood Sandpiper

Tringa glareola

Very scarce spring and scarce autumn passage migrant; very rare in winter. Amber listed species of medium conservation concern. Schedule 1 species.

This was a better year than 2020 with birds recorded in both spring and autumn passage although the autumn numbers were low. The sums of the maximum monthly counts at each site and the average for the previous decade is shown in the following table.

	Apr	May	Jun	Jul	Aug	Sep	Oct
2021	1	3	3	4	11	4	
Average county total 2011 to 2020	1	4	2	7	15	2	1

In spring there was one at North Wall (Pagham Hbr) from 28 to 30 Apr followed by one at Pulborough Brooks from 2 to 4 May. There were also single birds at Broomhill Level on 2 May and Sidlesham Ferry on 3 May.

The first sign of the return passage was one at Pulborough Brooks on 14 Jun but it was the end of the month before there were any more with one at Weir Wood Res on the 26th, one at Sidlesham Ferry from the 28th to 30th and one at Pulborough Brooks on the 29th.

It was late July before there were any more records with one at Pagham Hbr on the 25th and almost daily records at Medmerry from 22 Jul to 4 Aug with counts of two on the 27th and 30th and three on the 29th and 31st.

The numbers of records peaked in August with single birds at Pett Level on the 1st, two at Rye Hbr. on the 2nd and 13th and singles there on eight days from the 11th to the 27th. At Cuckmere Haven there were single birds on the 3rd, 4th and 7th and at Pulborough Brooks on the 13th, 14th, 17th and 23rd. There were singles at Jury's Gap and North Wall on the 14th, Sidlesham Ferry on the 20th and Thorney Island on the 23rd.

In September there were single birds at Pett Level on the 8th and 12th, Weir Wood Res on the 9th and Medmerry on the 20th. There were no October records. [KW Smith]

Spotted Redshank

Tringa erythropus 

Scarce passage migrant and very scarce winter visitor. Amber listed species of medium conservation concern.

The approximate minimum monthly totals were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of birds	11	10	8	9	2	2	5	10	11	11	10	9
Average county total 2011 to 2020	11	9	9	7	4	3	8	10	14	11	9	9

During the first winter period there were up to four birds in the Fishbourne area, plus one or two elsewhere in Chichester Hbr, up to three in the Pagham Hbr/Sidlesham Ferry areas, and singles at Goring Gap, the lower Cuckmere Valley, Newhaven Tide Mills and Rye Hbr.

As is generally the case, the start of spring migration was complicated by lingering wintering birds, and two at Pagham Hbr throughout April were most likely the two that had wintered there, with one of these remaining until 3 May. Singles there on 15 and 27 May were probably different birds. Another at Pagham Hbr on 1 Jun may have been the same as the one on 27 May and was the last of the spring. Elsewhere the only spring birds were one at Pulborough Brooks from 23 to 27 Apr and two on Pevensey Levels on 27 Apr. This is a typical showing as this species is more common as an autumn migrant.

The first returning bird was at Sidlesham Ferry on 17 Jun, and one was seen there and at Pagham Hbr regularly until 3 Jul so may have been the same individual. There were two at Pagham Hbr on 7 Jul, increasing to three on the 10th and then four were seen from the 19th to 22nd. Birds were seen regularly in the area throughout the autumn period, with peaks of seven on three dates in September and 11 and 12 Oct, falling to five on the 13th and 14th and then three the following day.

Away from the Pagham Hbr/ Sidlesham Ferry area there were few records during this period: two at Medmerry on 4 Aug and one at Rye Hbr on 6 Aug. Singles were then seen at Rye Hbr on several further dates throughout August and it is not clear whether these involved the same bird or whether there was more than one. One at Medmerry on 9 Sep, and singles at Thorney Island on 17 and 24 Sep were the only other autumn records.

Two remained in the Pagham Hbr area from 19 Oct to 14 Nov and a one was seen regularly there to the end of the year. Birds were seen regularly in the Chichester Hbr area during the second winter period with a peak of four in Fishbourne Channel on 11 Dec. Others reported were one at Rye Hbr on 7 Nov and occasionally through to the end of December, plus singles at Small Dole on 13 Nov, Amberley Wild Brooks (and perhaps the same bird at Pulborough Brooks) on a few dates in late November, Broomhill Level on 14 Dec and Scotney GP on 15 Dec. [J Curson]



Spotted Redshank, Pagham Hbr, 17 September (Karen Weston)

Greenshank

Tringa nebularia

Fairly common passage migrant; scarce in winter. Amber listed species of medium conservation concern. Schedule 1 species.

The monthly WeBS counts at the principal location were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	-	19	26	16	1	8	14	50	66	62	31	19
Chichester Hbr	-	19	25	13	-	3	6	42	45	50	28	18
Average county total 2011 to 2020	24	23	21	15	5	1	39	88	77	55	29	23

As is normally the case, the highest numbers seen during both winter periods were at Thorney Deeps. In the first winter period the highest number there was 12 on 1 Jan and 14 Mar; this number is consistent with previous years. Elsewhere in Chichester Hbr there were maxima of six at both Fishbourne Channel and East Head, five at Dell Quay, plus the usual ones and twos elsewhere in the harbour. At other locations during this period there were up to three at Pagham Hbr, plus singles at Medmerry and the Adur Saltings.

Spring migration starts early and the situation is often confused by lingering winter birds. It seems likely that the 11 recorded at Thorney Deeps on 9 Apr were birds that had wintered there. Four at Medmerry on 7 Apr were perhaps the first spring migrants. Migration then continued through April and May, with birds seen at various coastal and inland locations. This mostly involved ones and twos, but notably higher counts included 12 at Fishbourne Channel on 20 Apr, six at Rye Hbr on the 24th, 13 at Pulborough Brooks on the 27th, and a remarkable 26 at Thorney Deeps on the 29th.

As is typical, numbers dropped off during May but there were 13 in Chichester Hbr on the 3rd, five at Pulborough Brooks on the 1st and three at Medmerry on the 20th.

As usual, June was the month with the fewest records but there were records on 13 days, involving a minimum of 16 (including three at Thorney Deeps on the 23rd). Records were spread throughout the month making it difficult to tell when spring migration finished and autumn migration began.

Greenshanks were recorded on most days in July, mostly in low numbers (one to four) but there were ten at Pagham Hbr on the 31st. Migration continued through August and September at coastal and inland locations, mostly involving single figures, but there were 11 at Pagham Hbr on 3 Aug, and as usual there were often significantly higher numbers at Thorney Deeps, with a high autumn count there of 39 on 11 Sep and again on the 20th.

Migration continued into early October, with ones and twos at many of the expected locations, and 36 at Thorney Deeps on the 9th. After this numbers at Thorney Deeps fell away, with 18 on 6 Nov, 17 on 25 Nov, and then the usual wintering flock, with 12 to 15 during December. There was a typical scattering of wintering birds elsewhere in Chichester Hbr, including four in the Fishbourne Channel, while away from Chichester Hbr there were ones and twos at the regular wintering sites of Medmerry, Pagham Hbr and the lower R Adur. [J Curson]



Greenshank, Pulborough Brooks, 8 September (Juliet Moore)

Collared Pratincole

Glareola pratincola



Very rare vagrant.

Two were seen flying south-east over Castle Water (Rye Hbr) on 5 Jun (PF Bonham). The next day, two appeared at Dungeness RSPB, Kent. The record, the fifth for Sussex and the first since one at Pagham Hbr in May 2001, has been accepted by BBRC. [DK Campbell]

Kittiwake

Rissa tridactyla 

Common but very localised breeding species; fairly common or common winter visitor and passage migrant. Rare away from coast. Red listed species of high conservation concern.

Kittiwakes were recorded at Selsey Bill in all months. It should be noted that Kittiwake is not countable at Splash Point (Seaford) once breeding pairs have settled on the cliffs, as birds are ever present and constantly flying back and forth. The totals from the other principal seawatching sites are shown below:

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Selsey Bill	E	299	23	17	54	62	1	-	2	2	5	26	1103
	W	881	33	1	-	166	6	10	32	5	330	99	904
Worthing & Goring	E	63	435	-	4	5	-	-	-	6	1	1	22
	W	352	251	7	1	6	-	-	-	6	66	1	172
Telscombe Cliffs	E	-	14	44	21	222	8	3	-	-	-	-	-
	W	-	3	-	-	4	-	1	-	-	-	25	12
Birling Gap	E	-	-	52	17	-	nc	nc	nc	nc	-	nc	nc
	W	-	-	-	-	-	nc	nc	nc	nc	-	nc	nc
Fairlight	E	183	79	1	3	4	nc	-	-	-	-	35	27
	W	784	15	24	3	2	nc	-	-	-	168	26	7

During the first winter period, there were ten movements of over 100 birds. Four of these movements were at Selsey Bill, four at Worthing and two at Fairlight. The largest movements were 230 W in 2 hr at Fairlight on 11 Jan, 270 W at Worthing on 28 Jan, 289 W in 2 hr at Selsey Bill on 29 Jan and 241 W and 353 E at Worthing in 3 hr on 7 Feb. Later in the year observers at Selsey Bill recorded five movements of over 100 birds and all except one were in early December, the largest being 221 W in 3 hr on 5 Dec, 201 E in 3 hr on 7 Dec and 685 E in 3¼ hr on 12 Dec. Elsewhere the only large movement was 167 W in 3 hr at Worthing on 6 Dec. Away from the traditional nesting area, the largest offshore feeding group was 200 at Pett on 18 Oct.

Seaford Head cliffs remains the only nesting site; the highest number of Kittiwakes recorded there was 750 on 14 May. The annual nesting survey carried out in June recorded 580 AON, which is the highest occupancy rate since 2017. The productivity figure was 0.82, marginally above the minimum level of 0.8 required for the colony to be self-sustaining; this is encouraging as it is the third consecutive year that productivity has been above or close to the minimum requirement (per DH Howey).

An adult at Weir Wood Res on 6 Aug was the only inland record. [C Davis]

Sabine's Gull

Xema sabini 

Rare mainly autumn vagrant.

A juvenile was photographed at Sovereign Hbr (Eastbourne) on 31 Oct (J Kellett) but could not be found the following day. The county total moves on to at least 74, of which 20 have been this century. [P James]

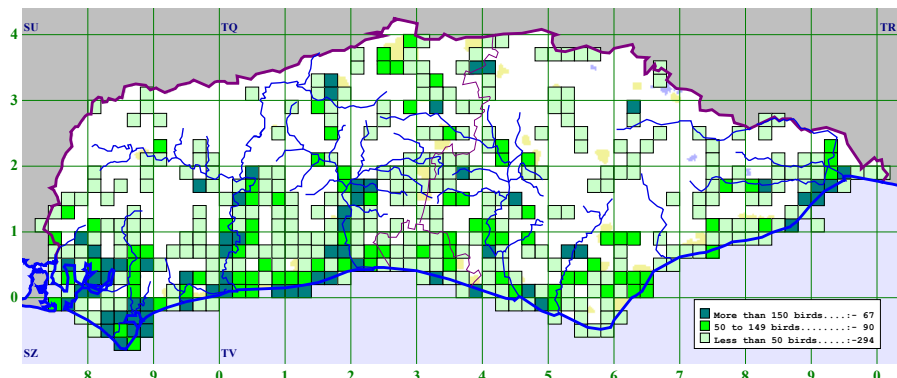
Black-headed Gull

Chroicocephalus ridibundus



Common breeding species and very common to abundant passage migrant and winter visitor. Amber listed species of medium conservation concern.

This species was recorded from 451 (46%) tetrads and, as the map plotting the maximum count in each tetrad shows, is most frequently seen in large numbers in coastal and riverine locations.



However, the highest counts were of roosting birds at inland reservoirs; in the first quarter 3500 were counted at Arlington Res on three dates in early January and 1200 or more seen on six other dates. An accurate count of 3131 was made at Ardingly Res on 2 Jan and the highest count at Barcombe Res was 1500 on 19 Feb. There were no roost surveys from Bewl Water or Weir Wood Res in this period. Elsewhere the largest counts were 1150 at Newhaven Tide Mills on 1 Feb, 1000 at Goring Gap on 2 Mar and 1000 in the lower Adur Valley on both 12 and 13 Mar.

Between February and May seawatchers recorded 1590 E, well above the previous ten-year average of 1055 E, with the peak movement of 413 E at Splash Point (Seaford) on 22 Mar.

A count at Rye Hbr on 20 May found a total of about 70 nesting pairs at three locations. Hatching success appeared to be good as did the survival rate of chicks and 44 fledglings were counted on 25 Jul. At Pett Level there were 2775 pairs in two colonies where it was estimated that more than 3000 chicks fledged. In West Sussex breeding was confirmed at four sites. At Pagham Hbr 1028 fledged from 921 pairs and on North Stakes Island (Chichester Hbr) one nest was found containing one egg in early June which was presumed a relay after flooding during late May. At Arundel WWT a total of 92 occupied nests were counted during the survey on 13 May but only 20 in the repeat count on 8 Jun. On 13 Jun 41 adults and 55 chicks were counted on the corrugated roof of a commercial building near Quarry Lake (Chichester); this small colony was only discovered in 2020.

By mid July flocks were recorded away from the breeding colonies with the most notable observations being 300 at Medmerry on 12 Jul, 500 at East Chidham (Chichester Hbr) on the 17th and 600 at Arlington Res on the 24th. Two thousand were at this last location on 6 Aug, a similar number at Climping on the 17th and 2226 counted in Pagham Hbr on the 22nd. During the autumn there were several large gatherings seen offshore at Selsey Bill with the highest counts being 3000 on 23 Sep, 2000 on the 24th and a similar number on 26 Oct. Perhaps associated with these observations 3400 flew west at Worthing on 12 Oct and 300 W at Selsey Bill on 7 Oct.

All the other counts greater than 1000 at the end of the year were from reservoirs with the nocturnal roost at Bewl Water containing 42,100 on 29 Dec and 52,470 on the 31st. At Arlington Res the peak count was 15,000 on 18 Dec, at Ardingly Res there were 3000 on 28 Dec and at Barcombe Res 1200 on the 12th. [JA Newnham]

Little Gull

Hydrocoloeus minutus

Fairly common passage migrant; most numerous in spring. Very scarce non-breeder in summer and scarce in winter. Schedule 1 species.

Approximately 950 birds were seen, the highest number since c.1430 were recorded in 2007 and well above the average of 616 for the years 2011-20. The following table of monthly totals at both coastal and inland sites, and the number of days recorded, shows that nearly 99% of these were recorded passing coastal locations during spring.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of days recorded	-	1	9	15	10	5	1	3	3	2	1	2
Coastal	-	1	37	878	18	2	1	-	2	2	1	3
Inland	-	-	1	3	4	1	-	1	?	-	-	-
Total	-	1	38	881	22	3	1	1	3	2	1	3
Average county total 2011 to 2020	13	8	53	414	35	3	2	5	5	10	67	2

One offshore at Pagham Hbr on 12 Feb was the sole record in the first two months of the year. One flying east at Splash Point (Seaford) on 9 Mar was the first of the spring with March peaks at this location of 12 E on the 22nd and 15 E on the 30th. The table shows most were seen in April and, as usual, observers at coastal sites in East Sussex saw more than those in West Sussex. Four exceptional days of passage past Brighton Marina in late April were 265 E on the 24th, 185 E on the 25th, 55 E on the 27th and 180 E on the 28th. The peak April movements recorded at Splash Point were 94 E on the 19th and 83 E on the 24th, this last date was also the highest count of 35 E, out of month total of 83, at Selsey Bill.

From June until the end of the year no more than 12 were sporadically seen at coastal sites. Inland one or two were seen at Weir Wood Res on 30 Mar, 28 Apr, 8 May, 21 May, 28 Jun and 20 to 21 Aug; at Arlington Res on 19 Apr and at Bewl Water on 17 Sep. [JA Newnham]

Mediterranean Gull

Ichthyaeetus melanocephalus

Fairly common winter visitor and passage migrant; scarce breeder. Amber listed species of medium conservation concern. Schedule 1 species.

Like the past two years Mediterranean Gulls were recorded in 150 (15%) tetrads during 2021. Most records and the highest numbers were from coastal sites and some inland locations mainly in West Sussex. The table below shows the highest count in each month for sites in West and East Sussex, clearly demonstrating the now established pattern of occurrence with the highest counts in the spring and post breeding period and few in East Sussex from June onwards.

West Sussex				East Sussex		
	Number	Site	Day	Number	Site	Day
Jan	60	Elmer Rocks (LWS)	21 st	4	Arlington Res	3 rd
Feb	122	Goring Gap	24 th	210	Pett Level	25 th
Mar	300	Pagham Hbr	30 th	645	Pett Level	31 st
Apr	500	Thorney Island	29 th	585	Pett Level	1 st
May	200	Thorney Island	2 nd	300	Pett Level	7 th
Jun	130	Older Hill (Redford)	23 rd	8	Jury's Gap	13 th
Jul	300	Pagham Hbr	28 th	20	Pett Level	19 th
Aug	1091	East Chidham	20 th	2	Weir Wood Res	2 nd
Sep	828	West Wittering	11 th	8	Beachy Head	28 th
Oct	200	Medmerry	16 th	9	Fairlight	18 th
Nov	42	Climping	30 th	5	Fairlight	2 nd
Dec	59	Climping	13 th	2	Fairlight	20 th

There were several other high counts from Pett Level between February and May; elsewhere notable records not shown in the table included 300 at Itchenor (Chichester Hbr) on 12 Apr, 200 feeding in fields with Black-headed Gulls at Finchdean on 2 Mar, 120 at Goodwood on 21 Mar and 100 flying south over Singleton Forest on 4 Mar. Later in the year there were 683 at West Wittering on 20 Aug, 400 at Pagham Hbr on 23 Aug and 500 at Medmerry on 5 Sep.

From the initial breeding surveys at Rye Hbr breeding was not suspected, but on 25 Jul three fledglings were seen. At Pett Level 130 pairs raised about 200 chicks but several were predated by Marsh Harriers. At Pagham Hbr, 32 young fledged from 20 pairs.

Coastal movements typically showed a predominantly eastward moment in spring and a westward passage in autumn. The following table of month totals, derived from the sum of the highest daily count flying in each direction, shows the scale of these movements.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
East	25	61	209	690	104	5	33	46	97	99	7	10
West	31	32	15	77	10	8	73	59	117	436	65	49

Most eastward passage occurred in April with high counts of 86 E on the 15th and 147 E on the 17th at Selsey Bill and 131 E at Widewater (Lancing) on the 18th. Westbound high counts were 40 at Worthing on 11 Jul and during October at Selsey Bill with 87 on the 2nd, 65 on the 30th and 46 on the 28th. This species has been the subject of colour ringing studies in several European countries; many birds have been sighted in Sussex and some are described in the Ringing Report on page 212. [JA Newnham]

Common Gull

Larus canus 

Very common, sometimes abundant winter visitor and very common passage migrant; scarce in summer; bred until 1963 and then in 2006 and in some years since then. Amber listed species of medium conservation concern.

Common Gulls were recorded in 249 (25%) tetrads predominantly from coastal, river valley and downland locations. There were no nocturnal roost counts at Bewl Water during the first quarter; the largest counts were from Arlington Res where between 2500 and 3000 gathered on four dates between 1 and 8 Jan. Elsewhere 1640 were at Rye Hbr on 5 Feb and 1000 at Goring Gap on 2 Mar whilst 100 or more were seen at about 40 other locations during this period.

Coastal movements were fairly small as shown in the following table. Peak movements were 380 W at Fairlight on 5 Feb and 337 E at Splash Point (Seaford) on 26 Mar.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
East	54	445	588	173	54	0	0	1	4	11	3	7
West	221	488	53	8	3	0	1	10	20	123	75	30

Breeding was only recorded at Rye Hbr and for the first time at this site a pair successfully raised a chick to fledging.

As usual between the middle of May and August few Common Gulls were encountered with exceptions of 45 at Slindon on 28 May, 35 at Princes Park (Eastbourne) on 3 Jun, 12 near Small Dole on 29 Jun and 21 at Swanbourne Lake (Arundel) on 26 Jul. Numbers then gradually increased with 106 at Rye Hbr and 100 at Scotney GP on 10 Oct being the first three-figure counts of the autumn. Thereafter there were gatherings greater than this magnitude at 14 other locations. At Arlington Res seven counts between 11 Nov and 19 Dec ranged between 1500 and 7000 (26 Nov) and the nocturnal roost at Bewl Water held 4040 on 29 Dec and at least 21,500 on the 31st. [JA Newnham]

Great Black-backed Gull

Larus marinus 

Common winter visitor and passage migrant; scarce in summer; mostly non-breeders; but very scarce breeder since 2000. Amber listed species of medium conservation concern.

Great Black-backed Gulls were recorded from 169 (17%) tetrads mainly close to the coast, estuaries or river valleys. The highest counts in each month at five coastal sites are shown in the following table. Like most recent years the largest flocks were seen in the Cuckmere Valley where the highest counts, in chronological order, were 893 on 20 Jan (Arlington Res), 650 on 20 Feb, and in December 700 on the 8th, 1000 on the 20th, 750 on the 21st, 700 on the 22nd and 1030 on the 26th.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Selsey Peninsula	106	225	36	40	40	35	15	62	95	49	60	120
Lower Adur Valley	25	40	21	13	21	4	25	50	85	51	73	69
Seaford/ Cuckmere Haven	400	650	30	30	5	1	1	1	62	320	400	1030
Arlington Res	893	134	20	8	7	1	3	8	12	6	25	173
Rye Bay	146	108	65	58	40	20	57	136	250	72	150	205

Elsewhere the highest counts were of 50 at Newhaven Tide Mills on 1 Feb, Glynegap (Bexhill) on 8 Nov and Newhaven on 14 Nov; and 65 at Nyetimber (Bognor) on 27 Dec.

Like last year about ten pairs were reported breeding with singles at Lancing, Shoreham, Brighton Marina, Newhaven, Hastings, Scotney GP and at four sites in and around Rye Hbr. [JA Newnham]

Glaucous Gull

Larus hyperboreus 

Very scarce winter visitor and passage migrant. Amber listed species of medium conservation concern.

Following a blank year in 2020, three were recorded: a first winter at Seaford Head and then on the beach at Cuckmere Haven on 2 Apr (P Evans), a first winter flew east with other large gulls behind a fishing boat off Widewater (Lancing) on 3 Apr (RJ Fairbank) and another first winter at Climping Gap on 6 Dec (C Brookes). [P James]

Iceland Gull

Larus glaucoides 

Very scarce winter visitor and passage migrant. Amber listed species of medium conservation concern.

There were three records for the early part of the year: a first winter that roosted at Arlington Res on 1 and 2 Jan (IT Barnard, JJ Everitt, J MacCallum-Stewart, AD Whitcomb), a second winter at Shoreham Hbr on 18 Jan (M Palmer) and a first winter that flew east at Portobello (Telscombe Cliffs) on 9 Feb (DH Howey). In the latter part of the year there was a 2nd winter at Sovereign Hbr (Eastbourne) on 29 Nov (BD & P James). The county total this century moves on to c.51. [P James]

Herring Gull

Larus argentatus argenteus 

Very common resident; status uncertain as passage migrant and winter visitor. Red listed species of high conservation concern. Section 41.

As usual this was the most recorded gull with records from 578 (59%) tetrads. The following table shows the WeBS county month totals and the highest counts in each month at regularly counted locations where in excess of 1000 had been recorded on at least one occasion.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WeBS county total	1398	2361	1826	2215	1774	1132	1422	4073	1569	4783	3436	1524
Selsey Peninsula	70	310	86	487	443	142	80	400	2000	500	328	250
Goring/Worthing	1000	300	500	500	450	40	304	500	4700	800	200	500
Lower Adur Valley	1400	550	600	400	260	90	600	400	450	660	510	400
Barcombe Res	1100	300	650	14	140	4	38	15	91	4	3	300
Arlington Res	800	100	250	300	220	60	250	1500	2000	2500	3000	2500
Rye Bay	85	200	200	200	300	32	150	200	2000	500	400	275

Of the 19 counts over 1000, ten were at Arlington Res where peaks were 3000 on 26 Nov and 2500 on 24 Oct and 18 Dec. An exceptional movement of 4700 W, comprising mainly juveniles, was seen during a 2½hr seawatch at Goring on 12 Sep. During the SWBS Herring Gulls were recorded in 54% of squares surveyed in January and February and 57% of those surveyed at the end of the year whilst in the BBS 71% of surveyed squares held this species.

Confirmed or probable breeding was recorded in 47 tetrads, mostly from coastal sites but inland at Storrington, Burgess Hill, Warnham LNR, Lewes and Polegate. The fieldwork for the national seabird count was completed with a further 21 1-km squares surveyed. A total of 169 AON was found with a square in Brighton holding 45 AON and a further 63 apparently occupied territories. Full details of this survey can be found on pages 246-252 of this report.

Those showing the characteristics of the nominate race *L. a. argentatus* were one at Goring Gap on 14 Feb and, in December, eight at Cuckmere Haven on the 7th and 15 on the 21st, one at Shoreham Hbr on the 8th and 15th, one near Yapton on the 22nd and up to two on the R Adur at Shoreham between the 24th and 27th. [JA Newnham]



Herring Gull, Sussex, 26 June (Karen Weston)

Caspian Gull

Larus cachinnans

Scarce but regular winter visitor. Amber listed species of medium conservation concern.

As is typical with this attractive gull, Caspian Gulls were seen in greater numbers during the second winter period and chiefly in East Sussex.

In January, first winters were at the R Adur (Shoreham) on the 4th and 5th (RJ Fairbank) and Goring Gap on the 16th (N Bond, GRF James, GD Messenbird), while a third winter roosted at Barcombe Res on the 17th. A near-adult at Cuckmere Haven on the 25th was the final record this month. There were only two (both first winters) in February: at Cuckmere Haven on the 17th and 24th, and at Selsey Bill on the 25th (A House).

The next records were in November, with a third winter at West Rise Marsh (Eastbourne) on the 18th, an adult roosting at Arlington Res on the 26th and one at Newhaven on the 28th. Just over half of the year's records were in December, the majority seen roosting amongst the Great Black-backed Gull flocks at Cuckmere Haven, with a maximum of six from the 22nd until the 24th. Two were at Arlington Res on the 22nd. In December, Caspian Gulls were also seen at Goring Gap (DK Campbell) and R Adur on the 24th (RJ Fairbank, D Buckingham), Newhaven Hbr on the 22nd and West Rise Marsh on the 21st.

A minimum of 36 birds were recorded during the year. [MR Eade]

Yellow-legged Gull

Larus michahellis

Scarce but localised visitor; mainly in late summer and autumn. Amber listed species of medium conservation concern.

Yellow-legged Gulls were recorded in 30 (3.0%) tetrads, similar to 2020, mostly in small numbers and from locations close to the coast. An adult at Warnham LNR on 8 Jan, a first winter there on 31 Dec and one at Ifield MP on 29 Sep were the only records far inland.

The following table shows that most are encountered during the post-breeding season or in gull roosts in the winter months, though the late summer gatherings on the Selsey Peninsula are no longer present.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Approx. county total	6	3	3	3	-	3	9	11	7	7	5	12
Average county total 2011-2020	4	2	1	1	2	19	16	18	5	6	9	3
Days recorded	5	4	3	4	-	3	10	11	7	6	4	12

Most records involved up to three individuals but there were five in the large gull roost at Cuckmere Haven on 7 and 21 Dec. [JA Newnham]

Lesser Black-backed Gull

Larus fuscus

Fairly common passage migrant and winter visitor; scarce (mainly immatures) in summer and scarce breeder. Amber listed species of medium conservation concern.

The species was recorded in 213 (22%) tetrads during the year; a similar number to 2020 and more than the 10-year average of 169 (18%) tetrads. Most records were from the coast or river valleys and the following table, showing the peak counts in each month from six well watched areas and the WeBS monthly county totals, reveals this species is not frequently encountered in large numbers.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WeBS county total	11	23	39	46	30	13	26	37	3	10	6	22
Selsey Peninsula & Chichester Hbr	7	6	14	60	12	6	6	16	8	8	1	10
Arun Valley	1	3	5	5	3	3	6	5	15	2	8	2
Lower Adur Valley	3	12	26	5	4	5	5	5	10	2	1	22
Seaford/ Cuckmere Haven	100	40	20	25	25	2	1	10	15	12	3	200
Arlington Res	8	16	20	17	6	5	5	8	1	2	17	65
Rye Bay	1	20	23	6	14	7	6	5	11	6	8	10

Two hundred were at Cuckmere Haven on 21 and 22 Dec and 100 were counted there on 29 Jan, 15 and 23 Dec. The highest counts at sites not included in the above table were 80 near Maynard's Green on 29 Mar, 22 at West Rise Marsh (Eastbourne) on 27 Feb and 20 flew over Ashdown Forest on 17 Jan. There were no significant coastal movements recorded.

Confirmed or probable breeding was recorded in just 13 tetrads with confirmed breeding noted at Chichester (2), Worthing, Shoreham Hbr, Hove, Arlington Res, Pett Level and Rye Hbr. Just two apparently occupied territories were found in the 21 1-km squares visited for the national seabird survey; see pages 246-252 for the full results. [JA Newnham]

Sandwich Tern

Thalasseus sandvicensis



Fairly common although localised breeding summer visitor and common passage migrant; very scarce winter visitor. Amber listed species of medium conservation concern.

The monthly totals at the principal seawatching sites were as follows:

		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Selsey Bill	E	126	1983	11	2	-	199	68	7
	W	11	19	-	22	164	624	101	52
Worthing & Goring	E	10	303	92	nc	33	28	9	11
	W	14	41	50	nc	71	80	19	39
Telscombe Cliffs	E	72	518	38	2	3	4	5	-
	W	9	36	-	2	3	2	7	-
Splash Point (Seaford)	E	315	875	277	nc	-	nc	-	nc
	W	-	-	-	nc	-	nc	-	nc
Fairlight	E	2	31	27	-	-	-	-	-
	W	-	-	-	-	-	-	15	2

Selsey Bill was the most reliable place to see wintering birds, with regular sightings of up to eight, with nine on 7 Feb. At nearby Pagham Hbr there were five together on 28 Jan and 25 Feb but just two at Chichester Hbr on 1 Jan. Elsewhere, six were at Goring Gap on 27 Jan and singles reported from Splash Point (Seaford) and Worthing. By March numbers at key breeding colonies increased noticeably with 190 in Rye Hbr on the 29th and 100 in Pagham Hbr the following day.

Twenty-one east at Selsey Bill and 3 E past Splash Point on 20 Feb were probably the first migrants, with 12 at Rye Hbr on 8 Mar the first to settle at potential breeding sites. There was a modest, but steady eastward passage on most days in March, peaking at 119 at Splash Point on the 26th. At Selsey Bill passage peaked during 17 to 26 Apr, with 1343 E and a daily maximum of 267 on the 23rd. The highest daily maximum at Splash Point was 173 E on the 28th, dropping rapidly to 68 E by 2 May. There were just two inland records during the spring; one at Bewl Water on 13 Apr and three at Weir Wood Res on 22 Apr.

The contrast in breeding fortunes between Rye Hbr and Pagham Hbr could not have been more stark, with no evidence of breeding at all at the former site, despite the promising build-up of birds in the spring, whilst the relatively new colony in Pagham Hbr continued to flourish, with 243 pairs fledging an impressive 252 chicks, benefitting from an apparent local abundance of Sand-eels.

During the summer, away from the Pagham/Selsey area, numbers remained low, rising to 61 in Rye Hbr on 18 Jul but not more than 20 elsewhere.

In late summer Sandwich Tern numbers had declined in West Sussex with just two three-figure counts of 400 at Pagham Hbr on 11 Aug and 100 feeding off Selsey Bill on the 25th. At Rye Hbr numbers remained high, fluctuating between 500 on 14 Aug to 300 on the 25 Sep with 130 still present on the late date of 20 Oct, then to six on the 25 Nov. Other late counts elsewhere included: 35 on the beach at Fairlight and 36 offshore from Worthing on 14 Oct, and 50 at Pett Level the following day, then just one or two birds recorded regularly until the 29 Nov.

Throughout November and December up to six were in Chichester Hbr, whilst in the Pagham Hbr/Selsey Bill area up to four were seen almost daily with unexpected peaks in December of 32 on the 9th, the highest ever winter count, with 17 on the 21st and 30 the following day. [A House]

Little Tern

Sternula albifrons

Scarce breeding summer visitor and fairly common passage migrant. Amber listed species of medium conservation concern. Schedule 1 species.

The spring monthly eastbound totals at the principal seawatching sites were as follow:

	Apr	May	Jun
Selsey Bill	197	33	4
Worthing & Goring	11	-	nc
Telscombe Cliffs	-	2	-
Splash Point (Seaford)	11	27	nc

The first of the spring were seen to fly east out of Pagham Hbr on the early date of 30 Mar, a new county arrival record, but there were no further reports until 13 Apr, when 7 E at Selsey Bill, with small numbers seen daily in that area thereafter. The first at Rye Hbr was also reported on the 13th, though none were recorded elsewhere until the 23rd, with 1 E past Worthing and 2 E past Splash Point (Seaford). The 28th, however, was the biggest day of the spring with 83 E past Selsey Bill yet only five logged at Splash Point.

A report of 50 in Pagham Hbr on 30 Apr was an indication that the breeding colony there was building, with peaks of 26 in Chichester Hbr on 11 May and eight at Rye Hbr on the 15th, but there was little further evidence of spring passage from seawatching sites.

It was another very good breeding season for the species. Forty six pairs in Pagham Hbr reared 25 fledged young, the best total since the 1980s, and at Rye Hbr between six and ten pairs raised seven fledged young; their first success since 2017. No successful breeding was reported from Chichester Hbr despite courtship being noted.

Numbers in Pagham Hbr peaked at 68 on 13 Jul, dwindling to ten on the 26th, the last double-digit count as the breeding colony swiftly departed, though a couple of late pairs with fledged young stayed until a last sighting of a juvenile there on 16 Aug. As is usual, there was a small post-breeding build-up on Pilsey Island (Chichester Hbr), peaking at 38 on 3 Aug, with nine still there on the 20th and the last three seen on the 23rd. At Rye Hbr numbers dropped similarly, with 24 on 1 Aug reducing to two by the 12th. There were just two September records, of two in Chichester Hbr on the 11th and the last three of the year in Rye Hbr on the 15th. [A House]

Roseate Tern

Sterna dougallii 

Very scarce passage migrant and non-breeding summer visitor. Red listed species of high conservation concern. Schedule 1 species. Section 41.

It proved to be another good year for the species in Pagham Hbr, after one was found among the roosting terns on 5 May (A House), with presumably the same bird seen on a further eight dates during the month (BF Forbes, D Mason, I Lang *et al.*), and it, or another, off the adjacent Selsey Bill on the 14th (J Atkinson, BGR Ives, I Pitts).

Two birds were seen together in Pagham Hbr on 4 Jun (E Stubbs), and three were seen on the following day, thereafter one or two were recorded on 11 days throughout June and July, with three recorded again on 24 Jun and 29 Jul. In August, one was seen on the 1st, two on the 5th, with one on the following days until the last of the year on the 10th.

There was just a single report from East Sussex with two being seen and photographed in Newhaven Hbr on 29 Jun (per Hon. Recorder). [A House]

Common Tern

Sterna hirundo 

Fairly common breeding summer visitor and common passage migrant. Amber listed species of medium conservation concern.

The first Common Terns of the year were sighted on 26 Mar, two days later than the 10-year average arrival date, with 1 E at Selsey Bill and Worthing and 2 E past Splash Point (Seaford), with two more east past Selsey Bill on the 29th and 30th, when two also passed Splash Point. Small numbers continued moving east along the coast through most of April, with one at Weir Wood Res on the 10th being the first inland record.

The first sizable counts of 223 E at Selsey Bill and 500 E at Brighton Marina did not occur until the 24th but these numbers were completely eclipsed on the 28th when a spectacular movement (see other tern species above) of an estimated 17,000 passed Brighton Marina, consistent with the 23,190 E at Dungeness that day, with 1500 seen moving along the beach at Pett Level. Another 545 went east past Brighton Marina on the following day but, unsurprisingly, passage was fairly light thereafter peaking at 90 E at Splash Point on 8 May. The previous county record movement of specifically identified Common Terns was 2943 E at Splash Point on 13 May 2001.

There were plenty of inland spring records, mostly of ones and twos, with 16 at Chichester GP on 8 May the biggest count.

There was an improvement in breeding success this season, compared to 2020, with chicks fledged at most of the key sites, summarised thus: on the roof top nesting site near Chichester GP a maximum of 16 young were seen on 10 Jul; at Chichester Hbr up to 30 birds were visiting the newly installed nesting rafts, but with no confirmation of breeding; at Pagham Hbr six pairs fledged seven young; at Warnham LNR five juveniles were seen on 22 Jun; at Weir Wood Res the first eight pairs failed, but a later attempt produced at least one fledged young; at Pett Level approximately 80 young fledged from 160 pairs, and at Rye Hbr a minimum of 23 young fledged from 80 pairs.

As usual, numbers ebbed away steadily through August, with 100 at Rye Hbr on the 9th and at Pagham Hbr on the 11th being the last three-digit counts. At Selsey Bill 214 W between the 16th and 21st, peaking at 93 on the 21st, was indicative of birds departing. There was a scattering of September records, with 18 in Chichester Hbr on the 11th by far the largest count. Singles were reported in both October and, surprisingly, November with 1 W at Selsey Bill on the 1 Oct and in Pagham Hbr on the 7th, 10th and 13 Nov with presumably the same individual at Selsey Bill the following day; this the last of the year some 25 days later than the 10-year average last record date. [A House]

Arctic Tern

Sterna paradisaea 

Uncertain, but probably a fairly common spring and autumn passage migrant. Amber listed species of medium conservation concern.

The first two records of the year, on 19 Apr, were 13 days later than the ten-year average, with 1 E past Splash Point (Seaford) and one at Weir Wood Res, with two there on the following two days and one on the 24th.

From 22 Apr on there was a modest, but steady eastward passage along the coast, with peaks of just 24 past Widewater (Lancing) and 20 past Worthing on the 24th and 18 past Selsey Bill the next day, but then there was an astonishing passage of 2500 E on the 28th, only picked up at Brighton Marina in the county, but mirrored at Dungeness, further east. The largest number previously recorded in the county was 580 E at Splash Point on 6 May 2018. This was followed by just a few more seawatching reports in May, up until the last at Selsey Bill on the 11th, though there were three late records from other sites, with another inland bird at Arlington Res on the 21st, one in Pagham Hbr the following day and, lastly, one in Rye Hbr on the 25th.

The first returning bird was at Weir Wood Res on 8 Aug, with just a further six reports of single birds in August and September, with the exception of 20 in Rye Hbr on 20 Aug, followed by a late bird off Worthing on 17 Oct. A first-winter bird was around Pagham Hbr on 16 and 17 Nov, fully 30 days beyond the ten-year average last date. [A House]

Common/Arctic Tern

Sterna hirundo/paradisaea

Due to the difficulties in separating Common and Arctic Terns passing seawatching sites, primarily brevity of view and distance, many birds are recorded as ‘Commic’ Terns.

Below is a summary of the combined totals of Common, Arctic and ‘Commic’ Terns from the principal seawatching sites for the year:

		Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
Selsey Bill	E	5	951	301	19	-	104	3	-
	W	-	1	-	1	18	239	3	1
Worthing & Goring	E	132	4	-	nc	-	-	-	-
	W	-	-	-	nc	-	9	8	-
Brighton Marina	E	-	23,705	3800	-	-	-	-	-
	W	-	-	-	-	-	-	-	-
Telscombe Cliffs	E	7	90	78	-	-	-	-	-
	W	-		2		2	-	-	-
Splash Point (Seaford)	E	7	5051	6445	nc	-	-	-	nc
	W	-	-	-	nc	-	-	-	nc
Fairlight	E	-	70	-	-	-	-	-	-
	W	-	-	-	-	-	-	-	-

It was looking like a poor spring for ‘Commic’ Terns, with very modest numbers moving through during April, and no big days until on the 28th, one of the most exceptional movements recorded occurred, almost exclusively in East Sussex and into neighbouring Kent. A combined total of 19,500 went east at Brighton Marina and 4220 at Splash Point (Seaford). The count at Brighton Marina on 28 Apr is, by a huge margin, a new county record, 5306 at Birling Gap on 8 May 1981 being the previous largest day count. To put the extreme easterly bias of the event in perspective, 28,000 birds were counted at Dungeness, but just 148 went east past Selsey Bill in over eight hours of watching. Remarkably, after such a big movement, the next three days produced further totals of 7455 E past

Brighton Marina and 6193 E past Splash Point, though, again there were very few in West Sussex. After that, numbers tailed off very quickly, with 60 E at Splash Point on the 13th being the last count of note for the spring. The table shows there was little westward movement recorded with 61 at Selsey Bill on 16 Aug the highest count. [A House]

Black Tern

Chlidonias niger 

Scarce passage migrant. Schedule 1 species.

Approximate monthly totals within the county were as follows:

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
2021	-	77	20	-	1	3	5	-
Average county total 2011 to 2020	<1	15	55	1	1	12	8	1

Records from seawatching sites were as follows:

	Apr	May	Sep	Total	Peak Movement
Selsey Bill	-	6 E	-	6	4 E on 9 May
Worthing & Goring	4 E		1 W	5	4 E on 23 Apr
Brighton Marina	73 E		-	73	55 E on 28 Apr
Splash Point (Seaford)	15 E	11 E	-	26	15 E on 28 Apr

The first four birds of the year were seen going east past Worthing on the fairly late date of 24 Apr, with eight and then ten past Brighton Marina on the following two days. This was followed by a remarkable day of movement for all the regular tern species on the 28th, with 55 E past Brighton Marina and 15 E passing Splash Point (Seaford), the best daily total since 2016.

After that numbers in May were back to more typically modest fare with Splash Point recording just eight on the 2nd, two on the 3rd and one on the 8th, and at Selsey Bill just one offshore on the 2nd, 4 E on the 9th and 2 E on the 11th, with the sole inland record and the last of the spring, coming from Weir Wood Res on the 22nd.

One in off the sea at Rye Hbr on 18 Jul was the first returning bird, followed by one at Weir Wood Res on 6 Aug, one at Arlington Res on the 27th and one at Selsey Bill on the 30th. The only bird to stick around was widely appreciated at Medmerrey between 6 and 11 Sep, when it was seen flying out to sea and, presumably, accounting for the sighting in Chichester Hbr on the same day. The last report of the year was of one heading west past Worthing on 28 Sep. [A House]

Great Skua

Stercorarius skua 

Fairly common spring and scarce autumn passage migrant; very scarce but increasing in winter. Amber listed species of medium conservation concern.

The monthly totals have been estimated using the same method as for Red-throated Diver (see page 93) but birds lingering offshore and not considered to be part of that day's movement have been added (though birds lingering over successive days have been included only once). This method gave an annual total of 142 which is identical to the 2020 figure but below the 10-year average of 219. The estimated monthly totals were:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly total	1	1	3	72	38	-	1	3	3	18	1	1
No. of days	1	1	3	22	12	-	1	2	3	14	1	1
Peak no.	1	1	1	12	10	-	1	2	1	3	1	1
Peak day	4 th	15 th	11 th	26 th	3 rd	-	27 th	1 st	27 th	27 th	13 th	27 th

In the first winter period there were five records of apparently wintering birds with 1 W at Fairlight on 4 Jan, 1 E at Portobello (Telscombe Cliffs) on 15 Feb and singles off Selsey Bill on three dates in March. Easterly spring passage occurred in the period 8 Apr to 21 May. In April, the first record was of one off Selsey Bill on the 8th with movement recorded on nearly all subsequent days that month though the only double-figure count was of 12 at Selsey Bill on the 26th. In May, birds were recorded on 12 dates, but as in April there was only one double-figure count when ten flew past Splash Point (Seaford) on the 3rd. The last spring records were 1 E at Selsey Bill on 21 May and one off Pagham Hbr on the 23rd.

There were no records in June and there was 1 W at Worthing on 27 Jul. There were three offshore in both August and September. In the second winter period, birds were recorded on 16 dates in October but with only singles on 14 of those dates. The last two records of the year were at Selsey Bill, with one offshore on 13 Nov and 1 E on 27 Dec. [DH Howey]

Pomarine Skua

Stercorarius pomarinus

Passage migrant in variable numbers in spring; usually scarce; very scarce in autumn; rare in winter.

Using the same method as for Great Skua, the estimated annual total for 2021 was 61 (38 in April and 23 in May). This was lower than the 2020 total of 86, below the 10-year average of 116 and the fourth consecutive year in which the total did not reach three figures. Easterly spring passage was confined to the period 21 Apr to 11 May with birds recorded on only 14 days. The first record was of three at Splash Point (Seaford) on 21 Apr. The only significant movement of the year was on 24 Apr with 13 at Selsey Bill, 25 at Brighton Marina, six at Telscombe Cliffs and 11 at Splash Point with two or three also recorded at Worthing, Beachy Head and Fairlight. There were no double-figure counts during May with a maximum of eight at Beachy Head on the 3rd. The last spring record was four past Splash Point on 11 May. There were no records during the rest of the year. [DH Howey]

Arctic Skua

Stercorarius parasiticus

Fairly common spring and scarce autumn passage migrant; very scarce in summer and rare in winter. Red listed species of high conservation concern.

Using the same method of estimation as that for Great Skua, the Arctic Skua total for the year was 215 which was above the 2020 figure of 179 but below the 10-year average of 299. The minimum monthly totals were:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of birds	1	-	8	67	82	3	2	7	16	26	3	-
No. of days	1	-	2	20	21	2	2	6	10	18	2	-
Peak no.	1	-	5	8	17	2	1	2	6	4	2	-
Peak day	23 rd	-	26 th	24 th	1 st & 3 rd	17 th	28 th	1 st	28 th	17 th	28 th	-

The first record of the year involved a wintering bird moving west off Selsey Bill on 23 Jan. Spring passage commenced at the end of March and continued throughout April and May. Although recorded on 43 days during this period, there were only two double-figure counts with 17 E off Splash Point (Seaford) on both 1 and 3 May. The numbers recorded flying east at three seawatching sites during April and May were:

	Selsey Bill	Worthing & Goring	Splash Point
April	51	3	33
May	34	18	54

Daily totals were low between June and November with a peak of 6 W at Fairlight on 28 Sep. The last of the year were 2 W at Worthing on 28 Nov. In May and again in September and October birds were regularly recorded lingering offshore attracted by feeding gulls and terns. This behaviour was recorded off Selsey Bill and particularly in Rye Bay, where three or four individuals were noted on several dates. [DH Howey]

Long-tailed Skua

Stercorarius longicaudus 

Rare vagrant.

There were two records in 2021: an adult flew east past Splash Point (Seaford) on 10 May (D Barber) and a juvenile flew east off Widewater (Lancing) on 29 Oct (RJ Fairbank). The county total since 2000 moves on to 22. Records have been in Apr (1), May (11), Jun (1), Aug (2), Sep (4), Oct (2) and Dec (1). [P James]

Common Guillemot

Uria aalge 

Fairly common winter visitor and passage migrant; formerly bred. Amber listed species of medium conservation concern.

The monthly and annual totals have been calculated using the same method as for Red-throated Diver (see page 93). The annual total of 620 was a considerable increase over the 2020 figure of 206 but still well below the 10-year average of 976. The table below shows the monthly figures in which the peak number refers solely to movements while the monthly total includes both birds involved in movements and those feeding offshore.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly total *	171	123	7	34	53	3	-	1	3	16	73	136
Peak no.	94	50	4	17	14	-	-	-	1	2	25	10
Peak day	29 th	8 th	26 th	23 rd	8 th	-	-	-	18 th	27 th	30 th	12 th

* adjusted to compensate for duplication

There were only six double-figure movements during the year with the two largest occurring in January and February. Offshore feeding parties boosted the monthly figures in four months with 34 off Lancing on 30 Jan, 56 at Newhaven on 1 Feb, 20 off Pett on 6 Nov and 77 off Climping on 6 Dec. [DH Howey]

Razorbill

Alca torda 

Common winter visitor and fairly common passage migrant; formerly bred. Amber listed species of medium conservation concern.

Adopting the same method of calculation as that used for Red-throated Diver (see page 93) gives an annual total of 6693 which was not only above the 2020 figure of 3793 but also considerably higher than the 10-year average of 3889. The table below shows the monthly totals, which include birds feeding offshore but the peak number relates solely to birds moving along the coast. It is interesting to note that the January total actually exceeded that for the whole of 2020.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly total *	3889	1417	118	28	72	1	4	-	1	197	372	594
Peak no.	1200	301	23	5	21	1	2	-	1	62	71	168
Peak day	27 th	6 th	10 th	28 th	8 th	3 rd	6 th	-	30 th	28 th	12 th	6 th

* adjusted to compensate for duplication

In January the majority of records came from West Sussex with 2996 W including 1033 W on 24th and 1200 W three days later, recorded at Selsey Bill. The largest feeding party recorded was 650 off Lancing on 3 Jan. Numbers were considerably lower during the remainder of the first winter period with only three three-figure counts in February and none in March. Many of the movements recorded at this time were considered to be feeding movements as shown by 301 E off Worthing on 7 Feb followed by 300 W the next day. Numbers in spring were typically low with 21 W off Selsey Bill on 8 May being the only double-figure count.

One or two birds lingered in June and July but there were then no records in August and just one in September. In the second winter period numbers increased slowly with the main movements again being in West Sussex and largely involving westerly movements. At Selsey Bill 191 W in October, 265 W in November and 339 W in December were recorded. Elsewhere during this period there were feeding parties of 20 at Newhaven on 23 Oct, 56 in Rye Bay on 20 Nov and 70 off Lancing on 26 Dec. [DH Howey]

Puffin

Fratercula arctica 

Very scarce visitor; most frequently recorded in spring. Red listed species of high conservation concern.

There were four records of single birds during the year, the same as in 2020. The first record of the year was of 1 E at Portobello (Telscombe Cliffs) on 9 Feb (DH Howey) followed by 1 E off Goring Gap two days later (D Mason, DI Smith). At Selsey Bill 1 E on 24 Apr was seen by many observers (J Atkinson, AP Bowley *et al.*). The final record was of 1 W past Portobello with other auk species on 30 Nov. (DH Howey). These records bring the county total this century to 35. [DH Howey]

Auk species

The approximate numbers of Common Guillemots, Razorbills and those auks not identified to species are shown in the table below. The figures in the table have not been adjusted to compensate for duplication so should not be taken as an accurate assessment but simply as a means of comparison with previous years. The total of all auks recorded in 2021 was 143,038, which is the highest figure this century, exceeding the previous record of 96,403 in 2001 and markedly higher than the 2011 to 2020 10-year average of 29,197.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Monthly total	90,526	36,745	1247	525	606	14	4	1	25	2863	5917	4565
Peak no.	12,500	9791	247	63	120	2	2	1	16	1000	1800	417
Peak day	26 th	8 th	9 th	24 th	3 rd	26 th	4 th	30 th	30 th	18 th	30 th	5 th

During the first two months of the year there were some major movements and also some large offshore gatherings but in the majority of cases the birds were too distant to be identified to species. In January there were seventeen counts in excess of one thousand including 9775 W at Fairlight on the 11th, 8144 W off Selsey Bill on the 15th, 12,500 W off Eastbourne on the 26th and 5034 E off Worthing on the 31st. Numbers were lower in February but still included a further five counts of over one thousand including 3320 off Lancing on the 4th, 9791 W and 1512 E past Worthing on the 8th and 3040 E at Telscombe Cliffs on the same day.

Numbers were slow to pick up in the second winter period with a peak of 1000 off Pett on 18 Oct and 1800 E at Selsey Bill on 30 Nov. The totals recorded at four sites are shown below:-

	Jan-Feb			Mar-May			Jun-Jul			Aug-Oct			Nov-Dec		
	E	o/s	W	E	o/s	W	E	o/s	W	E	o/s	W	E	o/s	W
Selsey Bill	14,001	114	10,961	517	10	614	12	-	4	52	61	486	3729	58	3168
Worthing & Goring	12,343	89	17,164	38	3	81	-	-	-	2	7	51	122	111	1835
Telscombe Cliffs	2679	134	10,454	42	30	-	-	-	-	2	-	11	46	26	10
Fairlight	2711	280	18,005	397	23	2609	-	-	-	-	-	1146	512	5	176

The difficulties of specific identification of distant auks in flight and those feeding offshore in choppy sea conditions are well known. Where specific identification was possible the number of Razorbills exceeded those of Common Guillemots by a ratio of 11:1. [DH Howey]

Red-throated Diver

Gavia stellata 

Fairly common winter visitor and passage migrant. Schedule 1 species.

In line with previous years the estimated monthly totals shown in the table below have been calculated by taking the highest daily count of birds recorded moving either east or west along the coast during the month plus the highest offshore count in the month together with any inland records. Using this method the estimated total for 2021 was 4445 which is the highest annual total since 2002 and a welcome increase over the disappointing 2020 total of 1560.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
697	1536	433	147	22	-	-	-	5	20	97	1488	4445

In January the only three-figure count involved 116 W at Selsey Bill on the 27th. Offshore movement was recorded every day in February including 124 E at Worthing on the 8th, 133 E past Fairlight on the 16th and a count of 150 on the sea off Cooden on the 1st. Numbers dropped in March but were boosted by 148 E past Splash Point (Seaford) on the 26th. Spring passage was recorded throughout April and continued until 11 May but with no significant movements.

The first returning bird was 1 E at Selsey Bill on 4 Sep. Numbers were slow to build up in the second winter period despite records every day in November. Numbers increased dramatically during December particularly in East Sussex with 384 W past Fairlight on the 16th (a new county record) and 325 E off Pett the following day.

The estimated totals for coastal passage at five seawatching sites, moving both eastwards and westwards but excluding birds seen on the water offshore, are shown below.

	Jan	Feb	Mar	Apr	May	Sep	Oct	Nov	Dec
Monthly total *	697	1536	433	147	22	5	20	97	1488
Selsey Bill	449	669	108	109	6	2	11	69	640
Worthing & Goring	327	1077	42	25	2	2	4	29	230
Telscombe Cliffs	189	441	24	7	-	-	-	3	16
Splash Point	-	64	223	33	20	-	nc-	-	nc
Fairlight	369	651	165	48	-	-	-	20	775

* adjusted for duplication in direction and between sites

There were no records of birds away from the sea or tidal harbours during the year. [DH Howey]

Black-throated Diver

Gavia arctica

Scarce winter visitor and passage migrant. Amber listed species of medium conservation concern. Schedule 1 species.

The estimated monthly totals shown in the table below have been calculated using the same method as for Red-throated Diver:

Jan	Feb	Mar	Apr	May		Oct	Nov	Dec	Total
7	7	4	27	12		2	3	10	72

Although the estimated annual total of 72 was above the 2020 figure of 49 it was also the seventh consecutive year in which the total was below 100.

In the first winter period offshore movements were recorded on 11 dates with no more than two on any one day. The popular bird that was first seen at Arlington Res on 4 Dec 2020 remained until 30 Jan. Spring passage occurred between mid-April and the third week of May with offshore movement recorded on 22 dates and a maximum of five moving east on any one day. The last spring record was on 21 May which accords with the 10-year average.

The first record of returning birds was of two off Goring on 15 Oct which is a similar date to both 2019 and 2020. In the second winter period a well watched bird arrived in Sovereign Hbr (Eastbourne) on 28 Nov and remained until 9 Dec. Apart from that bird the species was recorded on only 12 dates in the second winter period with a maximum of two on just one day. [DH Howey]



Great Northern and Black-throated Divers, Sovereign Harbour, 1 December (David Gardiner)

Great Northern Diver

Gavia immer 

Scarce winter visitor and passage migrant. Amber listed species of medium conservation concern. Schedule 1 species.

The waters off Selsey Bill continue to be an important wintering area for this species. Great Northern Divers from the core site tend to feed over a wide area and in the past sightings of birds between Chichester Hbr to the west and Elmer Rocks (Middleton-on-Sea) to the east have been assumed to relate to the Selsey winter population. In 2021 there were increasing numbers of birds reported feeding offshore between Ferring and Lancing and fewer west of Selsey which may indicate a shift in feeding area of this species.

	Jan	Feb	Mar	Apr	May	Jun		Sep	Oct	Nov	Dec
Monthly total	8	11	13	8	9	1		2	3	8	11
Maximum in Selsey area	3	6	10	4	3	1		1	2	5	7

During the first winter period three were offshore at Selsey Bill in early January rising to six on 1 Feb and ten on 20 Mar. Away from the core area single birds were recorded from Goring, Worthing, Lancing, Seaford, Bexhill and Fairlight. There was little evidence of spring passage with singles moving east past Telscombe Cliffs on 14 Apr, Splash Point (Seaford) on the 26th and Brighton Marina on the 30th. In May the only passage movements recorded were of 1 W off Worthing on the 4th, 1 W past Elmer Rocks on the 10th and at Selsey Bill 5 W on the 22nd was the highest count. The final record was of one offshore at Selsey Bill on 2 Jun just, two days later than the 10-year average.

The first returning bird was 1 W at Selsey Bill on 28 Sep, some four days later than in 2020. Offshore at Selsey Bill the maximum counts in each month were two on 29 Oct, six on 24 Nov and seven on 1 Dec. There were two long-staying birds present in East Sussex with one arriving in Sovereign Hbr (Eastbourne) on 30 Nov and the other at Rye Hbr which arrived on 11 Dec; both remained until the end of the year. Other records in the second winter period included singles at Worthing on four dates, singles at Pagham Hbr on 13 and 24 Nov, Fairlight on 27 Nov and Widewater (Lancing) on 26 Dec. [DH Howey]

Diver species

The difficulties of the specific identification of distant divers in flight are well known to seawatchers. Despite this, in 2021 over 90% of all divers seen were identified to species.

The numbers of all divers recorded at five seawatching locations during the periods January to May and October to December are shown in the table below.

	Diver sp		R-t Diver		B-t Diver		Total	
	J-M	O-D	J-M	O-D	J-M	O-D	J-M	O-D
Selsey Bill	107	28	1274	730	5	5	1386	763
Worthing & Goring	49	5	1523	287	16	7	1588	299
Telscombe Cliffs	9	-	728	16	11	1	748	17
Splash Point (Seaford)	17	nc	365	nc	28	nc	410	nc
Fairlight	1	-	1311	811	-	-	1312	811

The numbers recorded for each site have been prepared by adding the monthly figures for birds flying both east and west plus those recorded as 'offshore'. No allowance has been made for duplication at or between sites so no attempt should be made to total the columns. [DH Howey]

Leach's Petrel***Hydrobates leucorhous*** ●***Rare vagrant. Red listed species of high conservation concern. Schedule 1 species.***

Singles flew W past Cow Gap (Beachy Head) at 12:28 hr and 13:33 hr on 2 Oct (CF Ball, MR Eade). The county total since 2000 moves on 69. Records have been in Feb (2), May (1), Oct (8), Nov (46) and Dec (12) though only five have been recorded since 2010. [P James]



Fulmar, Newhaven, 24 December (Bob Eade)

Fulmar***Fulmarus glacialis*** ●***Scarce breeding species and passage migrant. Amber listed species of medium conservation concern.***

Fulmars were already present at their breeding cliffs at the start of the year. Numbers at suitable sites increased during January and February with three at Ovingdean, 15 at Rottingdean, six at Telscombe Cliffs, six at Peacehaven, ten at Newhaven, 15 at Seaford Head, 13 at Beachy Head and 20 at Cliff End (Pett). During the first winter period the only notable movement was 65 E at Splash Point (Seaford) on 26 Mar although this probably included some locally breeding birds. In this period only small numbers were recorded away from nesting areas with a maximum daily count of only 11 at Selsey Bill.

In the period from 22 Apr to 7 May easterly movements of between 20 and 40 were recorded every day at Splash Point culminating with a peak of 160 E on 8 May. These movements were not recorded elsewhere in Sussex suggesting a localised occurrence resulting from a large but temporary food source which attracted both breeding and non-breeding birds from a wide area. The last instance of a large localised movement of Fulmars was of 670 E off Brighton on 12 May 2005.

Numbers remained low throughout the remainder of the year; at Selsey Bill a total of just 40 was recorded in the months of June to September. The last birds left the breeding ledges at Portobello (Telscombe Cliffs) on 8 Sep. Six off Lancing on 29 Oct may have been either late departing or early returning birds. At Cliff End (Pett) six were already back at their breeding site on 16 Nov. [DH Howey]

Cory's Shearwater

Calonectris borealis 

Rare vagrant.

One flew east past Selsey Bill at about two miles range at 16:38 hr on 2 May (J Atkinson, S Hill, A House, C Northwood). The county total moves on to 25 of which five have been this century: Apr 2000 (Birling Gap), Sep 2002 (Birling Gap), Apr 2012 (Selsey Bill), May 2016 (Selsey Bill) and Jun 2018 (Selsey Bill). [P James]

Sooty Shearwater

Ardenna grisea 

Very scarce autumn visitor.

A total of eight were recorded in 2021 comprising 1 W (photographed) past Selsey Bill at 08:20 hr on 24 Jan (J Atkinson, A House), one lingering close inshore off Goring Gap on 12 Aug (CE Hope), 1 W off Cow Gap (Beachy Head) on 28 Sep (L Pitcher, A Redman), 3 W off Cow Gap on 2 Oct (CF Ball, MR Eade), 1 W off Selsey Bill on 2 Oct (S Hill, BGR Ives, I Pitts, S Russell) and 1 W off Fairlight Cliffs on 18 Oct (A Parker). The January bird was the first county record for the month while the August bird may have been the same individual that lingered close inshore at Dungeness (Kent) on 7 and 8 Aug. [P James]

Manx Shearwater

Puffinus puffinus 

Fairly common spring to autumn passage migrant. Amber listed species of medium conservation concern.

Using the same method of estimation as for Red-throated Diver (see page 93), the annual Manx Shearwater total was 159, considerably lower than the 2020 figure of 247 and also below the 10-year average of 230. Selsey Bill was the main site for this species during the year and the totals for that site together with the county totals are shown in the table below.

	Mar		Apr		May		Jun		Jul		Aug		Sep		Oct	
County totals*	1		24		89		0		22		3		14		9	
	E	W	E	W	E	W	E	W	E	W	E	W	E	W	E	W
Selsey Bill	1	-	3	3	10	55	-	-	2	22	-	1	8	7	-	2

* Adjusted to compensate for duplication

The first record of the year was of 1 E at Selsey Bill on 28 Mar. In April the only double-figure count was of 12 E at Brighton Marina on the 24th. May saw the year's only significant movement with 43 W at Fairlight and 32 W at Selsey Bill, both on the 24th. There were two other double-figure counts in May involving 13 W at Selsey Bill on the 3rd and 11 W at Beachy Head the following day.

In contrast to 2020 there were no records in June. In July all records came from Selsey Bill including 17 W on the 30th. Numbers remained disappointingly low during the following three months with the last record being 3 W off Goring Gap on 29 Oct. [DH Howey]

Balearic Shearwater

Puffinus mauretanicus 

Very scarce spring to autumn visitor. Red listed species of high conservation concern. Considered critically endangered by IUCN. Section 41.

A major westerly movement on 28 Sep contributed to a minimum of 200 birds being recorded during the year which is the highest annual total since 2001 when some 250 were recorded. The first record of the year was of 1 E at Splash Point (Seaford) on 1 May (MR Eade, RJ Fairbank, ER Paxton). There were records on seven dates in September starting with 11 E at Selsey Bill on the 4th (J Atkinson, D Bloch, P Hunter, BGR Ives *et al.*). These were followed by 2 W at Goring on 5 Sep (DI Smith, D Mason), 3 E off Selsey Bill on 8 Sep (PD Matson), 3 W also at Selsey Bill on 11 Sep (A House, PD Matson), and a further 6 W past Selsey Bill on 26 Sep (S Hill, BGR Ives, I Pitts, SA Russell *et al.*).

A major westerly movement occurred on 28 Sep with 150 recorded at Beachy Head, a new county one-day record (L Pitcher, A Redman). On the same day there were 26 W at Fairlight (A Parker) and 14 W off Lancing (RJ Fairbank). The only other record in September was of 1 E off Goring on the 30th (DI Smith). In October there were 9 W at Selsey Bill on the 2nd (S Hill, BGR Ives, I Pitts, SA Russell) and 13 W at Beachy Head on the same day (CF Ball, MR Eade). The final record was of 1 E at Lancing on 31 Oct (RJ Fairbank) which brought an exceptional year to a close. [DH Howey]

Black Stork

Ciconia nigra 

Rare vagrant.

One was seen and photographed flying over Castle Water at Rye Hbr on 15 Jul (C Bentley, J Martin). The record has been accepted by BBRC. This is the 20th county record and the 13th this century. Just three of the previous birds arrived in July. [DK Campbell]

White Stork

Ciconia ciconia 

Rare vagrant mainly in the spring. Most records from 2017 onwards likely to relate to deliberate releases, their offspring or escapes.

All records probably related to released individuals and their young. On the Knepp Estate a record seven pairs nested, six of which successfully raised 15 young.

Wandering storks again gave much pleasure to birdwatchers across Sussex, with the largest flock seen away from the release sites being 12 at Shoreham on 14 Aug.

White Storks from the project, including young birds, are ringed with a blue Darvic ring starting with a GB on the left tibia and a BTO metal ring on the right tarsus. Sightings can be reported at <https://www.whitestorkproject.org/report-a-sighting>. [M Mallalieu]

Gannet

Morus bassanus 

Common passage migrant and non-breeding summer visitor; fairly common to common in winter. Amber listed species of medium conservation concern.

The movements recorded during the year at five seawatching sites were as shown in the table below:

	Jan-Feb		Mar-May		Jun-Jul		Aug-Oct		Nov-Dec	
	E	W	E	W	E	W	E	W	E	W
Selsey Bill	1167	2661	4205	2128	467	385	1228	3410	704	1452
Worthing & Goring	1430	925	715	239	8	24	138	2055	26	448
Telscombe Cliffs	1191	2000	1141	124	59	1	401	1512	182	396
Splash Point (Seaford)	13	0	2376	13	nc	nc	nc	nc	nc	nc
Fairlight	487	1857	1766	148	18	18	51	1080	337	275

At the start of the year there were many records of parties feeding offshore with peak counts at various locations including 200 off Worthing on 1 Jan, 350 off Lancing on 2 Jan, 260 off Shoreham the next day, 300 off Telscombe Cliffs on 5 Jan, 350 off Hastings on 9 Jan and a peak of 500 at Selsey Bill on 18 Jan. During the first winter period there were 20 movements involving more than 100 birds, 13 in January, five in February and two in March. In January the movements were mainly of birds heading west but this changed in February with easterly movements dominating. The peak movements at this time were 678 W at Telscombe Cliffs and 611 W at Fairlight on 11 Jan, 536 W past Selsey Bill on 24 Jan, 523 E at Telscombe Cliffs on 8 Feb, 458 E off Worthing on 11 Feb and 350 E past Splash Point (Seaford) on 26 Mar.

In April and May movements were mainly easterly as birds returned to their northern colonies. Observers at Selsey Bill recorded monthly totals of 2661 E and 1421 E in April and May respectively with totals of 1304 E at Fairlight in April and 1385 E at Splash Point in May which included 800 E on 8 May. Numbers were predictably low during the period June to August with birds moving back and forth off the coast in similar numbers. Westerly dispersal and migration was recorded during September, October and November with totals in this period of 3430 W at Selsey Bill, 2359 W at Worthing, 1719 W at Telscombe Cliffs and 1289 W at Fairlight. In this period the largest daily count was of 1330 W off Lancing on 2 Oct. There were several sizeable offshore gatherings in November with 690 in Rye Bay on the 21st, 300 off Goring on the 22nd and 700 off Camber on the 26th. Numbers in December were low with some already starting to move east including 147 E past Selsey Bill on Christmas Day. [DH Howey]

Cormorant

Phalacrocorax carbo



Fairly common but localised resident and common winter visitor.

Cormorants were recorded in 327 tetrads (33%) compared with 331 in 2020. The records are mainly from sites along the coast, but also from river valleys and water bodies including fishing lakes further inland. The monthly WeBS counts at the principal sites were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	317	589	366	460	426	298	657	855	847	808	1151	757
Chichester Hbr	1	30	19	18	12	10	7	13	27	59	76	52
Pagham Hbr	47	44	42	31	34	51	38	42	4	42	57	41
Rye Bay	27	233	71	150	233	74	495	574	547	413	605	241
Average county total 2011 to 2020	866	645	579	462	551	517	584	738	819	867	690	566

Note that COVID-19 restrictions prevented most volunteers from carrying out the WeBS counts in January 2021.

High counts in addition to the WeBS in the first winter period were: 1466 in the roost at Rye Hbr on 29 Jan, 1333 on 4 Feb and 430 on the 21st; 88 in flight at Hove on 10 Jan, 80 in a feeding flock close inshore at Southwick Canal on the 11th, 150 at Bexhill on 23 Jan and 104 off Selsey Bill (27 o/s, 77 E) on 31 Jan, 90 offshore at Lancing on 7 Feb and 170 o/s at Pett Level on 8 Feb.

Breeding was confirmed from four sites with 386 AON, a recovery from the lows of 190 AON in 2020 and 257 in 2019. There were 284 nests at Rye Hbr (158 in 2020), 59 at New Lake (Chichester GP), 26 at Medmerry (up from 18 in 2020) and 17 at Weir Wood Res. A pair were seen on the Knepp Estate on 6 Apr.

High, non-WeBS counts during the last half of the year included 200 at Hastings CP on 13 Aug, 100 at Pagham Hbr on 6 and 25 Sep, 500 at Rye Hbr on 12 Oct and 1000 at Rye Hbr roosting at dawn on the shoreline on 10 Nov, the highest count during this period. [L Smith]

Shag

Gulosus aristotelis

Scarce winter visitor and passage migrant; rare away from the coast. Red listed species of high conservation concern.

Shags were reported from 21 coastal tetrads and one inland, with offshore records in all months except June. Most records were from Selsey Bill; the aggregate monthly totals of birds are shown in the following table together with the totals from the three previous years. Most daily records were of one or two birds with a maximum of 13 (5 W and 8 E) on 20 Mar and eight (6 E, 2 o/s on 11 Dec).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2018	14	5	2	10	13	-	-	-	1	8	4	15
2019	4	7	7	9	2	-	-	18	148	516	74	36
2020	11	6	4	2	-	-	2	12	3	6	3	7
2021	12	9	40	30	3	-	1	1	9	15	3	25

Records elsewhere in the first winter period were from Splash Point (Seaford) (4 o/s on 2 Jan, 1 E on 22 and 26 Mar and 3 o/s on 30 Mar); Birling Gap (2 E on 31 Mar) and singles reported from Medmerry on 16 Mar, Worthing on 4 Feb and 16 Mar, Shoreham Hbr on 18 and 19 Jan, Southwick Power Station (Shoreham) on 6 Jan, Hove on 9 Jan, Brighton Marina on 15 Jan and Sovereign Hbr (Eastbourne) on 31 Jan, 17 and 18 Feb.

In April and May one or two were seen regularly from Splash Point with three on 3 May. Two, thought to be a pair, were displaying and feeding together on 24 Apr and 11 May. Elsewhere Shags were seen from Rottingdean (one on 25 Apr), Beachy Head (one on 3 to 5 May) and Cuckmere Haven (two on 23 Apr).

In summer, one was inland at Arlington Res on 8 Aug. Singles were seen from Worthing on 7 and 11 Aug and Splash Point on the 28th.

In autumn, singles were seen from Goring Gap on 11 Oct, Worthing on 25 Oct, Telscombe Cliffs on 23 Oct, Splash Point on 1 Sep and 24 Oct and Rye Hbr on 26 Sep.

In the second winter period single birds were reported from Pagham Hbr on 27 Nov, Climping on 13 Nov and 13 Dec, Worthing on 30 Nov and 22 and 30 Dec, Widewater (Lancing) on 24 Dec, Brighton Marina on 4 Dec, Sovereign Hbr on 30 Nov and with two off Jury's Gap 16 Dec. [L Smith]

Glossy Ibis

Plegadis falcinellus

Very scarce but increasing visitor.

The bird first recorded at Marsh Fm (Sidlesham) on 24 Nov 2020 remained until 4 Jan. One at the North Wall (Pagham Hbr) from 10 Jul to 13 Jul (AP Bowley *et al.*) was presumably the same bird that flew east past Selsey Bill on the 12th (A Wilkes). One was at Combe Valley CP from 30 Oct to 2 Nov (R Heasman, J Penfold). Three over Medmerry on 7 Nov (N Bond *et al.*) were relocated later that day at Redlands (West Wittering) where they remained until the 9th (S Dale, A House *et al.*). Assuming that five 'new' birds were recorded in 2021, the county total moves on to approximately 86, of which 44 have been this century. [P James]



Glossy Ibis, West Wittering, 10 November (Dorian Mason)

Spoonbill

Platalea leucorodia ●

Very scarce visitor; most frequent in summer and autumn. Amber listed species of medium conservation concern. Schedule 1 species.

The approximate totals in each month and the 10-year averages are shown in the following table:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	2	2	2	2	6	3	1	2	5	22	2	2
Average county total 2011 to 2020	3	2	5	7	5	3	2	3	8	9	3	2

Apart from one-day birds in Pagham Hbr on 6 Feb and at West Rise Marsh (Eastbourne) on 18 Mar, the Rye Hbr/Pett Level area held the only individual in the county in the first quarter of the year, though a second was reported there on 9 Jan, but not subsequently, with the original remaining until 2 May.

Spring records from elsewhere were few with the only reports consisting of singles at Pagham Hbr on 4 Apr and 4 May, two at Pulborough Brooks on 11 May, and possibly the same individual at Cuckmere Haven and Pevensey Levels on 14 May.

One was in Pagham Hbr on 10 Jun, one at Scotney GP on the 14th, and another flew over Pagham Hbr on the 25th, presumably the same bird being seen at Medmerry two days later. There were



Spoonbill, Pagham Hbr, 19 December (Gary Faulkner)

no further reports in West Sussex until 23 Aug, when one was at Medmerry until the 28th. It, or another, was then present more or less continuously from 13 to 29 Sep, whilst others at this time were singles at Pulborough Brooks and Cuckmere Haven, both on the 16th. At Rye Hbr one was seen frequently throughout the summer months until 13 Sep. Two were in Pagham Hbr on 30 Sep and 1 Oct, whilst on the 2nd a first-winter bird appeared at Rye Hbr, remaining in the Rye Bay area until the year's end (joined by an adult on 21 Oct, but not subsequently). Three first-winters arrived on Thorney Island on 3 Oct, remaining until the 14th.

There was a notable flock of 14 at Medmerry on 7 Oct, rising to 15 the following day, last seen on the 9th and surely the same flock as that at Cuckmere Haven on the 11th. A single was at Medmerry on the 10th and one in Pagham Hbr on the 16th, with both presumably then together at Medmerry that day and the next. There were no more West Sussex sightings until one on the 28th, which remained between Medmerry and adjacent Pagham Hbr, with a visit to Fishbourne Channel (Chichester Hbr) on 1 Nov, until the end of the year. [A House]

Eurasian Bittern

Botaurus stellaris



Scarce winter visitor; rare outside the winter months. Amber listed species of medium conservation concern. Schedule 1 species. Section 41.

It was another poor year for the species as the table below suggests, with only two records away from the key site of Rye Hbr, where one was heard regularly and seen occasionally from 5 Feb until 1 Jun.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	-	1	1	3	2	1	-	-	-	-	-	1
Average county total 2011-2020	5	5	4	1	1	1	<1	<1	1	1	2	3

A second bird was also heard booming at Rye Hbr on several dates between 14 and 20 May, though again there were no indications of breeding. One at Rye Hbr on 22 Dec was the sole record for the second half of the year. The only other reports were of one at Pett Level on 18 Apr and a remarkable sighting on 30 Apr of one flying north-west over Seaford, being mobbed by gulls as it went. [A House]

Cattle Egret

Bubulcus ibis



Scarce resident; increasing visitor and bred for the first time in 2020. Amber listed species of medium conservation concern.

Cattle Egrets were recorded from 59 tetrads with the bulk of the records from the Selsey Peninsula, Chichester Hbr and the Arun Valley. Maximum monthly counts, including further sites, are shown in the following table.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Chichester Hbr	6	1	-	22	20	12	7	2	5	4	2	2
Selsey Peninsula	30	32	33	18	20	17	7	62	30	60	76	52
Arun Valley	4	7	6	2	4	2	2	-	1	5	4	6
Cuckmere Valley	-	-	-	-	1	-	-	-	4	3	-	-
Combe Valley CP	-	-	-	-	-	6	-	-	-	-	-	-
Pett Level	-	-	1	-	1	-	-	-	-	-	-	-

In the first winter period a mobile flock of up to 33 moved around fields on the Selsey Peninsula favouring Marsh Fm (Sidlesham) and Pagham Hbr, with 20 in the roost at Halsey's Fm on 7 Mar and a maximum of 33 at Marsh Farm on 8 Mar. Four or five were seen regularly in the Arun Valley, six at Hambrook (Chichester) on 16 Jan and one at Pett Level on 5 Mar.

Breeding was only confirmed at Pagham Hbr. There were at least two nests in the Little Egret colony at Owl Copse. Three adults and three chicks were seen on 9 Jul, four chicks begging for food on the 13th and two juveniles on the 23rd. Five juveniles were feeding with six adults in nearby fields on the 18th. One juvenile was in a treetop at Owls Copse on 24 Aug. Later another nest had adults feeding three well grown young on 1 Sep and was still active on the 6th. Post-breeding small groups and feeding flocks of 20 or more moved round the Selsey Peninsula with a maximum of 62 at Pagham Hbr on 27 Aug.

In the second winter period on the Selsey Peninsula, small groups and larger feeding flocks were seen regularly foraging with cattle, with a co-ordinated count of 76 on several fields at Marsh Fm on 6 Nov. A group of four or five were seen regularly on the water meadows at Arundel with six from 23 Dec onwards. Three were at Pulborough Brooks from 9 to 19 Dec, with four on the 14th and one or two remaining until the year end. [L Smith]



Cattle Egret, Pagham Hbr, 13 July (Dorian Mason)

Grey Heron

Ardea cinerea ●

Fairly common resident.

Grey Herons were recorded from 397 tetrads (40%) compared with 406 in 2020.

The monthly WeBS counts at the principal sites are shown in the table below. Note that January WeBS counts were affected by COVID-19 restrictions.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	104	195	160	17	77	112	89	108	152	147	109	112
Chichester Hbr	17	18	16	nc	5	18	15	20	23	30	10	16
Arun Valley N of Arundel	5	32	7	-	1	4	9	21	13	7	13	8
Weir Wood Res	7	40	45	nc	15	14	14	8	8	7	2	3
Lower Ouse Valley	8	3	9	-	2	1	5	nc	9	9	6	9
Pevensey Levels	7	11	8	nc	10	3	4	7	9	9	11	15
Rye Bay	6	18	12	1	3	8	5	11	14	14	15	18
Average county total 2011 to 2020	96	97	110	88	74	71	91	101	137	134	120	97

During the breeding season 297 nests were counted at 33 sites as part of the BTO Heronries Survey; the details are in the table below. This compares with 266 nests at 30 sites in 2020 (note four heronries were not counted in 2020 due to COVID-19 restrictions). A single nest was found at a new site at Bosney Fm (Iden).

Thorney Island Little Deeps	2	Stretham Manor (Henfield)	2	Hampden Park (Eastbourne)	6
Itchenor	0	Badgerhole Shaw (Coombes)	9	Glyndley Manor (Hailsham)	20
Forest Mere (Liphook)	2	Hammonds Mill Fm (Burgess Hill)	5	Wadhurst Park Lake	6
Old Park Wood (Fishbourne)	5	Ardingly Res	20	Wartling	12
Norton Priory	2	Weir Wood Res	32	Burwash	12
Owl Copse (Pagham Hbr)	9	Rodmell/Southease, R Ouse	5	Combe Valley CP	5
Hoe Farm (Flansham)	13	Decoy Pond (Firle Park)	3	Alder Shaw (Brede Level)	5
Warningcamp	4	Hempstead Wood (Uckfield)	3	Winchelsea	15
Northpark Wood (Parham)	9	Friston Forest (2 sites)	1	Bosney Farm (Iden)	1
Ham Manor GC (Angmering)	1	Hadlow Down	14	Houghton Green (Playden)	2
Kneppmill Pond	26	Old Park (Eridge)	17		
Warnham LNR	27	Troutbeck (Eridge)	2	Total	297

Away from the heronries, large reservoirs and harbours, most records were of one to three birds at ponds, streams and marshy areas. In the first winter period, in addition to the WeBS counts, there were 26 at Winchelsea on 27 Feb and 21 at Warnham LNR on the 24th. In autumn 13 were at Lewes Brooks on 24 Oct and in the second winter period 14 were on the Knepp Estate on 11 Nov and 12 in the lower Cuckmere Valley on the 29th. [L Smith]

Purple Heron

Ardea purpurea 

Rare vagrant. Schedule 1 species.

A juvenile photographed at the North Wall (Pagham Hbr) on 12 Sep (S Maddocks) remained in the general area of Pagham Rife until 19 Oct where, despite being elusive at times, it was seen by many observers. The county total moves on to 71, of which 23 have been this century. [P James]

Great White Egret

Ardea alba 

Scarce but increasing visitor. Amber listed species of medium conservation concern.

Great White Egrets were recorded in only 59 tetrads (5.9%), compared with 80 in 2020. The continued trend with most records occurring in the late autumn and early winter was apparent, presumably down to post breeding dispersal and birds migrating here to avoid the continental winter temperatures.

Great White Egrets were widespread along the coast for much of the year, with sightings at Rye Hbr in all months, at Pevensey Levels in eight months and at Pett Level in seven. Other coastal sightings were from Thorney Island, Medmerry, Pagham Hbr, Cuckmere Haven and Combe Valley CP. Inland, individuals were regularly recorded at Amberley Wild Brooks, Weir Wood Res and Bewl Water; at the last site there were four birds on 8 Oct. There were only three records from the regular seawatching sites; individuals flying west past Splash Point (Seaford) on 26 Apr, flying south at Selsey Bill on 22 May and flying west past both Worthing and Goring on 22 Nov.

Rye Hbr was the only site where double-figure counts were recorded, with an astonishing 17 birds present on 16 Dec, but no evidence of breeding was noted during the summer, although hopefully it's only a matter of time. [MR Eade]

Little Egret

Egretta garzetta

Scarce resident but fairly common in autumn.

Little Egrets were recorded from 246 tetrads (25%), the highest number ever and well above the 10-year average of 181. Birds are seen throughout the year, often alone, along the coast and in all the estuaries and river valleys, with the highest numbers at Chichester Hbr, Pagham Hbr, the Arun, Adur and Cuckmere Valleys, Pett Level and Rye Hbr.

The monthly WeBS counts at the principal sites are shown in the table below. Note that only a few sites were counted in January due to COVID-19 restrictions, but taking this into account, the numbers show an increase over the ten-year average.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
County total	14	75	82	109	70	107	185	324	288	365	204	122
Chichester Hbr	2	54	37	35	27	70	44	137	145	226	102	49
Pagham Hbr	6	3	6	16	11	13	58	60	57	49	21	12
Cuckmere Haven	-	-	2	nc	nc	nc	nc	nc	13	23	20	7
Rye Bay	2	5	7	8	9	8	35	66	17	24	16	25
Average county total 2011 to 2020	76	75	108	60	55	78	149	185	316	269	154	92

In the first winter period, in addition to the WeBS counts, ten were at Marsh Fm (Sidlesham) on 2 Jan, ten at Bramber Brooks LNR on 5 Feb, and in March: ten at Combe Valley CP on the 9th, 15 at Arundel WWT on the 15th and 15 in the lower Cuckmere Valley on the 30th.

A total of 65 occupied nests was recorded from nine colonies, more than the 51 in 2020. Nest counts were: six at Thorney Little Deepes (Chichester Hbr), a new site, four at Old Park Wood (Bosham), 20 at Owl Copse (Pagham Hbr), four at Warningcamp, nine at Badgerhole Shaw (Coombes), six at Rodmell (R Ouse), five at Friston Forest, three at Hampden Lakes (Eastbourne), also a new site, and eight at Rye Hbr (in the Cormorant colony at Castle Point). There were no records from Ham Manor GC (Angmering) where there was a nest in 2020.

Post breeding concentrations during August to October included 60 at Thorney Deepes on 16 Sep and 96 roosting there at dusk on 13 Oct. Groups of 20 or more were at Pagham Hbr throughout the period with 50 on 13 Aug and 52 on 12 Sep, 40 at Seaford Head on 10 Sep, 30 regularly at Cuckmere Haven with 40 on 23 Sep and 51 at Rye Hbr on 22 Aug and 45 on 25 Sep.

The highest second winter period counts were 20 at Pagham Hbr on 7 Nov, 20 at Cuckmere Haven on 9 Nov, 70 in the roost at Thorney Deepes on 11 Nov and 23 at Rye Hbr on 19 Dec. [L Smith]



Osprey, Cuckmere Haven, 21 September (Simon Watkins)

Osprey

Pandion haliaetus 

Scarce passage migrant. Amber listed species of medium conservation concern. Schedule 1 species.

The approximate monthly totals are shown in the following table and compared with the average for the previous decade.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2021	6	8	3	1	-	5	10	5	0
Average county total 2011 to 2020	3	8	8	3	2	15	20	7	<1

The first record was one fishing at Weir Wood Res on 9 Mar; it remained until the end of the month. This was five days later than the earliest date but a month before the 10-year average first date. Elsewhere in March one flew over Storrington on the 22nd, followed by singles at Peacehaven on the 27th, Pagham Hbr on the 28th and Shoreham on the 30th. One at Thorney Deeps on 31 Mar remained in the area until 16 Apr when it was being harassed by a Red Kite before flying west. One came in off the sea at East Worthing on 7 Apr although one seen along the beach at Church Norton on the 12th may also have just arrived. Notable occurrences in late spring and early summer were of one at Balcombe on 5 May carrying a fish, mobbed by two Red Kites, and one flying over the nesting White Storks at the Knepp Estate on the 23rd. There were records on 15 days in spring and early summer at Weir Wood Res until 28 Jun, the last record in the first half of the year.

There were no records in July and the first returning bird flew east at Ferring on 5 Aug. One gave good views sitting on a telegraph pole with a fish at Medmerry on 10 Aug whilst at Thorney Deeps on the 16th one was noted eating a mullet. The first duo of the year was at Medmerry on the 24th, but these appear not to be the same two seen on 1 Sep at Pilsey Sands (Chichester Hbr), one of which was a juvenile; sightings of the two at Medmerry continued throughout the early autumn and the

juvenile was also seen regularly at Thorney Deepes in this period. In East Sussex, one lingered at Cuckmere Haven from 9 to 30 Sep with two there on the 13th and one was again at Weir Wood Res from 16 to 18 Oct.

The only record of outward migration this year was of one flying out to sea at Beachy Head on 17 Sep and by the end of October all birds had departed; the last record being of one at Cuckmere Haven on the 30th, 16 days later than the 10-year average last date of 12 Oct. [BGR Ives]

Honey-buzzard

Pernis apivorus ●

Very scarce breeding summer visitor and passage migrant. Amber listed species of medium conservation concern. Schedule 1 species.

The only spring migrant was a female at Firle on 6 Jun (PC Stevens). The national survey continued from 2020 into 2021 and again seven pairs were confirmed breeding in Sussex. Five other pairs were found, none of which bred. In addition, in the breeding season and in suitable breeding habitat, there were six unpaired males and seven other individuals whose status was not determined. A paper on the county survey is on pages 232-242 of this report. Two fledglings were ringed at each of two nests.

Autumn migrants included an adult female at Beachy Head on 27 Aug (MR Eade, L Pitcher), an adult there on 5 Sep (L Pitcher), a juvenile over Cootham on 11 Sep (P Davy), one over Beachy Head on 17 Sep (ME & RH Charlwood), juveniles over both Hove (CA Holt) and Beachy Head (SH Linington, L Pitcher) on 21 Sep and another juvenile at Beachy Head on 25 Sep (RA Butler). However, there were at least 16 additional records of autumn migrants that were not submitted for assessment by SOSRC. From 2022, Honey-buzzard is no longer a description species in Sussex. [M Mallalieu]



Honey-buzzard, Sussex, 1 July (Dorian Mason)

Sparrowhawk

Accipiter nisus



Common resident and passage migrant. Amber listed species of medium conservation concern.

Sparrowhawks were recorded in 445 tetrads (45%), similar to the 10-year average of 442. In the early year SWBS, they were encountered in 8.4% of squares surveyed with singles noted in ten surveys, and in the GBW they were recorded in 48% of participating gardens during the year.

Breeding was confirmed in 20 tetrads, the highest number since 2011, and probable in a further 28. Display was first noted on 6 Feb at Worthing, an occupied nest was seen on 26 Apr at Shoreham, a bird with food was observed on 10 Jun at Arundel and on 24 Jun a family of fledged young were heard from an Angmering garden. During the BBS, the species was found in 11% of squares surveyed with only singles recorded where present.

The highest late summer counts were of four at Shoreham on 27 Aug and at Beachy Head on 28 and 29 Aug. Thereafter until the end of the year, the maximum count was three, recorded at four locations: Pagham Hbr, Pulborough Brooks, Balcombe and Beachy Head; other records were mostly of singles. In the late year SWBS, Sparrowhawks were encountered in 7.6% of squares with only singles recorded where present.

Prey species recorded were Feral Pigeon, Collared Dove, Blue Tit, House Martin, Starling, Blackbird, Dunnock, House Sparrow, Goldfinch and an unidentified small mammal. There were no records of birds flying in off the sea or out to sea in 2021. [MJ Chattaway]



Sparrowhawk, Barcombe, 1 October (Simon Linington)

Goshawk

Accipiter gentilis

Very scarce but increasing resident. Schedule 1 species.

There was a large increase to at least 50 territories (37 in 2020), of which 25 held confirmed breeding pairs. Breeding was probable at 14 sites and possible at 11 more. Records of individuals at another 11 locations during the breeding season were considered to relate to non-breeding birds or those wandering from known sites. As in other recent years, coverage was incomplete, so the true number of territories is likely to be even higher. The core breeding areas remain the western Weald, parts of the South Downs, and the Weald of central and East Sussex, though there is some evidence of expansion beyond this region. Almost all winter records came from within the breeding range.

Juveniles were flying from mid-June, with at least 32 individuals seen, though the true number of young produced is likely to be more than double that figure. A juvenile Goshawk was seen to catch a Jackdaw on 9 Jul and other prey species recorded included Grey Squirrel, Woodpigeon, fledgling Sparrowhawk, Jay and Magpie. A dead adult Common Buzzard was thought to have been the victim of a nesting Goshawk. [M Mallalieu]

Marsh Harrier

Circus aeruginosus

Scarce passage migrant and winter visitor; very scarce breeder since 2004. Amber listed species of medium conservation concern. Schedule 1 species.

Marsh Harriers were recorded in 85 tetrads (8.5%), compared to the 10-year average of 65. Records were received in every month of the year from Pagham Hbr, the Arun Valley (including Pulborough Brooks), Pett Level and Rye Hbr. They were also recorded in 11 months from Thorney Island and Deeps. Conservative numbers of birds in Sussex are shown in the following table.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
No. of birds	25	14	14	20	15	17	10	14	33	16	15	30

Most records from the first winter period were from the above named sites. The highest counts during this period, all in January, comprised eight at Pagham Hbr on the 3rd, six at Arundel WWT on the 1st and five at Pevensey Levels on the 3rd.

Successful breeding occurred at one East Sussex site with at least two young fledged. At a second East Sussex site, two males and three females were present during the breeding season and birds were seen bringing food to a probable nest site, fledged young were seen but no count of juveniles was made. At a third East Sussex site, a food pass was observed but there were no further breeding records.

In West Sussex, successful breeding occurred at one site, with two young fledged. At a second well-watched site, the parents were both present on 11 Jun and bringing food to the nest area but a week later the male had disappeared. The female continued to bring food to the nest but on the 26th, very sadly, she was found entangled in fishing line and very seriously injured. Although rescued and taken into care, unfortunately she died and the young were presumed to have perished. At a third location, display with food passes was seen during the breeding season but there was no confirmation of breeding.

An early sign of movement was a juvenile over Hastings on 21 Jul followed by one offshore at Worthing on 1 Aug. Also in August, two juveniles were at Pagham Hbr on the 1st, a juvenile was at Thorney Deeps on the 9th, one was at Rodmell on the 11th, a tagged individual was at Rye Hbr on the 22nd, one was at Barcombe Mills on the 24th and one flew west at Goring on the 29th. In September, five flew east over Brighton on the 8th, one flew south from Beachy Head on the 16th and four were seen at the latter location on the 21st. Also on the 21st, singles were seen at Selsey Bill and Weir Wood Res. Most autumn records were from the usual locations with the highest count of eight coming

from Offham (Arun Valley) on 1 Oct. The highest count of the second winter period was of ten on 21 Dec at Arundel WWT with six further counts of between five and nine in the Arun Valley. Elsewhere, six were seen at Rye Hbr on 25 Nov, four were at Pevensey Levels on 18 Dec and four were at Pett Level on both 22 and 31 Dec. [MJ Chattaway]

Hen Harrier

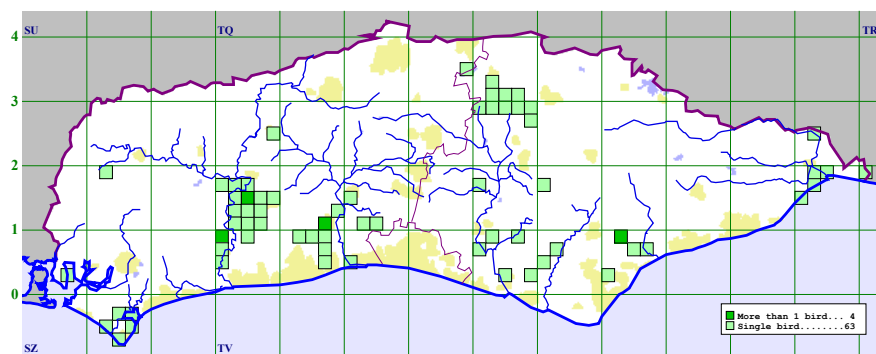
Circus cyaneus 

Scarce winter visitor and passage migrant. Red listed species of high conservation concern. Schedule 1 species. Section 41.

Hen Harriers were recorded in 61 tetrads (5.9%) compared to the 10-year average of 47 (range 30 to 70). The sum of the estimated monthly totals* of only 51, shown in the following table is conservative, and fewer than the 57 in 2020. The species continues to suffer from persecution on some grouse shooting estates in northern Britain which will influence sightings in Sussex.

	Jan	Feb	Mar	Apr	May	Jun	Sep	Oct	Nov	Dec
County total	6	12	6	2	2	2	2	6	8	5
Selsey Peninsula	-	1	-	-	-	-	1	1	1	1
West Sussex Downs	3-4	3	2	1	-	2	-	2	2-3	2
Arun Valley	1	1	-	1	-	-	1	-	2	2
East Sussex Downs	1	1	1	-	-	-	-	-	1	-
Ashdown Forest	-	1	1	-	-	-	-	1	1	1
Ouse Valley	1	1	1	-	-	-	1	1	-	-
Pevensey Levels	1	2	1	-	-	-	-	-	-	-
Rye Bay	-	2	-	-	1	-	-	-	1	1
Others	1	1	-	-	1	-	-	1	1	-

* Monthly totals are not necessarily the sum of location totals as some birds may have been seen in more than one location.



All observations in January were of singles, with most from the West Sussex downland and Arun Valley (from the 1st to 30th) with descriptions indicating there were three or four individuals present in this area during the month. Elsewhere sightings came from Berwick (1st and 8th), Lewes (10th), Newhaven (17th), West Rise Marsh (Eastbourne) (17th) and Pevensey Levels (2nd and 23rd). Probably some sightings involved the same individuals. In February, there were two records of two (male and female) at The Burgh (Burpham) on the 10th and Steyning on the 25th; records were again predominantly from the West Sussex downland and the Arun Valley. Two were present throughout the month on Pevensey Levels, a male was on Ashdown Forest from 22 Feb until at least 22 Mar and at Rye Hbr a male was seen on the 14th and a ringtail on the 28th. An unusual location was

East Hoathly where a male was observed on the 19th and 21st, which could have been the Ashdown Forest bird. In March, locations were similar but in April, sightings dropped with probably only two. On 17 May, an adult male was seen to fly in off the sea at Pett Level and a female was seen at Weir Wood Res on the 18th. There were two June records, on the 1st at The Burgh and a flyover male at Washington on the 13th.

The first returning Hen Harrier was at Hurstpierpoint on 22 Sep which may have been that seen at Pagham Hbr on the 27th and 28th, and Pulborough Brooks on 27th. One was seen at Rodmell on the 29th. Six were observed in October including two on the 22nd in the Kithurst Hill/The Burgh area, a male on Ashdown Forest from the 16th to 23rd and at Rodmell on the 25th. In November, records increased and included two at Steyning on the 23rd and probably three in the Arun Valley and nearby downland. A high-flying ringtail over Bepton (north of Chichester) was noted on the 16th. There were at least five in December, most from localities in and around the Arun Valley with two seen at Amberley Wild Brooks on the 24th; all other reports being of singles including a male which was seen in the Rye Bay area on the 14th, 15th and 23rd. [MJ Chattaway]

Red Kite

Milvus milvus 

Scarce or fairly common breeding resident (first bred in 2004) and fairly common and increasing visitor. Schedule 1 species.

Red Kites were recorded in 422 (43%) tetrads, a slight decline from 2020, but the trend over the last decade is steeply upwards. In the first winter period, there were several double-figure counts, all from The Burgh/Burpham area with up to 20 present through to the end of March. The only count of a roost site in this area was of 14 on 18 Feb. Between one and six were at many inland sites in this period.

Six were seen at Beachy Head coming in off the sea on 31 Mar. At Pett Level 32 flew east in 40 minutes on 19 May. An impressive 76 flew east on 5 Jun at Crowhurst between 11:45 and 13:45 and slightly later that day 65 were seen flying north over Playden between 12:00 and 14:30. It is likely these were the same birds.

Breeding was confirmed at five locations, three in West Sussex and two in East Sussex, and considered probable in about 16.

There were few double-figure counts in the autumn and second winter period, the highest being 14 at The Burgh on 30 Sep and 55 arriving at a nearby roost site in mid-December. [BGR Ives]

Black Kite

Milvus migrans 

Rare vagrant.

The only record was of one in the lower Cuckmere Valley 400m south of Exceat Bridge on 4 Aug (NM Greenaway, NJN Pope). It departed west towards Seaford. The county total moves on to 49, of which 30 have been this century. [P James]

White-tailed Eagle

Haliaeetus albicilla 

Rare vagrant. Reintroduction scheme on the Isle of Wight. Amber listed species of medium conservation concern. Schedule 1 species.

There were records from January to October that all related to immature individuals from the IoW. Most sightings came from Amberley Wild Brooks, Pulborough Brooks, The Burgh (Burpham) and adjacent part of the Arun valley between 14 Mar and 19 Oct, usually of singles but there were two on several dates from 14 Mar to 9 Apr. The same two eagles roosted in Angmering Park on 12 Mar.

Elsewhere there were sightings at the coast from Chichester Hbr to Climping, Littlehampton,

Worthing, Brighton, Newhaven, Seaford, Beachy Head and Rye with records in January, February, March, April, June, August and September, as well as inland sightings on the West Sussex downs north of Chichester, the Knepp Estate, Plumpton, Lewes and Arlington. These records relate to one or other of the tagged birds: a 2019 released male, G393, two males released in 2020, G408 and G461, as well as a 2020 female G405. Additionally G274, the IoW resident male, made a few trips across the Solent, usually to the west of the island but he did visit Chichester harbour and the South Downs on 26 Jan. [M Mallalieu]



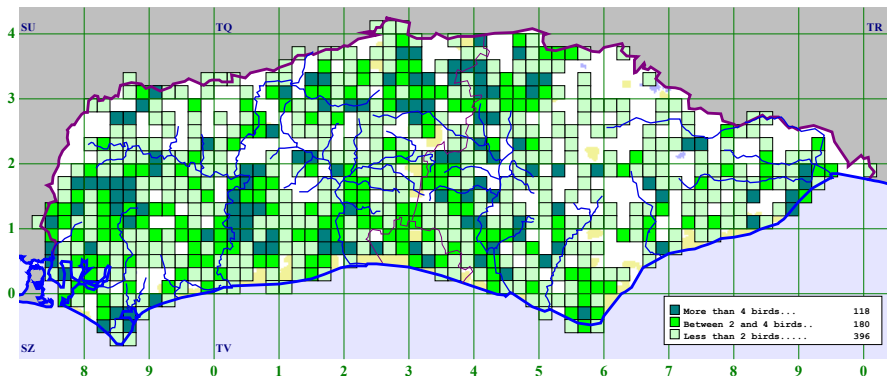
White-tailed Eagle, Amberley, 26 April (Andy Wilkes)

Common Buzzard

Buteo buteo ●

Fairly common and increasing resident; probably scarce passage migrant.

Common Buzzards were recorded in 694 tetrads (70%), a slight reduction on 2020 but the second highest number on record. The map plotting the highest number recorded in each tetrad clearly shows more are found west of the 50 easting.



There were 49 counts of ten or more during the year, 32 in West Sussex and 17 in East Sussex with the highest being 27 at Handcross on 1 Mar, 23 at Glynde Levels on 14 Apr and 22 at Gravetye

Lakes (West Hoathly) on 22 Mar. During the early year SWBS, the species was encountered in 55% of squares surveyed with a maximum of six in two squares (Glynde Levels on 18 Feb and East Chiltington on 27 Feb).

Breeding was confirmed in 22 tetrads and probable in a further 77. As is usual for Common Buzzards actual breeding records were few but display was first noted on 5 Jan at Elmer (Middleton-on-Sea), a bird visiting a probable nest site was observed on 17 Mar at Houghton, birds with nesting material were seen on 28 Mar at Falmer and a pair on a nest were seen on 10 Apr near Emsworth. A nest with young was recorded on 30 May at Balcombe and the first fledged young were seen on 3 Jun at Rewell Wood (Arundel). Four pairs nested at Thorney Island. During the BBS, they were recorded in 58% of squares surveyed with a maximum of eight at Westdean Woods on 26 May.

There were only five double-figure counts during the summer until 31 Aug. On 31 Jul, there were 12 at Hindleap Warren (Ashdown Forest) and 11 at Pulborough Brooks. In August, ten were at Danehill on the 20th, 13 at Beeding Hill on the 25th and 12 at Pulborough Brooks on the 29th. In September, counts included 16 at Arlington Res on the 18th and 13 at Church Norton on the 15th with three further counts of ten at other locations. Most records until the end of the year were of fewer than five with the highest counts being 12 at Pulborough Brooks on 13 Oct and ten at Patching on 31 Oct. During the late year SWBS, Common Buzzards were recorded in 49% of squares surveyed with a maximum of five at Glynde Levels on 8 Nov.

There was an interesting record of an adult bringing what looked like a small snake to a nest with young at Balcombe on 30 May and a grass snake was being carried at Weir Wood Res on 4 Aug. [MJ] Chattaway]



Common Buzzard, Lewes, 5 December (Tim Duffield)

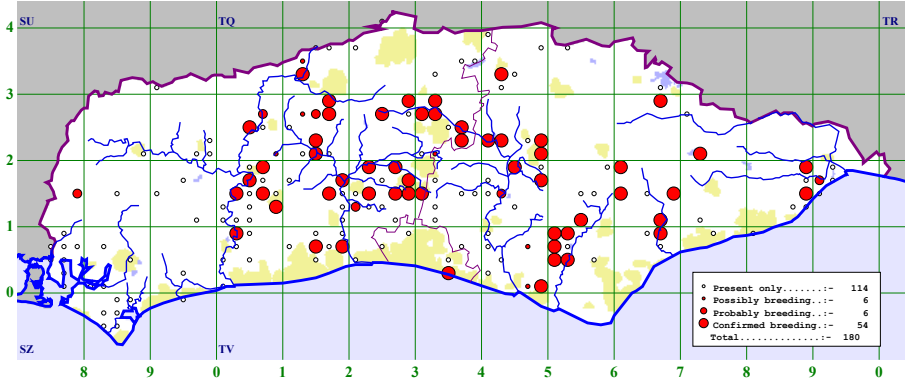
Barn Owl

Tyto alba



Fairly common resident. Schedule 1 species.

Barn Owls were recorded from 180 tetrads (18%), a decrease from the 205 in 2020 but similar to the 10-year average of 179 tetrads (range 151 to 208).



The map shows that breeding was confirmed in 54 tetrads; 53 locations had breeding pairs in boxes ringed by the Barn Owl Study Group, including a single brood of six and four broods of five chicks. Mean average brood size in Sussex was 3.2, which significantly exceeded the recorded national mean average of 2.6 and the highest mean average brood size recorded from all other United Kingdom Barn Owl groups. Probable breeding was reported from six tetrads and possible from another six. [TD Hallahan]



Barn Owl chicks, Sussex (Brooke Haycock)

Little Owl

Athene noctua ●

Fairly common but declining resident.

Little Owls were recorded in 51 tetrads (4.9%), fewer than both 2020 and the 10-year average of 71 (range 51 to 117). As in 2020, breeding was confirmed in only two tetrads, with only a further five where breeding was considered as possible or probable.

Worryingly, there are now very few locations where Little Owls are reliably seen, with the Knepp Estate, Gatwick Airport and Fletching proving consistent throughout the year. An individual at Cuckmere Haven was welcome as this was once a reliable location for this slowly declining species. The future is looking rather bleak for this owl. [MR Eade]

Long-eared Owl

Asio otus ●

Scarce resident and very scarce passage migrant and winter visitor.

Long-eared Owls were recorded from seven sites during the year, and at only three of these during the first winter period. Birds were seen at two known roosts on downland, with up to two present at one site between 7 Jan and 2 Mar, and at the second roost up to three were recorded between 15 Jan and 2 Mar. On 17 Jan one was discovered at an inland location away from the South Downs and river valleys, a rare occurrence in Sussex. No spring migrants were recorded.

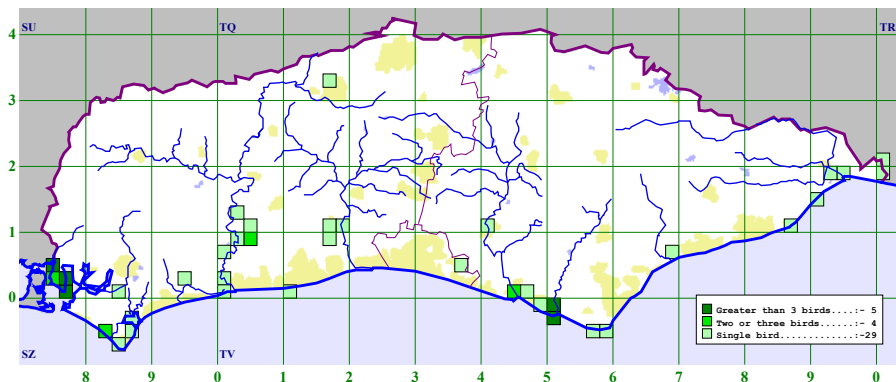
All but one of the breeding season records came from or close to scrub on downland, with breeding confirmed at two of these sites and a pair recorded at a further location. On the downs a female was heard calling on 17 Mar from suitable breeding habitat, a pair was seen on 17 Apr at a location where this species successfully bred in 2000, and on 11 May another was seen in downland scrub. Breeding was confirmed at one regularly used site with three young heard on 27 May, and at another location one young was heard on 8 and 21 May. Away from the downs one bird was found roosting during the day on 24 May at a coastal site with suitable breeding habitat.

No autumn migrants were seen, and unusually no birds were recorded in the second winter period. This species is very rarely encountered by chance and without widespread and concerted recorder effort throughout suitable habitat it will be under-recorded; therefore these records likely represent a significant understatement of the species true numbers and range in Sussex. [D Green]

Short-eared Owl

Asio flammeus ●

Scarce winter visitor and passage migrant; last bred 1922. Amber listed species of medium conservation concern.



Short-eared Owls were recorded from 38 Sussex tetrads (3.9%), a decrease compared to 54 in 2020 and the 10-year average of 59. The distribution of records is shown in the map above.

Approximate monthly totals and the 10-year averages, are shown in the table below.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	1	9	3	10	3	1	0	2	4	5	19	19
Average county total 2011 to 2020	22	15	12	10	6	1	<1	4	6	20	22	20

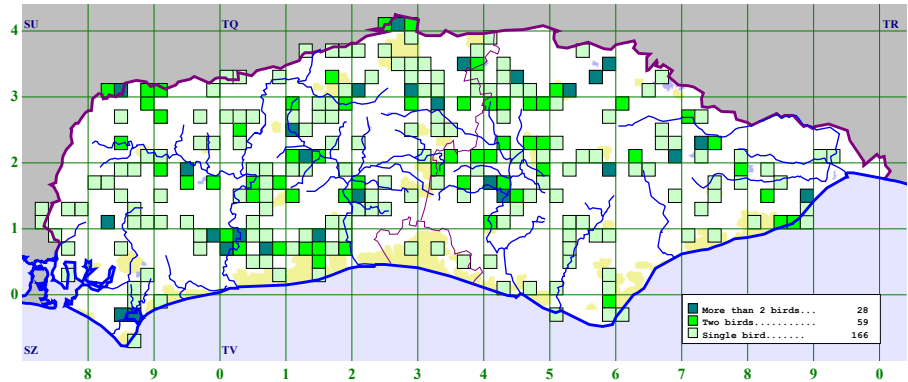
In all months, bar April, there were fewer than the average. During the first half of the year sightings were of single birds except for two on the Norfolk Estate on 10 Feb and two at Newhaven Tide Mills on 27 Apr. During the second winter period most were seen in Chichester Hbr where the maximum was six birds roosting at Pilsey Island and a different five hunting at Thorney Deepes, both on 25 Nov. Fewer were recorded in East Sussex where the maximum was four at Cuckmere Haven on 10 Dec. [TD Hallahan]

Tawny Owl

Strix aluco 

Common resident. Amber listed species of medium conservation concern.

Tawny Owl distribution during the year is shown in the map below.



The species was recorded in 253 tetrads (26%), an increase compared to the 239 in 2020 and the 10-year average of 224 (range 195 to 330). There was confirmed breeding in 14 tetrads, and breeding was probable in a further 13 and possible in 31. The Sussex Barn Owl Study Group (SBOSG) ringed birds in boxes in three locations. As can be observed from the table below, showing the number of sites where Tawny Owls were recorded in each month, they were found at 63 sites in mid breeding season (May). A count at 74 sites in January is augmented by reports of vocal activity.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Sites	74	35	45	59	63	51	53	43	37	54	43	36	311

Five were recorded from Crowborough and Maynard's Green and at eight locations there were records of four birds (Marley Common, Lavington Common, Cissbury, Henfield, the Knepp Estate, Ardingly Res, Weir Wood Res and Barcombe), most of which were in the winter periods. [TD Hallahan]

Hoopoe

Upupa epops ●

Very scarce spring and even scarcer autumn passage migrant; has bred. Schedule 1 species.

After the remarkable influx of Hoopoes in 2020 there were only three in spring and two in autumn. One was in Winchelsea on 17 and 18 Apr (CM George), one at Rottingdean on 29 and 30 Apr (R Todd) and a third at Beachy Head on 25 April (ME & RH Charlwood). The autumn records were of one at Brighton on 24 Oct (J Power) and one that briefly flew by an observer at Pagham Hbr on 31 Oct (M Morley). The average for this century is 3.6 in spring and 0.95 in autumn (excluding the exceptional count of 22 in 2020). [PJ Plant]



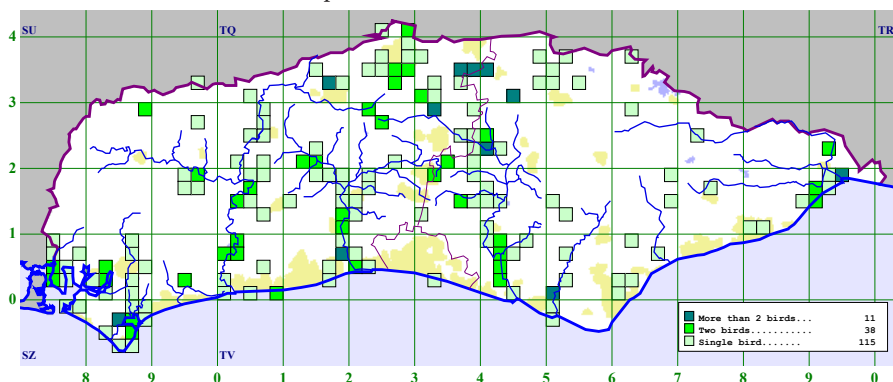
Hoopoe, Rottingdean, 30 April (Tim Squire)

Kingfisher

Alcedo atthis ●

Scarce to fairly common resident and possibly very scarce winter visitor. Schedule 1 species.

Kingfishers were recorded in 164 tetrads (17%), slightly more than the 10-year average of 149. The distribution is shown in the map below.



They were recorded in every month of the year at Arundel, Pulborough Brooks, Warnham LNR and Weir Wood Res and in 11 months of the year at Rye Hbr. Throughout the year most records were of one or two but in the first winter period three were seen at Sheffield Park on 21 Jan and Weir Wood Res on 14 Mar.

Although breeding was confirmed in just five tetrads it was considered probable or possible in a further 15. The confirmed breeding was at Arundel WWT, Henfield, Weir Wood Res, Plumpton and Pippingford Park (Ashdown Forest).

High counts between the summer and year end included five at Pippingford Park on 15 Jul, four at Warnham LNR on the 25th, five at Weir Wood Res on 6 Aug and 24 Oct and four at both Arundel WWT on 21 Oct and Rodmell on 11 Dec. [T Seabrook]



Kingfisher, Warnham LNR, 5 November (Dorian Mason)

Bee-eater

Merops apiaster

Very scarce visitor, mainly in spring; bred once in 1955. Schedule 1 species.

There were three records totalling at least 14 individuals in 2021. At least four, possibly six, birds seen over Bevendean (Brighton) on 18 May (M Haynes) were followed by two at Beachy Head on 30 May (ME & RH Charlwood). A party of eight over Shooters' Bottom (Beachy Head) at 08:07 hr on 26 Aug (L Pitcher, A Redman) were also seen over Whitbread Hollow at 08:45 hr. The total recorded this century moves on to at least 109 with records in all but two years since 2000. [P James]

Wryneck

Jynx torquilla

Very scarce passage migrant; most in autumn; last bred in 1944. Schedule 1 species.

The year was close to the average for the previous decade as the table shows:

	Apr	May	Jun	Jul	Aug	Sep	Oct	Total
2021	2	-	-	-	6	12	-	20
Average county total 2011 to 2020	1	<1	0	0	7	9	1	18

There were two spring records with one at Sheepcote Valley (Brighton) on 22 and 26 Apr and one at Playden (Rye) on 25 Apr.

The autumn passage started with one at Arundel Watermeadows on 26 Aug, swiftly followed by singles at Newhaven Tide Mills from the 28th to 31st, Church Norton from the 29th to 31st, Old Lodge LNR (Ashdown Forest) on the 30th and South Mundham on the 31st. There was one at Sheepcote Valley on 29 Aug and possibly the same bird on 4 to 6 Sep. In September there were singles at Cuckmere Haven on the 1st to 3rd, Climping on the 2nd, 3rd and 5th, Thorney Island on the 2nd, Beachy Head on the 3rd and 4th, Pett Level on the 3rd, Combe Valley CP on the 6th, Findon Valley on the 8th, West Rise Marsh (Eastbourne), Hastings CP, and Pulborough all on the 13th and Lancing on the 19th. Finally, there was another at Hastings on the 21st. [KW Smith]



Wryneck, Cuckmere Haven, 3 September (Gary Faulkner)



Lesser Spotted Woodpecker, Battle, 18 August (David Gardiner)

Lesser Spotted Woodpecker

Dryobates minor 

Very scarce and declining resident. Red listed species of high conservation concern.

Section 41.

The species was recorded in 40 tetrads in 2021, a welcome increase from recent years. Breeding was confirmed in two tetrads, probable in seven and possible in a further five.

In January and February there were records from six sites. There were single birds at Burpham and Offham Hanger (Arundel) on 1 Jan and Buchan Park on the 5th and 7th. At Pippingford Park (Ashdown Forest) there was a series of records; two on 22 Jan, one on the 27th and 2, 19, 25, 26, 27 Feb. One was at Oving on 25 Feb and two at Wadhurst Park on the 25th.

The bird at Offham Hanger was drumming on the early date of 1 Jan but it was late Feb (the 26th and 27th respectively) before the birds at Pippingford Park and Wadhurst Park were drumming. The last record of drumming was at Crowborough on 30 May, a comparatively late date for this species.

During the breeding season from March to mid-June there were records from 24 sites thinly spread over the county: Arundel WWT, Ashburnham Place (Battle), Ashdown Forest (two sites), Balcombe, Brede High Wood, Broadwater Warren, Burgess Hill, Crowborough, Darwell Res, Eastbourne, Eridge Park, Etchingham, Fernhurst, Flatropers Wood (Peasmarsh), the Knepp Estate, Little Strudgate (Wakehurst), Netherfield, Paddockhurst (Worth), Rackham Woods, Tortington (Arundel), Uckfield, Wadhurst Park, and Worthlodge Forest. Most of these records were of calling or drumming birds or pairs.

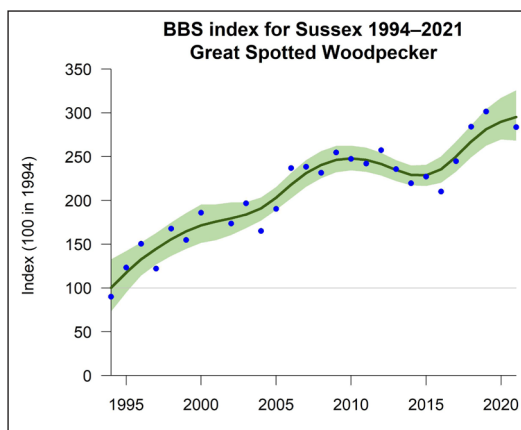
Thanks to the efforts of some dedicated observers three, possibly four, nests were reported. Near Fernhurst a male was seen excavating a complete cavity which was not subsequently used. On Ashdown Forest two nests were monitored with young successfully fledging from both. At another site in East Sussex adults were feeding noisy young in a nest on 3 Jun.

From mid-June until the end of the year single birds were recorded from nine sites. There were birds at Arundel WWT on 24 Jun, Etchingham on the 26th, Pippingford Park on 15 Jul, Battle on the 24th and Nymans (Handcross) on the 31st. In Aug there were birds at Graffham Common on the 3rd, Battle on the 6th, 7th, 9th, 12th, 17th & 18th and Lordship Wood (Cripps Corner) on the 21st and 22nd. A male was found at Pulborough Brooks on 25 Nov and was frequently observed through December feeding on dead elms with the last report on the 21st. At Waltham Brooks one was seen on 17 Dec. [KW Smith]

Great Spotted Woodpecker

Very common and increasing resident.

Dendrocopos major



The species was recorded in 663 tetrads (67%), similar to 2020 but above the 10-year average of 566. The graph shows the increase in the county since 1994 as measured by the BBS.

In the first winter period the highest counts were ten at Goffs Park (Crawley) on 8 Jan, eight at Pulborough Brooks on the 23rd and ten there on 21 Feb. There were seven at Paddockhurst (Worthing) on 17 Mar and 11 at Northpark Wood (Parham) on the 23rd. In the first winter period SWBS, 148 were recorded in 72 of the 119 squares (61%) surveyed. It was an early season with the first reports of

drumming from Goring Gap and Burgess Hill on 1 Jan and The Pells (Lewes) on the 2nd.

A total of 483 encounters were recorded during the BBS when the species was recorded in 70% of the squares surveyed. In April and May there were maximum counts of seven at Roundstreet Common (Loxwood) on 7 Apr, eight at Pulborough Brooks on the 11th, eight at Bayham on the 15th, seven at Northpark Wood (Parham) on the 20th and seven at Verdley Place (Fernhurst) on the 24th. There was confirmed breeding in 30 tetrads and probable breeding in a further 78, a small decrease from 2020. On RSPB reserves there were 16 pairs at Broadwater Warren, five at Fore Wood (Crowhurst), three at Pagham Hbr and two at Pulborough Brooks. The highest summer counts were seven at West Lavington on 8 Jun, seven at Pulborough Brooks on the 16th, nine at Loxwood on the 19th and seven at Wivelsfield on the 24th. There were nine at Northpark Wood on 20 Jul and 24 Aug and seven at Worth Forest on 11 Aug.

In autumn there were six at Church Norton on 11 Sep and eight at Northpark Wood on 22 Sep and 26 Oct. In the second winter period SWBS, 125 were recorded in 77 of the 157 squares (49%) surveyed. Spring arrives early for this species with drumming reported at Knowlands Fm (Barcombe) on 15 and 25 Dec, at Elmer on the 24th and Waltham Brooks on the 26th.

The species is a frequent visitor to garden feeders and in 2021 was recorded in 243(69%) of the 355 gardens contributing to the BTO Garden Bird Watch. [KW Smith]

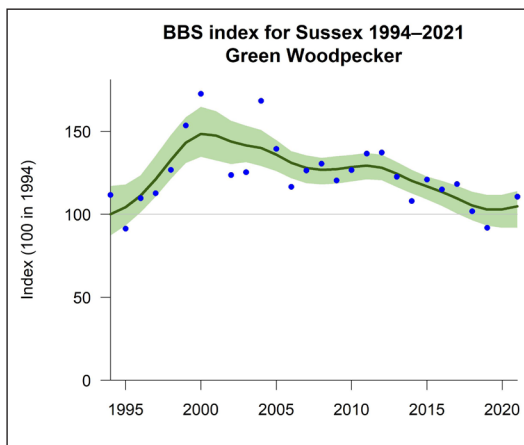


Green Woodpeckers, Beachy Head, 21 June (Roger Charlwood)

Green Woodpecker

Common resident.

Picus viridis



Green Woodpeckers were recorded in 572 (56%) tetrads in 2021, yet another small increase and well above the 10-year average of 507 although the BBS index (left) shows a decline over the last two decades; they were recorded throughout the year with a peak in April.

In the first winter period the highest counts were during timed surveys with six at Lavington Plantation on 18 Feb and five at Pulborough Brooks on 1 and 3 Jan, 27 Feb and 6, 8, 13, 14 and 21 Mar. There were also counts of five at Petworth Park on 5 Feb, Northpark Wood (Parham) on the 23 Feb and 23 Mar, Oreham Common (Henfield) on

27 Feb, Arlington Res on 16 Mar, Ditchling Beacon on the 22nd and Perching Sands Fm (Edburton) on the 30th. Overall, in the first winter period SWBS, 75 were recorded in 49 (41%) of the 119 squares surveyed.

Breeding is greatly under-recorded but was confirmed in 12 tetrads, largely because of the presence of recently fledged young, and probable in a further 41, similar to 2020. There were some high counts during the breeding season (April to June) usually during timed surveys. Eleven were reported from Petworth Park on 19 Apr with seven there on 5 Jun. There were eight at Northpark Wood (Parham) on 20 Apr and seven at the Knepp Estate on 31 May. Six territories were reported from Pagham Hbr. During the BBS Green Woodpeckers were recorded in 62% of squares surveyed.

The highest late summer/autumn count was ten at Pulborough Brooks on 14 Aug with seven at Northpark Wood on 20 Jul and eight at Keynor Fm (Sidlesham) on the 27th. The highest counts from October to the end of the year were four each at Pulborough Brooks on 5 and 15 Oct, the Knepp Estate on the 7th and 10th, Thorney Island on 9th, Battle and Pagham Hbr on the 31st and West Grinstead on 10, 19 and 29 Nov. At Petworth Park there were five on 15 Nov. In the second winter period SWBS, 67 were recorded in 50 of the 157 squares (32%) surveyed.

In 2021 the Green Woodpecker was recorded in 109 (31%) of the 355 gardens contributing to the BTO Garden Bird Watch. [KW Smith]

Kestrel

Falco tinnunculus 

Fairly common or common resident and passage migrant. Amber listed species of medium conservation concern.

Kestrels were recorded in 518 tetrads (52%), compared with the 10-year average of 493 and the highest number recorded. They were recorded in more tetrads than Sparrowhawk (445) but fewer than Common Buzzard (692). Most records during the first winter period were of one or two; the highest count reported was of five at The Burgh (Burpham) on 11 Feb, with four at Ovingdean on 5 Jan, Burpham on 23 Jan and Thorney Island on both 22 Feb and 13 Mar. During the SWBS, they were recorded in 23% of squares surveyed with a maximum of two in nine squares.

Breeding was confirmed in 19 tetrads and probable in a further 29. A female was seen visiting a nestbox on 2 Feb at Chesworth Fm (Horsham), a male was seen with food there on 15 Mar, and a food pass between male and female was observed at Bentley (Halland) on 25 Mar. A nest with young was noted on 13 Jun at Ardingly Res and the first fledged young were observed on 19 Jun at Balcombe. A brood of five was recorded at Fishbourne and three pairs nested at Thorney Island. During the BBS, Kestrels were recorded in 19% of squares surveyed with a maximum of three at Petworth Park on 19 Apr and Westmeston on 30 Jun.

In July, five were seen in the lower Adur Valley on the 9th with four at five further locations and in August, five were counted at Lindfield on the 24th and Medmerry on the 28th with four at eight further locations. The highest count at Medmerry in the autumn was ten on 11 Sep. Elsewhere there were eight at Beeding Hill on 24 Sep, six at Pagham Hbr on 15 Oct and five at four further locations. Six was the highest second winter period count, at Medmerry on 25 Nov and 5 Dec with five at The Burgh on 1 Nov and Pulborough Brooks on 16 Nov. During the late year SWBS, Kestrels were encountered in 21% of squares surveyed with a maximum of two at Pagham Hbr on 25 Nov. [MJ Chattaway]

Merlin

Falco columbarius 

Scarce winter visitor and passage migrant. Red listed species of high conservation concern. Schedule 1 species.

Merlins were recorded in 48 tetrads (4.9%), compared to the 10-year average of 52 (range 43 to 74), a significant decline of 35% on the previous year. The number of records submitted was also down by 26% on 2020. The approximate monthly totals in the following table compare favourably with the 10-year average in the early part of the year but less well in the later months.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	15	10	10	6	0	0	0	3	6	10	9	12
Average county total 2011 to 2020	11	8	8	5	1	0	0	2	11	17	11	11

In the first winter period, they were recorded across the county from sites such as Pagham Hbr, Pulborough Brooks and Rye Hbr. Notable sightings included one chasing a Skylark at Pulborough

Brooks on New Year's Day, one pursuing a Kingfisher at Rye Hbr on 8 Jan and an ambitious individual catching, but then dropping, a Teal, also at Rye Hbr on 7 Mar. All records in the first winter period were of singles apart from two at Amberley Wild Brooks on 10 Jan.

Birds on migration included one moving north off the sea at Goring on 14 Mar whilst at Selsey Bill one was seen moving east on 28 Mar and another going north on 23 Apr. Both these birds may have been hunting offshore. The last record of the spring was of one at Steyning on 29 Apr.

The first of the autumn was at Thorney Island on 22 Aug followed by one at Selsey Bill hunting offshore on the 27th (subsequent autumn records may refer to this bird) and one at Beachy Head on the 29th. On 10 Sep a juvenile was on a shingle bar at Seaford, one lingered at Beachy Head from the 15th to the 21st and one was at Broomhill Level on the 19th.

Records from October until the end of the year were all of single birds except for two at Harting Down on 10 Dec and most were from the expected coastal sites and included a female at Pilsey Island (Chichester Hbr) on 3 and 24 Nov and a male sitting on a fence post devouring a small bird at Thorney Island on 15 Dec. There were at least two Merlins present on the Selsey Peninsula in this period, a female along the banks at Medmerry and a well-watched bird in Pagham Hbr, which frequented Tern Island. A male and female were present at Rye Hbr in December. [BGR Ives]

Hobby

Falco subbuteo 

Scarce breeding summer visitor and passage migrant. Schedule 1 species.

Hobbies were recorded in 169 tetrads (17%) compared with the 10-year average of 156 (range 127 to 196).

The first was at Weir Wood Res on the 25 Mar, only four days later than the earliest ever first date of 21 Mar and 25 days earlier than the mean ten-year average arrival date of 17 Apr. The next was at Pevensey Levels on 29 Mar and in the following two weeks early birds were also noted at Thorney Island, Midhurst, Pulborough Brooks, and Playden. Four were seen coming in off the sea at Brighton Marina on 24 Apr. On the same day 1 N at Selsey Bill was the first there followed by six more in April with a high of three in off the sea on the 29th. Inward migration continued with another 11 arriving at Selsey Bill in the first two weeks of May whilst eight were noted at Rye Hbr on the 12th, this rising to ten by the 16th. These latter birds gave excellent views as they fed on the abundance of St. Mark's Flies over Castle Water. Three were on Ashdown Forest on 26 May, eight at Amberley Wild Brooks the next day and four at Pulborough Brooks on the 30th.

Breeding was confirmed in only two tetrads: a pair with one carrying prey for young on Ashdown Forest on 31 Jul and a pair with two chicks near Handcross on 15 Aug. Additionally, breeding was probable in ten more tetrads and possible in a further 20.

Throughout the summer and into the autumn most sightings involved one or two individuals and included a pair chasing a cockatiel on Ashdown Forest, ultimately without success, on 16 Aug. In September there were two reports of three: on Ashdown Forest on the 9th, at Pulborough Brooks on the 18th; and in October three were at Arundel WWT on the 6th.

Outward migration continued into September with birds at Newhaven Tide Mills on the 11th and Seaford on the 13th and three different birds flew out from Selsey Bill between 16 and 19 Sep. Two were at Beachy Head on 14 Oct but the last record of the year was of one at Amberley Wild Brooks on 16 Oct, two days earlier than the 10-year average last date. [BGR Ives]

Peregrine

Falco peregrinus ●

Scarce breeding resident. Schedule 1 species.

The Peregrine population continues to thrive, with records from 195 tetrads (20%), more than the 10-year average of 177 and spread evenly throughout the year. Inland and urban sites were well documented including Gatwick Airport, the American Express Community Stadium (Brighton) and successful breeding at two castles and occupation of a monastery. There were also 27 records of birds perched on pylons, some of which may relate to breeding birds. Several young were reported having fledged from inland quarries, along with further reports of success along the sea cliffs too, where two young females were seen hunting together behind Belle Tout (Beachy Head) in July.

During the breeding season 417 records were submitted between 1 Apr and 30 Jun and they document sightings within 22 known territories. At least eight further territories are known to have been occupied, taking the total to a minimum of 30 for the year. Several other regularly used areas were not checked. At Pulborough Brooks 14% of the sightings were in the breeding period showing the importance of the reserve at this time of year.

The Sussex Heights nest box in Brighton was occupied by a pair during the breeding season but they failed to breed. The nest box at Chichester Cathedral was more successful, with four eggs being laid between 28 Mar and 4 Apr. Three chicks hatched between 6 and 7 May but the fourth egg failed to hatch. They were ringed on 27 May. All three young falcons, two males and one female, fledged between 17 and 23 Jun.

Between 1 Oct and 31 Dec regular sightings at two important reserves accounted for 43% of all records, Pulborough Brooks (33%) and Pagham Hbr (10%), illustrating the importance of these feeding areas in winter.

Reported prey species were Feral Pigeon, Stock Dove, Lapwing, Dunlin, Black-headed Gull, Little Egret, Redwing and Song Thrush. [J Franklin]



Peregrine, Chichester, 22 July (Bob Brewer)

Ring-necked Parakeet

Psittacula krameri ●

Scarce introduced resident; has bred.

There was a further increase in sightings from previous years with over 50 records from 34 tetrads. All were of one or two birds except for five at Ifield MP on 14 Dec. Sightings were received in every month of the year and as usual, mainly from coastal towns in West Sussex and larger conurbations such as Horsham, Crawley and Gatwick. There was one observation of a bird mobbing a Grey Heron at Poling on 22 Aug. [AH Podmore]

Red-backed Shrike

Lanius collurio ●

Very scarce passage migrant; formerly a breeding summer visitor. Red listed species of high conservation concern. Schedule 1 species.

There were five accepted records in 2021: a male at Broad Oak Park (Bexhill-on-Sea) on 29 May (C Dee), a male on Steyning Levels on 3 Jun (AM Holden), a female photographed at Iford Brooks on 1 Jul (BR Cox), a juvenile at the North Wall (Pagham Hbr) from 5 to 12 Sep (O Mitchell *et al.*) and another juvenile at the Little Deep (Thorney Island) on 22 Sep (CB Collins). The county total this century moves on to 56 with records in all but five years. The last blank year was 2014. [P James]



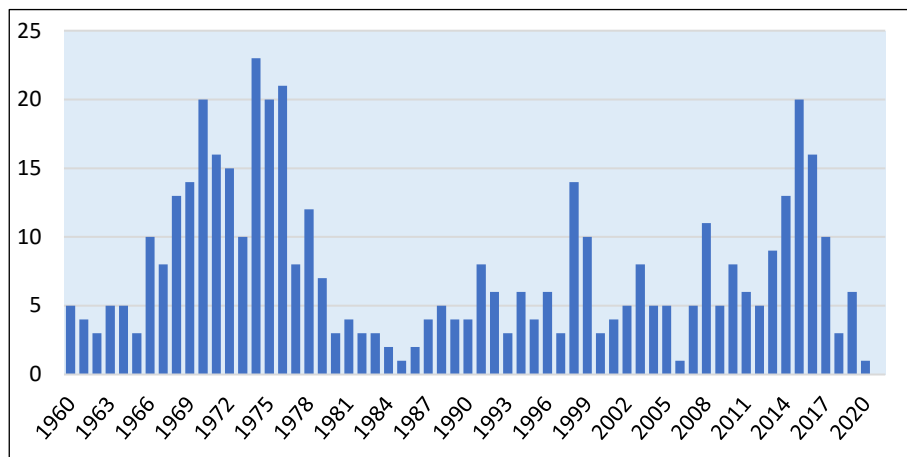
Red-backed Shrike, Pagham Hbr, 9 September (Dorian Mason)

[Great Grey Shrike

Lanius excubitor]

Very scarce winter visitor and passage migrant.

After just one recorded in 2020 there were no records for this species this year; the first year without a Great Grey Shrike being recorded since 1957. Their occurrence in the county is cyclical as demonstrated in the following figure showing the approximate number recorded in each year since 1960.



[JA Newnham]

Golden Oriole

Oriolus oriolus

Rare passage migrant and summer visitor; may have bred in 1965. Schedule 1 species.

2021 was another very good year for this spring overshoot with five recorded. The first, an adult male at The Severals (Church Norton) on 9 and 10 May (A House, L & P Hunter *et al.*), was followed by a female/first summer male at Beachy Head on 19 May (ME & RH Charlwood), a female/first summer male at Ringmer on 1 Jun (J Grover), a singing male at West Wittering on 15 Jun (G Michelmores) and a female/first summer male at Cissbury on 19 Jun (DK Campbell). The county total this century moves on to 44 with records in all but four years. The last blank year was 2005. [P James]

Jay

Garrulus glandarius

Very common resident.

Jays were recorded in 585 (61%) tetrads, considerably more than the 10-year average of 479 tetrads. During the GBW they were recorded in 192 (54%) of 355 participating gardens. In January and February, the SWBS recorded a total of 93 in 47 (39%) of the squares surveyed.

The BBS found 149 in 66 (37%) of the squares surveyed with a maximum of six at both West Lavington (Midhurst) on 20 Apr and at Ifold on 28 Apr. Breeding was confirmed in five tetrads and was probable in a further 30. Singing males were found at Hanlye (Cuckfield) on 24 Apr and Varncombe Hill (Brighton) on 23 Jun. Nest building was observed on 2 Apr at Milton Mount Park (Crawley). Family parties were seen at Pulborough Brooks (six on 7 Jun and five on 20 Jun), Crawley (five on 26 Jun), Rye Fm (Henfield) (four on 26 Jun) and Angmering (six on 19 Jul). Further breeding evidence would be welcome for this very common species. During the summer



Jay in Magnolia, by Jan Wilczur

period, additional high counts included 26 at Christ's Hospital (Horsham) on 13 Jul, nine at the Knepp Estate on 25 Jun and seven at Worth Forest on 11 Aug.

In September and October, notable counts included: 31 (27 SW and 4E) at Cadborough (Rye) in under one hour including a flock of 13; 21 at both Hastings CP on 27 Oct and at Pett Level on 28 Oct; 20 at Whitbread Hollow (Beachy Head) on 14 Oct; and a flock of 17 at Paddockhurst (Worth) on 19 Sep. In the second winter period, the highest count was one of 14 at Weir Wood Res on 6 Dec. The second winter period SWBS recorded a total of 132 in 49% of the squares surveyed, with a maximum of six at West Lavington on 14 Nov. [M Orchard-Webb]

Magpie

Pica pica 

Very common resident.

Magpies were recorded in 714 (74%) tetrads, similar to the 716 in 2020 and greater than the 10-year average of 631. During the GBW Magpies were recorded in 334 (94%) of the Sussex gardens surveyed during the year.

In the first winter period, the highest counts were 52 at a Bishopstone roost on 24 Jan, 45 at East Kingston (Ferring) on 22 Mar and 40 at both Sandgate Park (Storrington) on 11 Jan and Lewes Railway Land LNR on 19 Jan. Additionally, there were 29 counts of 20 or more. During the first winter period SWBS survey there were 634 encounters in 110 (92%) of the squares surveyed including 24 at Hurstpierpoint on 5 Feb.

Between 5 Apr and 5 Jul Magpies were recorded during the BBS in 158 (89%) surveyed squares with a maximum count of 20 on 30 May at Southwick. Breeding was confirmed in 23 tetrads and probable in a further 58. Nest building was first recorded at Southwater on 2 Feb, at Newhaven on 6 Feb, at Newhaven Tide Mills on 11 Feb and at Chesworth Fm (Horsham) on 21 Feb. The first occupied nest was found at Milton Mount Park (Crawley) on 11 Apr and the first fledglings were seen at Thorney Deepes on 25 May and at Combe Valley CP on 26 May. The highest count during the period April to September was 43 at Christ's Hospital (Horsham) on 22 Aug.

During September and October, there were 20 counts of 20 or more. The highest counts were 65 at Filsham LNR and 45 at Selsey Bill, both on 13 Oct. The late winter period saw 13 counts of 20 or more, the highest of which was 35 at Combe Valley CP on 8 Nov. There were 25 counted at a roost at Warnham LNR on 29 Dec. The late year SWBS recorded 687 encounters in 140 (89%) squares surveyed with a maximum count of 22 on 20 Dec at Mount Pleasant (Woodingdean). [M Orchard-Webb]

Jackdaw

Coloeus monedula 

Very common resident.

Jackdaws were recorded in 699 (73%) tetrads, equal to that in 2020. Notable sized clatterings recorded during the first winter period included: a pre-roost gathering of 1300 in trees near St Peter's Church, Upper Beeding on 2 Jan, 750 in the same area on the previous day; 600 at Beeding Hill on 29 Jan; 560 on 22 Jan at High Cross Fm (Uckfield), and additional counts of 500 at Arlington Res on 3 Jan and at Botolphs (Bramber) on 10 Jan.

During the early year SWBS 1853 Jackdaws were recorded in 99 (83%) of the 1-km squares surveyed, with a maximum count of 122 at Petworth Park on 5 Feb. In the BGBW the species was recorded in 17% of the participating gardens in West Sussex compared to 27% in East Sussex. In the GBW Jackdaws were recorded in 217 (61%) of the gardens surveyed during the year.

During the BBS, 4628 were encountered in 150 (85%) of the squares surveyed, with a maximum of 197 at Petworth Park on 19 Apr. Breeding was confirmed in 24 tetrads, with evidence of probable

breeding in a further 69 tetrads. The first record of an occupied nest was at Lavington Common on 25 Mar, and the first reports of fledged young came from West Marden and Ladywell (Coombes) on 31 May.

The highest counts of the summer period were 800 at Glynde on 10 Jul, 500 at Arlington Res on 7 Aug, and 300 at Burgess Hill on 3 Aug, at Waltham Brooks on 4 Aug and at Kingley Vale on 12 Aug. There were 23 further records of 100 or more birds at various locations.

In autumn, the highest count by far was at Sheepcote Valley (Brighton) on 8 Oct where 1100 flew west; there were 290 at Crawley on 24 Oct, and 250 at Lidsey WTW on 18 Oct. During the second winter period there were high counts of 1000 from the area surrounding Lodge Hill Fm (West Dean) on 28 Nov, and 600 at Rackham Woods on 18 Nov and at Rye Fm (Henfield) on 31 Dec. There were 43 more records of 100 or more birds during this period. During the November and December SWBS 2901 Jackdaws were recorded in 130 (83%) of the squares surveyed, with a maximum of 267 at Wilbees Fm (Arlington) on 17 Dec. [G Osbourne]



Rook, Barcombe, 24 March (Simon Linington)

Rook

Corvus frugilegus 

Very common resident. Amber listed species of medium conservation concern.

Rooks were recorded in 520 (53%) tetrads compared with 484 in 2020. During the first winter period the highest counts were at Arlington Res, with 600 on 3 Jan, 450 on 1 Jan, 400 on 16 Jan and 250 on 22 Feb. Elsewhere there were 400 at Beeding Hill on 12 Feb and 260 at Iford Brooks on 17 Jan. At three other sites 200 or more birds were recorded. During the early year SWBS 1102 were found in 52 (44%) of the squares surveyed, the maximum count of 177 being recorded at Glynde Level on 18 Feb.

Breeding was confirmed in 80 tetrads and was recorded as probable in a further 24 tetrads. Signs of nest building were first observed on 11 Jan at Barcombe Cross, although there was no subsequent breeding at this site. Nest building was also recorded on 15 Jan at Forestside (West Marden) where a rookery of 20 nests was established in roadside trees. The first occupied nests were seen at Pulborough Brooks on 6 Mar. The earliest report of a nest with young came from Barnham on 14 Apr and the first record of fledged young was at Medmerly on 16 Apr.

During the BBS 4325 Rooks were encountered in 94 (53%) of the squares surveyed, with the highest count of 249 at Racton on 1 Jun. In the GBW Rooks were encountered in 25% of participating gardens. A minimum of 79 rookeries held in excess of 2200 nests; the largest were 205 AON at East Ashling, 130 AON at Westdean (Friston Forest), 120 AON at Edburton and 113 at Mid Lavant.

During July and August the highest count was 550 at Beeding Hill on 25 Aug, and there were three counts of 300: at Charleston Bottom (Friston) on 28 Jul, Cissbury on 31 Jul and Castle Hill (Falmer) on 29 Aug.

During September and October 450 were recorded at Truleigh Hill on 3 Oct, 300 at Beeding Hill on 17 Sep, 250 at Goodwood Aerodrome on 19 Sep with seven additional counts of 100 or more at various sites. During November and December there were 500 at Arlington Res on 26 Nov and 350 on the 20th with 28 more gatherings of 100. During the late year SWBS 2426 Rooks were found in 78 (50%) of the squares surveyed, the maximum being 430 at Funtington on 30 Dec. [G Osbourne]

Carrión Crow

Corvus corone 

Very common resident.

Carrión Crows were recorded in 754 (78%) tetrads compared to 748 in 2020. During the first quarter there were just three records of 100 or more, the highest count being 160 at Eartham Folly on 14 Mar. There were 150 at Angmering on 8 Feb and 100 at Combe Valley CP on 14 Mar. A further 25 counts of 50 or more came from 22 locations. During the early year SWBS there were 1273 encounters in 118 (99%) of the 1-km squares surveyed, with a maximum of 69 at Southwick on 31 Jan. The species was recorded in approximately 25% of BGBW participating gardens in West and East Sussex, and in 251 (71%) surveyed gardens in the GBW.

In the BBS there were 3597 encounters in 174 (98%) of the squares surveyed, with a maximum count of 209 at Guildenhurst (Billingshurst) on 19 Jun. Breeding was confirmed in 50 tetrads and probable in a further 60 tetrads. Nest building was first observed on 7 Mar at Horsham, whilst the first occupied nest was reported on 21 Mar at Lewes. The earliest record of fledged young was from Bognor Regis on 18 May. The largest gatherings between April and July were the BBS maximum of 209 at Guildenhurst on 19 Jun, 200 at Allington Fm (Cooksbridge) on 19 Jul, 112 at Round Hill (West Firle) on 13 Apr, and 94 at the same location on 26 Jun.

Between August and October the largest counts were 220 on the foreshore at Dell Quay (Chichester) on 17 Aug and 200 at Combe Valley CP on 13 Oct. During the second winter period 270 were at Goring Gap on 15 Nov and 220 at Ashfold (Handcross) on 5 Dec. During the late year SWBS 1670 were found in 151 (96%) of the squares surveyed, with a maximum of 94 at Chelwood Common (Danehill) on 16 Nov. [G Osbourne]

Hooded Crow

Corvus cornix 

Rare winter visitor and passage migrant.

The only record was of one at Polegate from 13 Jul into 2022 (N Povey *et al.*). It frequented Polegate Services and could often be found perched in a large tree next to McDonalds! The county total this century moves on to 12. [P James]



Hooded Crow, Polegate, 12 December (Gary Faulkner)

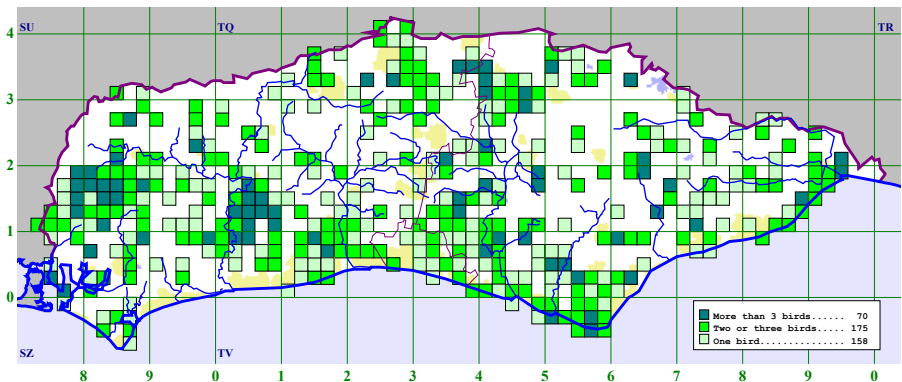
Raven

Corvus corax



Fairly common breeding resident; first bred in modern era in 2001.

Ravens were recorded in 403 tetrads (41%), the highest number ever and much greater than the 10-year average of 252 (range 167 to 381). Its remarkable recolonisation in the past two decades means that birds are now distributed throughout Sussex as shown in the following map.



During the breeding season, records were received from 207 sites in February, 272 sites in March and 273 in April indicating the breeding population in Sussex could be as high as 200 pairs. All records are welcome but especially useful are territorial, display, breeding success and, at other seasons, roost counts.

Display was widely noted in February and March and the first fledged young were seen on the Knepp Estate on 28 May. Breeding was confirmed in 12 tetrads and was probable in a further 18, a similar number to 2020 but an increase from the eight confirmed breeding and 17 probable breeding reports in 2019. Pylons were the most commonly reported nest site (more than half of the confirmed breeding records), with coastal cliff and tall conifers also recorded. Interactions with Buzzard, Carrion Crow, Peregrine and Red Kite were noted and one was seen harassing the Kittiwakes at Splash Point (Seaford) on 28 May. Ravens were seen in every month of the year at The Burgh (Burpham), Pulborough Brooks, Weir Wood Res, Ashdown Forest including Old Lodge LNR and the lower Cuckmere Valley.

A bird associated with rural environments, one perched on St Botolph's Church spire in West Worthing at dawn on 6 Feb was notable for its urban setting.

Gatherings in winter included 28 counts of ten or more throughout the year with The Burgh accounting for eight of those and the highest count there was of 40 on 23 Mar. Other high counts were 30 at Wadhurst on 5 Dec and 22 at Kithurst Hill (Storrington) on 1 Apr. Thirteen at East Guldeford Level on 4 Nov were gathered around sheep pens, probably attracted by carrion. [D Brothwell]

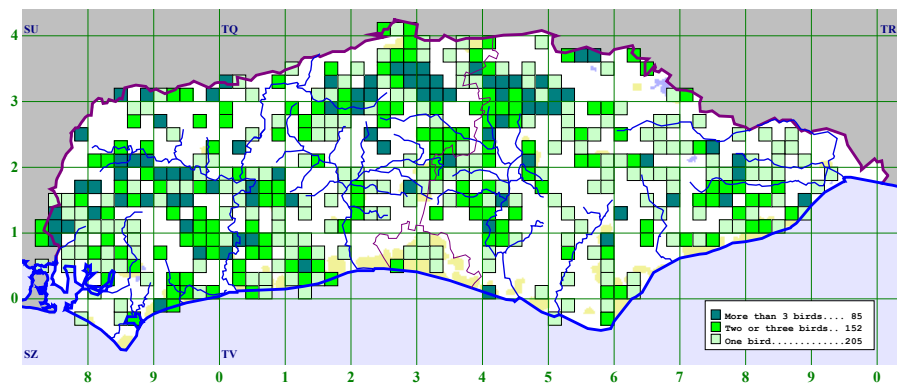
Coal Tit

Periparus ater



Very common resident.

Coal Tits were reported from 442 tetrads (45%) during 2021, fewer than in 2020 (467 tetrads), but more than the 10-year average of 397 tetrads. Records were distributed widely across the county, with concentrations in the western Weald and Ashdown Forest as shown in the following map.



Breeding was confirmed in nine tetrads, a decrease on both 2020 (18) and the 10-year average (20). However, probable and possible breeding counts were respectively the second and third highest recorded this decade, indicating that breeding success was under-recorded, rather than poor.

The early year SWBS found Coal Tits in 33 squares (28%) with a peak count of eight on 5 Feb at West Lavington (Midhurst). The same site yielded nine on 20 Apr, which, jointly with 11 Apr at Holme Fm (Stansted), proved to be the maximum count during the BBS. This survey recorded birds in 52 squares (29%).

30 Mar marked the year's first instance of nest building, at Arlington Res, but it was not until 21 May that a nest with young was seen, at Ashdown Forest. The first fledglings of the year were observed at Wivelsfield on 1 Jun, with further juveniles later seen at Balcombe on 19 Jun, Ashdown Forest on 26 Jun, Pulborough Brooks on 13 Jul, the Waterwoods (Arundel) on 16 Jul, West Tarring (Worthing) on 18 Jul, and Worth Forest on 8 Aug.

The late year SWBS returned lower numbers than its earlier counterpart; 29 squares (19%) were occupied, with a maximum count of ten at Nutley on 21 Dec. Birds were recorded in 63% of gardens surveyed during the GBW, almost matching the 64% return of 2020.

There were no records of the continental race *P. a. ater* in 2021, after single birds in 2020 and 2019. [A Glossop]

Marsh Tit

Poecile palustris 

Very common resident. Red listed species of high conservation concern. Section 41.

Marsh Tits were recorded in 273 tetrads (28%), the highest number recorded and well above the 10-year average of 205 (range 150 to 262). Most records were from the Wealden woods. Coastal records were few but there were records from Fairlight and Cliff End (Pett) in four months. During the early year SWBS they were found in 14% of squares surveyed with a maximum of five at Hellingly on 20 Feb and in 12% of participating gardens during the GBW. The highest counts during the first winter period were 17 and 16 at East Marden on 25 Feb and 15 Mar and 11 at Upwaltham on 9 Mar, during the SOS Marsh Tit survey; full details of this survey are on pages 253-258 of this report.

Breeding was confirmed in 12 tetrads and probable in a further 51. During the breeding season the species was found in 191 locations (169 in 2020 and 113 in 2019). Note that the survey gives a far higher estimate for the Sussex breeding population. The first songster was heard on 5 Feb at Stansted Forest, nest building seen on 1 Apr at Pippingford Park (Ashdown Forest), food or faecal sac carrying on 5 May at Beckley Woods and the first fledged young observed on 2 Jun at Bignor Hill (Pulborough). During the BBS they were encountered in 9.6% of squares surveyed with a maximum of six at on 19 Jun at Roundstreet Common (Loxwood).

Most post breeding records were of only one or two but 20 were seen at Cripps Corner (Robertsbridge) on 21 Aug, the highest count of the year. Ten was the highest count during the autumn and second winter period, at Eartham Woods on 14 Dec, followed by eight at Westdean Woods on 25 Nov. During the late year SWBS they were found in 9.6% of squares surveyed with a maximum of six at Steyning Round Hill on 15 Dec. [MJ Chattaway]

Blue Tit

Cyanistes caeruleus 

Abundant resident.

Blue Tits were recorded in 768 tetrads (78%) compared with a 10-year average of 664 (range 583 to 760). During the first winter SWBS they were encountered in 96% of the squares surveyed. During the BGBW they were recorded in 74% of participating gardens in West Sussex and in 73% in East Sussex and in 99% of surveyed gardens in the GBW.

The earliest sign of breeding activity was in Bognor Regis on 20 Feb when one was seen emerging from a sparrow nest box previously used by Blue Tits. Nest building was noted in Steyning on 7 Mar. The carrying of food or faecal sac was noted at Itchingfield (Horsham) on 14 Apr and the first fledged young were recorded at the Knepp Estate on 23 Apr. During the BBS Blue Tits were found in 95% of the 177 squares surveyed. During the second winter period SWBS they were encountered in 91% of the squares surveyed. [M Mallalieu]

Great Tit

Parus major 

Abundant resident.

Great Tits were recorded in 735 tetrads (75%) compared with a 10-year average of 647 (range 560 to 746). During the first winter SWBS they were encountered in 92% of the squares surveyed.

During the BGBW they were recorded in 50% of participating gardens in West Sussex and in 48% in East Sussex and in 91% of surveyed gardens in the GBW.

The earliest signs of breeding activity were nest building at Warnham LNR on 30 Mar and at Worthing on 31 Mar. Nest building was still being recorded on 7 May, at Henfield. The carrying of food or faecal sacs was first noted at Arlington Res on 4 May and the first fledged young were seen on 22 May at Bognor Regis, the Knepp Estate and Worthing. During the BBS Great Tits were found in 94% of the 177 squares surveyed. During the second winter period SWBS they were encountered in 78% of the squares surveyed. [M Mallalieu]



Bearded Tit, West Rise Marsh, 2 January (Chris Gape)

Bearded Tit

Panurus biarmicus ●

Scarce breeding resident; very scarce passage migrant and winter visitor. Schedule 1 species.

Most records were from East Sussex where Bearded Tits were found in every month of the year at Pett Level and in 11 months at Rye Hbr. In West Sussex they were found in ten months at Thorney Island and Deepes. The highest monthly counts outside of the breeding season from the six locations where they were recorded are shown in the following table:

	Jan	Feb	Mar		Aug	Sep	Oct	Nov	Dec
Thorney Island and Deeps	3	1	-		4	15	20	6	4
Pagham Hbr	-	-	-		-	-	-	1	-
Arundel WWT	-	-	-		-	-	-	-	2
Eastbourne Lakes	8	6	11		-	-	-	1	-
Pett Level	6	2	11		2	3	5	4	2
Rye Hbr	-	-	5		2	1	20	5	1

Breeding was confirmed at three locations; at Thorney Deeps adults were observed carrying food and fledged young seen, at Pett Level there were eight pairs and fledged young seen and at Rye Hbr there were at least four pairs and juveniles recorded. One at Sompting Brooks on 20 May was the only breeding season record away from the previously mentioned sites. "High flying" was reported from Thorney Deeps on two dates, 22 Sep and on 6 Oct when six flew NW. [MJ Chattaway]

Woodlark

Lullula arborea 

Scarce resident and very scarce passage migrant. Schedule 1 species. Section 41.

Woodlarks were recorded in 84 tetrads (8.5%), more than the 10-year average of 59. In the first winter period the largest flocks were 27 in a stubble field at Hartfield on 26 Jan and 16 at Rushlake Green on 12 Feb.

Breeding was confirmed in five tetrads, was probable in a further 28 and possible in 17. During the WHBBS, 49 territories were identified, which is fractionally down from the 50 recorded the previous year; Iping Common had most territories with ten, with nine and eight at Ambersham & Heyshott Common and Black Down respectively. It was good to have a territory back at Lynchmere and Stanley Common, although worryingly, only two territories were found at Woolbeding Common, down from 14 recorded in 2020. Elsewhere breeding was confirmed at Wiggonholt Common, Ashdown Forest and Broadwater Warren. Singing males were first heard at Pulborough Brooks on 28 Jan, and during the following few weeks, birds were heard at their traditional sites throughout Sussex and the first fledged young were seen at Old Lodge LNR (Ashdown Forest) on 7 May.

Breeding in non-heathland habitats is becoming more frequent with, for example, five territories in the Worth area in fields of old maize stubbles, oil seed rape, broad beans and wheat, and one pair at Pulborough Brooks nesting in rough grassland.

In October, individuals flew over Selsey Bill on the 3rd, 4th and 9th, Fairlight on the 11th and Beachy Head on the 21st, although it was in November when passage increased, with maximum site totals of five over Brighton, four at Selsey Bill and Cuckmere Haven and two at Beachy Head. During the second winter period, the largest flocks comprised 13 at Hartfield on 2 Dec and seven at Pulborough Brooks on 11 Nov. [MR Eade]

Skylark

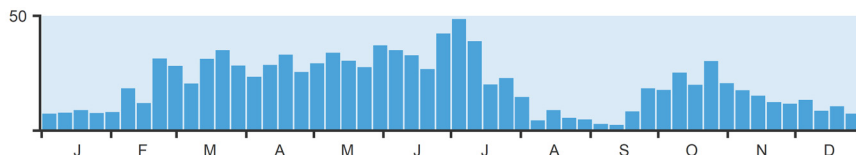
Alauda arvensis 

Very common but declining resident; probably common passage migrant and winter visitor. Red listed species of high conservation concern. Section 41.

Skylarks were recorded in 441 tetrads (43%), compared to the 10-year average of 365. Although widespread in the first winter period only a few large flocks were seen. Up to 200 were at Thorney Island on 25 Jan, 120 at Steep Down (Lancing) on the 22nd and 100 at Rodmell on 21 Feb were the only three-figure counts in this period. The highest count in March was 60 on downland in the Steyning area on the 24th followed by 45 at Rye Hbr on the 5th. During the SWBS they were found in 33% of squares surveyed with a maximum of 59 at Woodingdean on 17 Jan.

Proof of breeding is difficult with this species and was confirmed in only six tetrads and probable in a further 74. Singing males were noted from the end of January, a nest with eggs was seen on 14 Apr at Thorney Island and a bird with food or faecal sac was observed the next day at East Head. The first fledged young were reported on 12 Jun at Medmerry. During the BBS Skylarks were encountered in 55% of squares surveyed with a maximum of 48 at Edburton on 23 Apr.

There were 33 in the Chanctonbury/Cissbury area on 7 Jul and 30 at Cuckmere Haven on the 15th but most records in July were in single figures. Records were few in August and September reflecting the BTO's Birdtrack weekly reporting rate for Skylarks in Sussex as shown below.



It was not until October that 40 were seen at Newhaven Tide Mills and Rye Hbr, both on the 9th, then 72 at Steyning Roundhill on the 14th and 60 at Ditchling Beacon on the 16th.

The highest count in the second winter period was 120 at Findon on 8 Nov, followed by 76 at East Guldeford Level on 9 Dec with 38 further counts of 20 and above. During the late year SWBS Skylarks were found in 21% of squares surveyed with a maximum of 15 at Ashcombe Bottom (Lewes) on 10 Nov. [T Seabrook, MJ Chattaway]



Skylark, Beeding Hill, 28 June (Gary Faulkner)

Shore Lark

Eremophila alpestris 

Rare autumn migrant and winter visitor. Amber listed species of medium conservation concern. Schedule 1 species.

The individual found at Flat Beach (Rye Hbr) in November 2020 remained until 21 Mar. One photographed at Sovereign Hbr (Eastbourne) on 7 Nov (KB Gillam) was relocated at Pevensey Bay on 10 Dec (GRF James *et al.*) where it remained into 2022. Although sometimes elusive along the busy stretch of beach it favoured, it was confiding at times and was seen and photographed by many observers during its extended stay. The county total moves on to 107 since 1948, only 13 of which have occurred this century. [P James]

Short-toed Lark

Calandrella brachydactyla 

Rare vagrant.

One seen and photographed at Climping Gap in a field adjacent to the beach to the east of Bread Lane on 16 Sep (B Akinola *et al.*) was the first county record since one at Newhaven Tide Mills on 10 May 2008. The county total moves on to 13 with records in April (two together in 1951), May (1994 & 2008), June (1991), July (1888), September (the second British record in 1854), October (four together in 1972) and November (1909). [P James]

Sand Martin

Riparia riparia 

Scarce or fairly common summer visitor and very common passage migrant.

Sand Martins were found in 118 tetrads, the highest number ever, compared to the 10-year average of 89. The first returning bird was at Weir Wood Res on 27 Feb; this is the joint earliest recorded (with 2009). There were five records of birds returning earlier than the 10-year average of 11 Mar, notable among these were two together at Chichester GP on 5 and 6 Mar and three at West Rise Marsh (Eastbourne) on the 8th.

Inbound migration increased in April with 100 at Pulborough Brooks on the 1st, rising to 200 the next day. Rye Hbr held 200 birds on 2 Apr and 120 were at Burton MP on the 5th. The last high counts of the spring were on 8 May when 170 were at Pulborough Brooks and 200 at Chichester GP, a late date for a large gathering at this location.

Breeding was only confirmed at three sites this year. Nesting was first observed at Storrington on 4 May, then at Arundel WWT on the 22nd. Four were seen entering previously used holes at Rock Common (Washington) on the 27th, rising to eight occupied by 8 Jun; however no fledglings were recorded anywhere in Sussex this year.

Birds were preparing for their return migration from mid-summer onwards with double-figure counts noted at various coastal sites including 80 at Pett Level on 8 Jul and 200 at Pagham Hbr on 1 Aug. The first four-figure count of the year was of 1000 massing at Arlington Res on 9 Aug whilst at Medmerry, 1000 were recorded on the 28th and 2000 on the 30th, considered to be the minimum number present there.

Peak counts during September were in the first half of the month with 500 at Medmerry on the 1st and 11th, 500 at East Guldeford Levels on the 12th and 400 at Arlington Res on the 11th. By the end of September, outward migration had all but finished with records on just seven dates in October, with six at Rye Hbr on the 6th, one in the upper Cuckmere Valley on the 7th and one at Pagham Hbr on the 9th being the last birds of the year, earlier than the 10-year average last date of 25 Oct. [BGR Ives]

Barn Swallow

Hirundo rustica 

Common summer visitor and abundant passage migrant.

Barn Swallows were recorded in 524 tetrads, more than the 10-year average of 482 (range 415 to 626). There were no January records in 2021 with the first returning migrants, a pair on 17 Feb at Hambrook (Chichester); they had, however, apparently been present for a week prior to this date. There was one at Cuckmere Haven on 3 Mar but the next record was not until the 26th with two at Chichester GP and thereafter they trickled in through to the end of the month. Numbers rose considerably in April with 290 at Rye Hbr on the 3rd and 200 at Porthole Fm (Sidlesham) on the 25th. A total of 413 were noted coming in off the sea at Selsey Bill in April with an overall total of 658 moving north there in the spring months.

Breeding was confirmed in only 16 tetrads and was probable or possible in a further 53. Early records include a pair seen prospecting a nest site at West Hoathly on 1 May whilst at Peacehaven sitting was noted on the 6th. The first fledglings were sighted at Wivelsfield on 24 Jun and on the same date at Elmer (Middleton-on-Sea) fledglings from two nests were noted. At the latter site it was considered as a poor breeding season by the observer with numbers of nests down and no second broods there. The last fledglings seen were three that flew the nest near Bury on 8 Sep.

Birds started to gather post-breeding at a number of sites in the autumn months and there were three-figure counts from locations such as Pulborough Brooks, the Knepp Estate and Beeding Hill. The highest inland count was 1000 over the water at Arlington Res on 11 Sep. The September migration total at Selsey Bill was 10,367 birds, comprising 7799 E and 2068 W with a maximum of 2016 E on the 17th. Also there in October, 766 were noted, the majority of which were heading west. In October the highest counts were 500 at Pulborough Brooks on the 2nd, 300 at Church Norton on the 6th, 250 at Uckfield the next day and 220 at Sheepcote Valley (Brighton) on the 8th.

Up to three were still being seen in November from mostly coastal sites but the only December records were of one or two birds at Sidlesham and Medmerry, at least one of which was still present on New Year's Day 2022. [BGR Ives]

House Martin

Delichon urbicum 

Common but declining summer visitor and abundant passage migrant. Red listed species of high conservation concern.

House Martins were recorded in 311 tetrads, close to the 10-year average of 315. As there is continued evidence of decline of this species observers are encouraged to submit all records, particularly if breeding evidence is obtained.

The first arrival was one at Crowborough on 15 Mar, earlier than the 10-year average first date of 22 Mar, followed by six at Selsey Bill on the 25th. The first double-figure count was 30 at Rye Hbr on 1 Apr but it wasn't until the 21st that this figure was matched by a similar count at Weir Wood Res, then 50 at Porthole Fm (Sidlesham) on the 25th, 200 at Bewl Water on the 28th and 100 at Pulborough Brooks the next day. In May there were only four counts of 100 or more from three locations, the highest being 300 at Porthole Fm on the 13th.

Confirmed breeding occurred in 14 tetrads and was probable in a further 16. One bird was at a nest site, an artificial nest cup, at Bury (Pulborough) on 14 Apr and was joined by another on the 17th and young were present on 3 Jun. The first fledged young were also seen there on 28 Jun. There were 25 occupied nests at The Warren (Eridge Green), the largest colony reported this year, but down from the 38 nests there in 2020. There were still young in a nest at Itchenor on 7 Sep.

In July there were regular counts in the 30s and 40s from various locations but 250 at Robertsbridge

on the 17th was unusual. In August the highest counts were 100 at Cripps Corner on the 21st and 120 at Wivelsfield on the 30th, probably indicative of migration, as was 30 flying south at Uckfield on the 17th. At Selsey Bill 15 on the 14th and 52 W on the 22nd were the first notable autumn movements there.

The largest numbers as usual occurred in mid-September when there were ten counts of 1000 or more, with peaks of 5000 at Pagham Hbr, 4554 W at Selsey Bill, 1200 at Medmerry and 1000 at Hastings, all on the 12th and 1500 at Beachy Head on the 16th. Another big day at Selsey Bill was 2100 in 2½ hr on the 20th, with the monthly total there being 9674 (including 1605 E and 7707 W) on 23 dates. Counts in October were much lower with no four-figure counts and only eight three-figure counts, the highest being 500 and 540 at Pulborough Brooks on the 1st and 5th respectively and 300 at Glynde Level on the 6th. In contrast to September's high monthly total at Selsey Bill, the total for October was only 42. The last double-figure count was 72 at Fairlight Glen on 12 Oct.

There were two records in November: four on the Knepp Estate on the 7th and one at Seaford on the 13th, ten days earlier than the 10-year average last date. [MJ Chattaway]



House Martins, Amberley, 1 May (Anne Hart)

Red-rumped Swallow

Cecropis daurica



Rare but increasing vagrant.

The only record of this now expected spring overshoot was of one feeding with other hirundines over West Rise Marsh (Eastbourne) on 3 and 4 Apr (A Redman *et al.*). It is the earliest spring record for Sussex, exceeding the previous earliest (17th April) by two weeks. First recorded in 1967, the county total moves on to 54, of which 20 have been in April, 30 in May and 36 this century. The last blank year was 2018 but there have been records in eight of the last nine years. [P James]

Cetti's Warbler

Cettia cetti 

Fairly common and increasing resident; passage migrant and winter visitor. Schedule 1 species.

This year the number of tetrads in which the species was recorded remained stable, with the total of 128 (13%) being just one more than in 2020, in habitats associated with rivers or streams. In the first winter period there were records from 40 broad locations, four more than the previous year, and the species was found in 3.3% squares in the early SWBS. Six were reported at Combe Valley CP on 22 Jan, five at Newhaven Tide Mills on 1 Feb and eight at Pett Level on the 21st. Later in February 12 were at Combe Valley CP on the 22nd. In March ten singing males were counted at Thorney Island and there was the same number of individuals at West Rise Marsh (Eastbourne).

During the BBS Cetti's Warblers were encountered in 10% of the squares surveyed, 2% more than in 2020, with a maximum count of 13 on 30 May in a square at Pevensey Levels. Combe Valley CP held 20 on 7 May, and 13 were detected on a breeding survey at Arundel WWT on 8 Jun. The breeding summary total for Pagham Hbr was of 20 singing males, with a further eight at Medmerry. Twenty singing males were present during the breeding season at Thorney Island, where young were heard calling on 26 Jun, while at Rye Hbr the count was 33 singing males. Breeding was confirmed in only two tetrads, but was probable in 18 and possible in a further 43.

Between March and December 24 different individuals were trapped at Charleston Reedbed, six of which had been ringed in previous years. At Pett Level 62 new birds were ringed. Both these figures were lower than in 2020. Nine new birds were ringed at The Mumbles (Steyning), of which five had been hatched during the year. The species was only encountered at this site for the first time in 2017 when a single bird was trapped.

In the late season SWBS the species was found in 2.5% of the squares visited, with a maximum of four on 16 Dec in a square at Hooe Level. Other records came from similar locations as in the rest of the year; 11 at Combe Valley CP on 2 Nov and eight at West Rise Marsh on the 11th being the highest counts during the final two months. [V P Bentley]

Long-tailed Tit

Aegithalos caudatus 

Very common resident.

Long-tailed Tits were recorded in 576 tetrads (58%) compared with a 10-year average of 526 (range 441 to 628). During the first winter SWBS they were encountered in 43% of the squares surveyed. During the BGBW they were recorded in 20% of participating gardens in West Sussex and in 18% in East Sussex and in 67% of participating gardens in the GBW. The highest counts during the first winter period were 28 on 2 Jan at Petworth Park and 25 on 12 Feb at Lewes Railway Land LNR with 81 further counts of ten and above.

The earliest signs of breeding activity were of a pair taking cat fur from a fence in Haywards Heath on 2 Mar and another at Binsted the next day also carrying nesting material. A nest with eggs in gorse was found at Lavington on 17 Mar and carrying of food or faecal sac was noted at Pulborough Brooks on 31 Mar where the first fledged young were seen on 4 May. During the BBS Long-tailed Tits were found in 46% of the 177 squares surveyed.

The highest post breeding count was 40 on the Knepp Estate; in the autumn it was 30 at Filsham LNR on 13 Oct and in the second winter period 35 at Gatwick Airport on 14 Dec with 91 further counts of ten and above in the second period. During the second winter period SWBS they were encountered in 41% of the squares surveyed. [M Mallalieu]



Long-tailed Tits, by Robert Greenhalf

Wood Warbler

Phylloscopus sibilatrix ●

Very scarce passage migrant. Rare in summer with no confirmed breeding records since 2010. Red listed species of high conservation concern. Section 41.

In spring there were two very early individuals, the first observed at Woodingdean on 4 Apr (R Muselle) and the second, singing in trees but not sighted, at Coldwaltham WTW on 7 Apr (CA Holter). The earliest previous county record was 7 Apr in 1985. There were no records during the breeding season.

In August two were again recorded. The first was at Greentrees SSSI (Balcombe), associating with a tit flock in silver birches, on the 14th (A Gray) and the second one trapped and ringed at Pett Level on the 16th (PE Jones). [TW Parmenter]

Yellow-browed Warbler*Phylloscopus inornatus* ●

Very scarce visitor, mostly in late autumn. Amber listed species of medium conservation concern.

Two overwintering Yellow-browed Warblers were found, at Hambrook (Chichester) on 25 Feb and a long-staying bird at Patching between 8 Mar and 19 Apr.

For the first year since 2001 there were no autumn records. [MR Eade]

Pallas's Leaf Warbler*Phylloscopus proregulus* ●

Rare visitor, mostly in late autumn.

There were two in 2021, the first at Chailey from 23 Jan to 10 Feb (TJ Stapleton) and the second at Beachy Head on 10 and 11 Nov (ME & RH Charlwood), the latter a typical date and location for this endearing species. The Chailey bird constitutes the first January and February record for Sussex though there is a March record (1992, Aldwick). The county total moves on to 106, of which 53 have been at Beachy Head and 44 this century. [P James]



Pallas's Leaf Warbler, Beachy Head, 10 November (Roger Charlwood)

Dusky Warbler

Phylloscopus fuscatus ●

Very rare vagrant.

One skulking in scrub at the base of the cliffs at Newhaven West Beach on 14 and 15 Nov (N Greenaway *et al.*) was initially identified as a Radde's Warbler *P. schwarzi*, but later confirmed as a Dusky. This is the 11th record for Sussex since the first in 1974 (18 Oct, Beachy Head). Previous arrival dates have been in January (1), October (6), November (2) and December (1). [P James]



Dusky Warbler, Newhaven, 15 November (Laurence Pitcher)

Willow Warbler

Phylloscopus trochilus ●

Common but declining summer visitor and passage migrant. Amber listed species of medium conservation concern.

Willow Warblers were recorded in 263 tetrads, compared to the 10-year average of 238. In March they were recorded from about 30 sites with the earliest being one at Bexhill on the 23rd. Most records were of singles but there were four at both Newhaven on the 29th, and Old Lodge LNR (Ashdown Forest) on the 30th, two at Shipley on the 28th and three at Hartfield on the 31st. April is the main month for passage and there was a steady trickle of single-figure counts in the first few days before 30 at Beachy Head on the 9th. At Old Lodge LNR numbers had increased to 15 by the 14th when 24 obvious incoming birds were counted at Birling Gap and then 24 on the 19th. The peak spring count at Beacon Hill LNR (Rottingdean) was 12 on the 20th when there were also 12 at North Wall (Pagham Hbr). On the 24th at Broadwater Warren 12 were counted. By the middle of May 18 were at Old Lodge LNR, a stronghold of breeding birds.

Breeding was confirmed in only two tetrads with probable breeding in a further 23. During the BBS Willow Warblers were encountered in 11% of squares surveyed with a maximum of 11 during both early and late surveys at Old Lodge LNR on 19 Apr and 6 Jun.

Returning migrants were evident at several sites from 20 Jul with seven at Cissbury on the 31st being the highest count of migrants in the month. At the beginning of August 15 were at Whitbread Hollow (Beachy Head) on the 2nd, 15 at Cissbury on the 10th and a good fall at Ladywell (Coombes) saw 79 birds trapped on the 14th. Twenty were counted at Cissbury on the 16th, ten at Shooters Bottom (Beachy Head) on the 17th and 35 were trapped at Charleston Reedbed and a further 20 were at Whitbread Hollow on the 18th. Similar figures continued through the rest of the month ending with 15 at Seaford Head on the 28th, 41 trapped at Charleston Reedbed on the 29th when there were also 25 at Haywards Heath, 14 at Ladywell, 13 at Beachy Head and 15 at Rye Hbr. Ringing totals for the year included 33 at The Mumbles (Steyning), 48 at Cissbury, 72 at Whitbread Hollow, 156 at Ladywell, 383 at Charleston Reedbed and 513 at Pett Level.

Numbers dwindled significantly in September with only two double-figure counts, ten at Cuckmere Haven on the 3rd and 11 at Beachy Head on the 4th. October started with four at Sidlesham Quay on the 1st but otherwise just one or two were recorded on ten dates. The last was one at Itchenor on the 22nd, two days earlier than the 10-year average last date. [TW Parmenter]

Chiffchaff

Phylloscopus collybita

Very common summer visitor and passage migrant; small numbers winter.

Chiffchaffs were recorded in 649 tetrads, the sixth consecutive annual increase in the county, mirroring what seems to be the current trend in short distance migrants. Birds were recorded widely in every month of the year. In the first winter period during January and February there were four reports of greater than ten at three sites, with maxima of 15 at Steyning and Coldwaltham WTW. By March numbers had increased substantially with more than ten reported at 12 sites peaking at 33 on the 29th at the Knepp Estate and 22 at Streat on the 31st. Through April double-figure counts were returned from 37 sites with a maximum of 25 at three sites.

Breeding was confirmed in 17 tetrads and probable in a further 55. Breeding survey counts revealed four pairs at Medmerry, 37 pairs at Pagham Hbr, 66 pairs at Broadwater Warren, seven pairs at Fore Wood (Crowhurst) and 12 territories at Rye Hbr. During the BBS the species was encountered in 86% of the squares surveyed with a maximum count of 24 on 12 Apr in a square near Nutley.

During the summer months there were peak counts of 22 at the Knepp Estate on 4 Jul and 50 at Lordship Wood (Cripps Corner) on 20 and 21 Aug. Emigration became more evident in September with Chiffchaff numbers increasing at coastal sites: 26 at Rye Hbr on the 13th, rising to 40 on the 17th, 60 at Glynde Level on the 15th, 95 at Beachy Head on the 16th, rising there from 250 on the 18th to 350 on the 21st and 300 on the 22nd. Elsewhere there were 50 at Cissbury on the 29th. Further large counts occurred in October especially at Beachy Head with 250 on the 7th, 150 on the 8th, 175 on the 10th and 100 on the 16th.

Thereafter numbers dwindled with double-figure counts in the last two months being at water treatment works; these being 15 at Lidsey Rife on 1 Dec and 20 there on the 15th and 10 at both Burpham and Coldwaltham on 26 Dec. [TW Parmenter]

Siberian Chiffchaff, *P. c. tristis*

The bird first recorded at Burpham WTW on 10 Dec 2020 was last seen on 23 Mar. Additional records for the early part of the year were of singles at Barcombe from 3 to 10 Jan (SH Linington) and Rye Hbr on 22 Jan (SJ Message) and 4 Feb (J Tomlinson) and two at West Rise Marsh (Eastbourne) from 5 Mar to 11 Apr (KB Gillam *et al.*). In the autumn/early winter there were singles trapped and ringed at Whitbread Hollow (Beachy Head) on 18 Sep (RDM Edgar) and seen at Hove on 12 Nov (CA Holt), Chichester GP from 11 Dec into 2022 (AP Bowley) and Lidsey WTW from 15 Dec into 2022 (O Mitchell). [P James]



Siberian Chiffchaff, West Rise Marsh, 7 March (Laurence Pitcher)

Sedge Warbler

Acrocephalus schoenobaenus 

Fairly common summer visitor and very common passage migrant. Amber listed species of medium conservation concern.

Sedge Warblers were recorded in 106 (11%) tetrads, slightly less than the 110 in 2020 but greater than the 10-year average of 91 (range 66 to 126). The first record was one at Pagham Hbr on 29 Mar, precisely on the 10-year mean arrival date, with two there and at Lidsey Rife (Barnham) on the 30th, and five at Pevensy Levels on the 31st. There followed a steady trickle of reports from coastal sites with nine at Rye Hbr on 4 Apr, 11 at Sidlesham Ferry on the 13th, ten at Combe Valley CP and five at the Ouse Estuary Project (Newhaven) on the 20th. Numbers at Rye Hbr rose to 20 by the 23rd and single figures were recorded at inland sites throughout the month. Of note were 20 counted in an early survey at New Bridge (Pevensy) on the 25th. In May, the month of the main arrival, 11 were counted at Amberley Wild Brooks and 27 at Rye Hbr on the 2nd with ten at Combe Valley CP the 7th.

Breeding was confirmed in six tetrads and probable in a further six, again less than in 2020. At Rye Hbr 49 territories were mapped, and birds were present but territories not counted at Amberley Wild Brooks and Pulborough Brooks. Up to five pairs were recorded breeding at Arundel WWT and breeding again took place in Charleston Reedbed. Eight pairs were recorded at Medmerry and 32 pairs at Pagham Hbr.

Autumn migration was first noted with singles at Whitbread Hollow (Beachy Head) on 2 Aug and Cissbury on the 3rd. Ringing totals for the year included 2558 at Pett Level, 16 at Whitbread Hollow, and 279 at Charleston Reedbed, where 36 were trapped on 12 Sep, a latish date for so many. Elsewhere there were no significant counts during this period of birds on passage. In October singles were recorded at Rye Hbr on the 3rd and Pett Level on the 9th and 14th. [TW Parmenter]

Blyth's Reed Warbler***Acrocephalus dumetorum*** ***Very rare vagrant.***

A strong candidate for one of the most unlikely records of 2021 goes to the singing male Blyth's Reed Warbler found in Pavilion Gardens, Brighton on 29 May (TJ Lincoln, TS Squire *et al.*) at a time when the gardens were thronged with people attending the Brighton Festival. Perhaps unsurprisingly, it was very elusive and became less vocal into the evening. There was no sign of it the following day.

This is only the 4th county record following on from others in 2011 (10 Jun, Pett Level), 2016 (17 to 19 Jun, Rye Hbr) and 2020 (16 Jun, Beachy Head) though the upsurge in records suggests that further occurrences are likely. [P James]

Reed Warbler***Acrocephalus scirpaceus*** ***Common summer visitor and very common passage migrant.***

Reed Warblers were recorded from 168 (17%) tetrads, a welcome increase from the 157 in 2020. The first of the year was at Thorney Deeps on 1 Apr, the earliest date on record for Sussex, followed by singles at Pett Level and Rye Hbr on the 2nd, and at Pagham Hbr on the 3rd. Thereafter there was a steady trickle of singles at various sites, building to three at Coombe Valley CP on the 13th, six at Southease on the 14th, with the first double-figure count (of 11) at Sompting (nr Worthing) on the 23rd, then at Lewes Railway Land LNR, Southease and Pagham Hbr on the 27th, peaking at Swanbourne Lake (Arundel) with 18 on the 30th.

Breeding was confirmed in nine tetrads and probable in a further 23. The first fledglings were observed at New Salts Fm (Lancing) on 1 May then reported more widely at other locations from the 9th. Counts of singing males elsewhere in May included 29 at Drayton House North Pit (Chichester GP) on the 1st, ten at Charleston Reedbed on the 6th, 19 at Glynde Level on the 9th, 26 at Lewes Brooks on the 13th, 39 at Beeding Brooks on the 16th and 20 at Ouse Estuary Project (Newhaven) on the 18th. Breeding surveys on reserves revealed 159 pairs at Rye Hbr, 62 pairs at Pagham Hbr, 14 pairs at Medmerry and 11 pairs at Lewes Brooks.

The first returning migrants were a single juvenile at Cissbury on 18 Jul, their earliest since 1989, thereafter: a single trapped at Whitbread Hollow (Beachy Head) on 2 Aug, nine there on the 4th and eight on the 12th; some of the 54 trapped at Charleston Reedbed on the 3rd would have been migrants; a single at Sheepcote Valley on the 14th and three trapped at Cissbury on the 22nd. Ringing totals included 1886 at Pett Level, 86 at Whitbread Hollow, 721 at Charleston Reedbed, 71 at Ladywell (nr Coombes), 74 at The Mumbles (Steyning).

Low counts were returned during the latter part of August and the whole of September. In October 18 birds were recorded, the last being one at Pett Level on the 18th, ten days earlier than the 10-year average last record. [TW Parmenter]

Marsh Warbler***Acrocephalus palustris*** ***Rare summer visitor and very scarce passage migrant. Red listed species of high conservation concern. Schedule 1 species. Section 41.***

There were three accepted records in 2021: a singing male at Whitbread Hollow (Beachy Head) on 30 May (KB Gillam, L Pitcher *et al.*), a singing male at an undisclosed location on 10 Jun (BR Cox, C Cogley) and one trapped and ringed at a different undisclosed location on 22 Jul (PE Jones). In addition, two singing males were reported in the county by an experienced observer; these records were not assessed by SOSRC. [P James]

Melodious Warbler

Hippolais polyglotta ●

Very scarce visitor in spring and autumn.

As in 2020 only one individual was reported, a smart spring male seen and heard singing by several observers just east of Horseshoe Plantation (Beachy Head) during the morning of 9 May (L Pitcher *et al.*), before becoming more elusive in the afternoon. The total recorded this century now stands at 24, of which all but six have been in the Beachy Head area, and at 75 records overall. [V P Bentley]



Melodious Warbler, Beachy Head, 9 May (Laurence Pitcher)

Grasshopper Warbler

Locustella naevia ●

Very scarce and declining summer visitor and fairly common passage migrant. Red listed species of high conservation concern. Section 41.

The species was recorded in only 17 (1.7%) tetrads this year, seven fewer than in 2020, with breeding probable in one, and possible in a second. By way of comparison, in 2011 records came from 30 tetrads with breeding probable in four and possible in a further seven. The first arrival was at Pagham Hbr on 3 Apr, six days earlier than both in 2020 and the 10-year average. It was not until the 13th that one was reported from East Sussex, a singing male at Seaford Head. There were singles at Weir Wood Res on 17 Apr, at Thakeham on the 28th and at Medmerry on the 30th. However the only consistent records during April, May and June came from the RSPB and SWT reserves in the Arun Valley, where there was a maximum of three singing males. In addition a lone bird was reported on Ashdown Forest on 16 Jun.

Migrants started moving through in mid-July, with the first noted at Pett Level on 21 Jul then at Charleston Reedbed the following day. Last year had seen the highest ringing totals for the species in Sussex since 2011, but at the three main East Sussex ringing sites in 2021 catches were mostly

lower than the previous two years (2020 and 2019 figures in brackets) with 355 (552, 291) ringed at Pett Level, 25 (28, 39) at Charleston Reedbed and 15 (19, 28) at Whitbread Hollow (Beachy Head). During August and September migrants were also noted at Climping, Steep Down (Lancing), Weir Wood Res and Seaford Head. The final two birds at Beachy Head were trapped on 22 Sep. Four were ringed at Pett Level in October, the final of these on the 9th, two days later than in 2020, and three days later than the 10-year average final date. [VP Bentley]

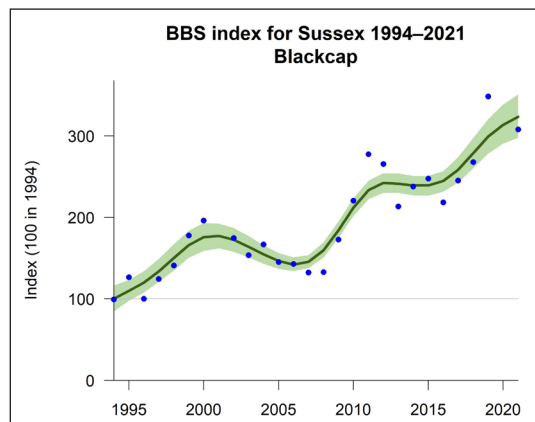
Blackcap

Sylvia atricapilla 

Very common summer visitor and passage migrant; scarce winter visitor.

Blackcaps were recorded in 618 tetrads (63%) during the year, an increase over 2020 and the 10-year average of 520. There were 11 reports of birds in gardens on New Year's Day, and in the first three months of the year birds were present in 39% of the 333 gardens taking part in the GBW compared with 28% (of 217) in the same quarter in 2020. Several participants mentioned they had seen the species in their gardens in winter for the first time. In a garden at West Tarring (Worthing) at least one bird was seen every week in January, rising to three at the start of March and a maximum of five on 23 Mar. As well as the usual food items taken, such as apples, sunflower hearts and fats, birds were also noted feeding on mealworms, porridge oats and on berries of *Callicarpa* (Beauty Berry) and Jasmine. However, they were recorded in just 2.5% of squares visited in the early year SWBS. From about 20 Mar the wintering population appeared to be leaving the gardens and summer visitors returned to the wider countryside.

During the BBS Blackcaps were recorded in 89% of the 177 squares visited, with a maximum of 20 at West Lavington on 20 Apr. In 2020 the percentage was 79% but that year only limited coverage during the early season visits was possible due to the COVID-19 pandemic. The BBS Sussex index (below) shows how well this species is doing in the county.



Breeding was confirmed in 18 tetrads but was probable or possible in a further 241, slightly lower figures than in 2020, despite the increase in the number of tetrads in which they were recorded. There were an estimated 14 territories in part of Westdean Woods, 37 pairs at Broadwater Warren, and 46 pairs at Pagham Hbr. The first fledged young were reported on 17 Jun at Greatham Bridge.

As usual, this is the most numerous species found by ringers in Sussex with 2596 ringed at Pett Level, 871 at Beachy Head RS and 653 at Charleston

Reedbed, though it was only at Beachy Head that they were found in greater numbers than in 2020. At peak migration time in September, conservative numbers at Beachy Head were 250 on the 12th, 16th and 18th, 300 on the 21st and 400 on the 22nd, reducing thereafter until the final sighting there on 5 Nov.

During the final quarter Blackcaps were recorded in 29 (12%) of the 236 gardens in the GBW, but there was only one encounter, of two birds, in the late year SWBS. One trapped and ringed at Ladywell (nr Coombes) on 12 Dec was only the fifth ringed in the valley between December and February. [VP Bentley]

Garden Warbler

Sylvia borin 

Common summer visitor and passage migrant.

The species was recorded in 189 tetrads in 2021, fewer than in 2019 and 2020 but still higher than in any year between 2012 and 2018. The first arrivals reported were two singing males at Carter's Lodge (Mannings Heath) on 6 Apr, three days earlier than in 2020 and one day earlier than the 10-year average first date. Five were noted at the Knepp Estate two days later, and the first East Sussex record was of an individual at Nutley on the 12th. A week later more started arriving, and five territories were found at Flexham Park (Fittleworth) on 1 May. Four days later five singing males were heard at Knowlands Wood (Barcombe), then eight territories noted at the same location on the 7th.

During the BBS Garden Warblers were found in 21% of the 177 squares surveyed, with a maximum of eight at Blackham on 12 Jun. Breeding was confirmed in five tetrads and was probable or possible in a further 75, very similar to figures from the previous two years. Breeding surveys at the county's reserves found ten pairs at Broadwater Warren, three pairs at Pagham Hbr, and they were noted as present at Pulborough Brooks. Twelve birds noted in c.15 km at the Knepp Estate on 13 Jun was the highest daily count there. The first evidence of successful breeding was at Knowlands Wood when an adult was observed feeding three very recently fledged young on 20 Jun, and a pair with young were seen at Newhaven on 24 Jul.

Migrants started to move through the county's ringing sites from July but not in great numbers; 230 birds were ringed at Pett Level, 27 at Beachy Head RS, 18 at Charleston Reedbed, 17 at Ladywell (nr Coombes) and 16 at The Mumbles (Steyning), with no significant difference in overall figures from previous years. Only a few were reported towards the end of September and there was one sighting in October, at Beachy Head on the 7th, four days later than in 2020 but six days earlier than the 10-year average last date. [VP Bentley]

Lesser Whitethroat

Curruca curruca 

Fairly common summer visitor and passage migrant.

Lesser Whitethroats were recorded in 167 tetrads, slightly fewer than the previous year but marginally greater than the 10-year average of 157 (range 129 to 214). The first report was of two at Rye Hbr on 11 Apr, one day later than in 2020 and three days earlier than the 10-year average first date. The first record from West Sussex came from Pulborough Brooks on the 16th. By the end of the month there were singing birds at many locations offering suitable habitat, with six at or near Woods Mill (Henfield) on the 25th and four at Rye Hbr on the 27th. During May there was a minimum of eight on the Knepp Estate on the 5th, rising to ten on the 11th.

During the BBS the species was encountered in 10% of the squares surveyed, very similar to the percentage in 2020, with a maximum of four on 11 Jun at Stonegate. There were 16 singing males counted during the breeding season at Rye Hbr and 20 pairs at Pagham Hbr, both sites seeing an increase over 2020 figures. A further three pairs were at Medmerry and seven at Thorney Island. Breeding was confirmed in only five tetrads, but was probable in 11 and possible in a further 58. The first report of fledged young came from Pulborough Brooks on 1 Jun and on the 26th a young bird was seen at Cissbury where a female with a brood patch had been trapped and ringed a week earlier.

During return passage the maximum seen at Beachy Head was 15 on the 28 Aug, the only count there that reached double figures and the Beachy Head Ringing Station reported a very poor autumn. However, at The Mumbles (Steyning) the total of 14 ringed birds, including 12 hatched in 2021, was the highest at this site this century. At Pett Level 53 different individuals were ringed, and 38 were trapped by Cuckmere Ringing Group. The last report from East Sussex was a single bird at

Rye Hbr on 3 Oct, and the final sighting of the year was one at Pagham Hbr on the 13th, four days earlier than in 2020 and the 10-year average departure date. [VP Bentley]

Eastern Lesser Whitethroat, *C. c. blythi*

One was trapped at Pett Level on 13 Nov (PE Jones). The identification was confirmed by DNA analysis carried at Aberdeen University by Dr Martin Collinson's team. This becomes the third confirmed county record. [M Mallalieu]



Common Whitethroats, Cuckmere Haven, 19 June (Chris Barfield)

Common Whitethroat

Curruca communis ●

Very common summer visitor and passage migrant. Amber listed species of medium conservation concern.

Whitethroats were recorded in 442 tetrads in 2021, 16 more than the previous year, and 83 more than in 2018. There were two individuals reported in March, one on the Knepp Estate on the 30th, five days earlier than in 2020 and the 10-year average first date, and another at Thorney Island the following day. Early April saw more arrivals and from the 9th they were fairly widespread, with five males heard in song at Medmerry on the 14th. In addition, 23 were at Newhaven Tide Mills on the 20th, 20 at Rye Hbr two days later rising to 30 by the 27th, and 18 at Broadwater Warren and Combe Valley CP on the 24th and 29th respectively.

During the BBS Whitethroats were encountered in 53% of the squares surveyed, down from 64% in 2020, with a maximum count of 17 on 19 Jun at Pagham Hbr. The highest count on the Knepp Estate was 57 in c.15 km on 13 Jun, most of which were singing males giving some impressive displays of mimicry. Seventy territories were mapped at Rye Hbr, only two fewer than in 2020. A

minimum of 45 singing males were present at Thorney Island during the breeding season, a similar number to the previous year. Among 25 birds seen at Medmerry on 14 Jun were three broods of recently fledged young but the first report of fledglings was from Pulborough Brooks on 8 Jun. Breeding was confirmed in 34 tetrads, with possible or probable breeding in a further 169. Fortunes differed at the county's ringing sites; at Pett Level 573 new birds was a significant increase over 316 in 2020, Cuckmere Ringing Group saw similar numbers to 2020, while Beachy Head Ringing Station totals were lower at only 49 (64 in 2020). Despite the good number of birds apparently around during the breeding season, autumn passage was quiet with maximum counts of 33 at New Erringham Fm (Shoreham) on 27 Aug, a meagre 20 at Beachy Head the same day, 30 at Seaford Head on the 28th, and 60 at Sheepcote Valley (Brighton) on 6 Sep.

Few lingered until October, but there were reports from six different sites until the 10th, with two in a garden at Runcton (Chichester) on the 3rd. The final record was in November, an individual at Climping Gap on the 3rd, six days earlier than in 2020 and four days later than the 10-year average departure date. [VP Bentley]

Dartford Warbler

Curruca undata



Scarce to fairly common but localised resident. Amber listed species of medium conservation concern. Schedule 1 species.

Dartford Warblers were recorded in 54 (5.4%) tetrads, indicating continued recovery of the Sussex population following the particularly cold weather in February and March 2018. A Dartford Warbler survey on Ashdown Forest was undertaken in 2021 and the findings of this survey are presented on pages 223-231 of this report.

Coastal sightings during January were of up to four at Medmerry and of single birds at Pagham Hbr, Shoreham beach and Beachy Head. Inland, heathland sightings were all of one or two at Ambersham, Iping, and Lavington Commons, Broadwater Warren and seven sites on Ashdown Forest. On the South Downs, singles were recorded at Steyning Round Hill and Cissbury in January and February, with a pair reported at the latter site on the 27 Feb. West Sussex heathland records in February included sightings of one or two at Ambersham Common and Black Down, and a pair at Lavington Common on the 26th. Reports from six sites on Ashdown Forest included sightings of pairs throughout the month at Pippingford Park, Old Lodge and Crow's Nest.

The annual WHBBS recorded 41 territories on heathland in West Sussex (see page 205), although the only evidence of breeding was a record of a juvenile on Lavington Common on 25 Aug. Five pairs were recorded in the RSPB breeding survey at Broadwater Warren, with a pair carrying food there in May. Three fledged young were observed being fed by adults at Beachy Head on 5 Jun, indicative of successful breeding. There were also reports in March and April consistent with probable breeding at Hastings CP.

There were numerous sightings on Ashdown Forest throughout September and October, three were recorded at Black Down on 3 Sep, and one at Cissbury on 25 Oct. In the autumn, sightings on or near the coast were mainly of one or two, at Medmerry, Pagham Hbr, Cuckmere Haven, Beachy Head, and Hastings CP. Three were recorded at West Chidham (Chichester Hbr) on 5 Sep.

During November and December, there were three at Black Down on 2 Nov and two at Stedham Common on 14 Dec and between one and three each from at least seventeen locations on Ashdown Forest in this period. Coastal reports were from Medmerry, Pagham Hbr, Beachy Head, Hastings CP, and Rye Hbr LNR. Most records were of singles, with three at Medmerry on 2 Nov and two on 19 Dec. The only other record during this period was of one at Cissbury on 17 Nov. [A Rowe]

Firecrest

Regulus ignicapilla ●

Fairly common breeding resident and summer visitor; passage migrant and winter visitor. Schedule 1 species.

Firecrests were recorded in 219 tetrads (22%), considerably more than the 10-year average of 164. During the first winter period, the largest counts comprised six at Eastbourne on 8 Jan, four at Arundel Watermeadows on 21 Feb and threes at Angmering, Wiggonholt Common, Rackham Plantation, Waldron, Sedlescombe and Brede High Woods.

The first migrant was an individual seen flying in off the sea at Elmer Rocks (Middleton-on-Sea) on 3 Mar and throughout March individuals were encountered at coastal locations, but no large counts were made. In spring the highest count was 17 at Stanley Common on 25 Apr with two pairs seen nest building there. There was a minimum of eight at Patching on 6 May and at least five territories at Brightling. Only one tetrad had confirmed breeding, with a further 19 having probable breeding. With a county breeding population likely to be in excess of 700 pairs (see paper in 2018 Sussex Bird Report), these records clearly bear no relation to the actual breeding numbers.

Autumn passage was poor, the highest counts being three at Cissbury on 17 Oct and three at Climping on 23 Nov. During the second winter period, four at Swanbourne Lake (Arundel) on 15 Dec was this period's highest number. [MR Eade]



Firecrest, Battle, 2 January (David Gardiner)

Goldcrest

Regulus regulus ●

Very common breeding resident; common passage migrant and winter visitor.

Goldcrests were recorded in 503 tetrads (51%), much the same as in 2020, compared with the 10-year average of 458 (range 336 to 573). They were encountered in 35% of squares surveyed in the early year SWBS, down from 42% in 2020 with a maximum of six at Boxgrove on 2 Feb. Double-figure counts made in the first winter period included 20 at Pulborough Brooks on 2 Jan, 12 at

Lewes on the 5th, 12 at Marley Common and ten at Hunston, both on the 23rd, and in February ten at Offham (Lewes) on the 5th, 11 at Ashburnham Place on the 27th and 12 on Ashdown Forest on 2 Mar. In the GBW, Goldcrests were recorded in 33% of gardens.

During the BBS Goldcrests were recorded in 43% of the squares surveyed, with a maximum of ten at Nutbourne (Pulborough) on 10 Jun. Confirmed breeding records came from only two tetrads compared to 14 in 2020, although it was considered probable or possible in 119, almost the same as the 120 tetrads recorded in the previous year. At Broadwater Warren 46 pairs were recorded. Autumn passage was poor, probably the result of unsuitable weather conditions. The maximum number recorded at Beachy Head was 20 on 16 Oct, (whereas the peak in 2020 had been 80 on 17 Oct). Double-figure counts elsewhere included ten at Brooklands on 1 Sep, 11 at Rye Hbr the same day, 12 at Old Lodge LNR (Ashdown Forest) on 17 Nov, 12 at Worth Forest on 9 and 15 Dec, ten at Swanbourne Lake on 15 Dec and 12 at Broadwater Warren on 17 Dec. During the late winter SWBS, birds were encountered in 37% of the squares surveyed with a maximum of eight at both West Lavington and Telham, both on 14 Nov. [MC Daniel]

Wren

Troglodytes troglodytes

Abundant resident. Amber listed species of medium conservation concern.

Wrens were recorded in 736 tetrads (75%), compared to the 10-year average of 581 (range 554 to 736). In the early year SWBS birds were recorded in 95 (80%) of the squares surveyed, similar to the previous two years. Notable high counts in this early year period were 36 at Newhaven Tide Mills on 1 Feb and 20 at Combe Valley CP on 25 Jan. During the GBW, they were recorded in 83% of the gardens surveyed during the year, an increase from 79% in 2020, although less than the 88% recorded in 2019. Wrens were the 18th commonest species recorded in the BGBW, an increase from 19th in the two previous years.

Wrens were recorded singing throughout the year, nest building was first observed on 12 Mar at Loxwood, a bird with food or faecal sac was noted at Arlington Res on 1 May and the first fledged young were seen at Steyning WTW on 2 Jun. A nest was found in a dormouse box in Binstead and birds with brood patches were ringed at Cissbury on 5 May and 26 Jun.

Breeding was confirmed in 22 tetrads and probable in 61, similar totals to 2019 and 2020. During the BBS birds were recorded in 170 (96%) of the 177 squares surveyed, a similar number to previous years with highest counts of 42 at Westfield on 25 May. Twenty singing males were noted in Henfield on 22 Mar with the same number seen at Pulborough Brooks on 28 Mar.

In the late year SWBS Wrens were recorded in 117 (75%) of the squares surveyed. In this same period high counts were 19 at Pagham Hbr on 5 Nov and 16 at Medmerry on the same date and 16 both at Steyning Roundhill on 15 Dec and Combe Valley CP on the 21st. Overall, records show the Wren population is stable and possibly increasing in Sussex, probably benefiting from generally milder winters; there were no records of communal roosting. This population trend is mirrored nationwide with the BTO considering it to be Britain's commonest bird with a population of 11 million pairs in 2020, having risen from 8.5 million pairs in 2013. [D Brothwell]

Nuthatch

Sitta europaea

Common resident.

Nuthatches were recorded in 481 tetrads (50%), the most on record, compared to the 10-year average of 419. They were recorded in 44% of participating gardens during GBW and during the BGBW were recorded in 8% of gardens in West Sussex and 8.5% in East Sussex. During the early year SWBS they were found in 39% of squares surveyed with a maximum of ten at St Leonard's

Forest on 22 Jan. There were two further counts above ten, the highest being 17 at Wakehurst Place on 26 Feb.

Breeding was confirmed in 12 tetrads and was probable or possible in a further 91. Singing was noted from mid-February, nest building was first observed on 31 Mar at Etchingham, a bird was carrying food at Lavender Platt (Ashdown Forest) on 12 Apr and the first fledged young were seen at Ifield MP on 23 May. During the BBS they were encountered in 49% of squares surveyed with a maximum of 11 at St Leonard's Forest on 24 Apr.

From mid-August through to the end of the year there were five counts of ten and above with 12 being the highest, at Lordship Woods (Cripps Corner) on 21 Aug. During the late year SWBS, Nuthatches were found in 38% of squares surveyed with a maximum of six at West Lavington on 14 Nov. [MJ Chattaway]



Nuthatch, Pulborough Brooks, 28 May (Juliet Moore)

Eurasian Treecreeper

Certhia familiaris



Common resident.

Treecreepers were recorded in 331 tetrads (34%), slightly higher than the 10-year average. During the first winter period the highest counts were six at The Pells (Lewes) on 10 Jan and also at Hellingly Park Wood (Hailsham) on 20 Mar. A total of 25 were recorded in the early year SWBS from 19 (16%) of the squares studied. Throughout the year the species was recorded in 35 (9.9%) of the gardens surveyed for the GBW.

Breeding was confirmed in ten tetrads and was probable in a further 20. One carrying food and nest material was noted on 16 Apr at Warnham, and a pair were seen repeatedly collecting food and visiting the nest site on 7 Jun at Shripney (Bognor). The first fledglings were noted at Greatham on 17 Jun. During the late summer the highest counts were of seven on 9 Jul and 10 Oct on the Knepp Estate, five at Pulborough Brooks on 17 Aug and 18 Sept and also at both the Knepp Estate and Antye Fm (Burgess Hill) on 28 Aug.

In the late year SWBS 30 Treecreepers were recorded in 19 (16%) of the squares surveyed. [PJ Plant]

Northern Mockingbird

Mimus polyglottos ●

Very rare vagrant.

The most extraordinary record of the year, one spent the day on the southern edge of Pulborough, by the R Arun, on 8 Apr (D Brooks, C Lindsay, MS Phelps *et al.*). A finder's account is on pages 209-210 of this report. The same bird had been in a garden in Exmouth until the previous day, having arrived there on 6 Feb. It went on to be widely seen in Newbiggin, Northumberland, from 5 to 7 May, and there was a report from Swindon, Wiltshire, on 15 Apr. The records have been accepted by BBRC. [DK Campbell]

Rose-coloured Starling

Pastor roseus ●

Rare vagrant.

In June there were sightings of adults at Roedean on the 1st (AD Whitcomb), Beachy Head on the 5th (L Pitcher), Crawley between the 5th and the 9th (per Hon. Recorder) and Rustington on the 9th (AR Tater). Assuming that four different individuals were involved, this brings the county total to 53 with 28 this century and continues the unbroken run of annual sightings since 2015. [AC Gutteridge]



Rose-coloured Starling, Beachy Head, 5 May (Laurence Pitcher)

Common Starling

Sturnus vulgaris 

Common but declining resident and very common to abundant winter visitor. Red listed species of high conservation concern. Section 41.

Starlings were recorded in 634 (64%) tetrads during the year compared with the 10-year average of 532 (range 464 to 612). They occurred in 243 (83%) of participating GBW gardens.

Large flocks reported in the first winter period were 7500 on 6 Jan and 4900 on 17 Jan at Palace Pier (Brighton), 1400 at Weir Wood Res on 8 Jan, 5000 at Pevensey Levels on 18 Feb, 5000 on 18 Feb at Pulborough Brooks, 1000 at Henfield Levels on 17 Feb and a murmuration of at least 3000 at New Salts Fm (Lancing) on 5 and 9 Mar. On 19 Feb 300 were preparing to roost at Rye Hbr and 500 were at Arlington Res the same day. A murmuration of 300 was seen at dusk at Newhaven on 16 Feb but on 28 Feb 600 gathered there before moving off elsewhere. In the early year SWBS at total of 3055 was found in 64% of squares surveyed compared with 4778 in 59% of squares the previous year. In the BGBW they were seen in 40% and 36% of participating sites in West and East Sussex respectively.

Breeding was confirmed in 90 tetrads and probable in a further 21. Mating was seen at Worthing on 15 Feb and on 20 Feb a Starling was seen to emerge from a Swift nest box at Bognor Regis and a pair then bred in the box. Evidence of nest building became widespread from mid-March and signs of hatched young were widely detected from 10 Apr with the first fledged young seen at Haywards Heath on 1 May. In the BBS this species was seen in 76% of squares with a maximum of 101 at Hickstead on 19 Jun; the county BBS index has stabilised, albeit at a lower level, over the past decade.

On 13 May two albino juveniles were seen at Ferring and an albino bird was at Peppering Fm (Burpham) on 22 Jul.

On 26 Jul a post-breeding flock of 1000 was present at Thorney Island. From 30 Jun until 5 Nov up to 150 assembled on a pylon at Three Bridges prior to roosting. In the second winter period four-figure flocks occurred at ten sites with peak roost counts of 5325 on 25 Nov at Weir Wood Res, 1000 on 27 Nov at Warnham LNR, 3400 on 11 Dec at the Palace Pier and 3000 from 26 Dec onwards at Lancing. In the late year SWBS 5761 Starlings were counted in 62% of squares surveyed with a maximum of 1215 at Findon on 16 Dec. [AC Gutteridge]



Common Starling, Chichester, 11 May (Bob Brewer)

Song Thrush

Turdus philomelos 

Very common but decreasing resident and partial migrant; common passage migrant and winter visitor. Amber listed species of medium conservation concern. Section 41.

The species was recorded in 680 tetrads (69%) compared with the 10-year average of 592 (range 527 to 698).

During the first quarter, 20 or more were recorded at 13 sites, eight of them over the very cold weekend of 11 to 14 Feb including 33 at Hastings CP, 30 at Rodmell and 25s at Arlington Res and Winchelsea Marsh, much bigger counts than in the previous year. In the first two months of the year, during the SWBS this species was encountered in 76% of the of the squares surveyed with a maximum of ten at Crawley Down on 27 Feb.

On 24 Mar, nests with eggs were found at both Etchingham and Warnham LNR and with young at the latter on 9 Apr. Food was being carried to a nest at Pulborough Brooks on 6 Apr and another active nest was reported on the 8th at Pippingford Park (Ashdown Forest) but fledglings were not seen until 1 May, at Haywards Heath, with more following at Pulborough Brooks on the 3rd and at Balcombe on the 7th. The season extended to at least the end of July when a recently used nest was noticed at Tilgate Forest. BBS records came from 84% of the squares surveyed and the county index from this survey showed a further small rise back to the 1994 level. Counts of breeding pairs on the county's reserves were 22 at Pagham Hbr, 21 at Broadwater Warren, seven at both Fore Wood (Crowhurst) and Westdean Woods and three at Medmerry.

Migration was suggested when four birds were seen mixed with Redwings at Balcombe on 7 Oct but was certain when 30 were found at Sheepcote Valley (Brighton) on 5 Nov, the only count exceeding 15. Further indications of migration were modest rises in numbers on the Knepp Estate, Eastbourne, Wivelsfield and many other sites together with a suspected continental bird ringed at Cissbury on 14 Nov and six others in a bush at Ford Station (Arun Valley) on 11 Dec. In the last two months of the year during the SWBS Song Thrushes were found in 46% of the squares surveyed with a maximum of eight at Bookers Fm (Bolney). [JH Whitman]

Mistle Thrush

Turdus viscivorus 

Common resident and partial migrant. Red listed species of high conservation concern.

Mistle Thrushes were recorded from 469 tetrads (48%), the highest number since the Atlas years and higher than the 10-year average of 356. During the GBW survey, the species was found in 14% of participating Sussex gardens. In the early year SWBS they were reported in 32% of the squares surveyed. As last year, early year counts were low with the exceptions of eight in Screens Wood (Arundel) on 7 Jan, 11 at West Marden on the 17th and nine at Petworth Park on 5 Feb (encountered during the SWBS).

Breeding was confirmed in 23 tetrads and probable in a further 38. In the BBS they were reported in 34% of the squares surveyed, the maximum being 14 at Petworth Park on 19 Apr. Although nest building was reported from Sedlescombe on 17 Mar and at Cowdray Park GC the next day, the first confirmation of breeding was a flightless chick out of the nest at West Marden on 25 Mar followed by another at Cuckfield on 11 Apr, before any other confirmed breeding activities were noted. Reports of food or faecal sac carrying came from two dozen sites starting 12 Apr at Barcombe Res, then Combe Valley CP, the Knepp Estate, Mountfield, Ashdown Forest, Brighton and Pulborough Brooks. An astonishing 35 juveniles were seen together in St Leonard's Forest on the morning of 24 Jun and four young were with two adults at Parham on the 19 Jul, otherwise single or pairs of young were noted until late July. High counts with unspecified numbers of juveniles were 13 at Wivelsfield on 14 Jul and eight at Arundel Park the next day.



Song Thrush, Chichester, 23 May (Bob Brewer)

The second half of the year had larger counts than the first half though fewer than the previous year. Counts of 30 and 31 came only from Ditchling Beacon on 6 Aug and Ardingly Res on 20 Sep respectively and counts in the twenties from Maynard's Green and Uckfield on 9 Aug, Udimore on the 13th, Ashburnham Place on the 26th and in September there were 31 at Ardingly Res on the 20th, which was the last of the higher counts. In the late year SWBS Mistle Thrushes were reported in 21% of the squares surveyed with a maximum of 13 at Petworth Park on 15 Nov. [JH Whitman]

Redwing

Turdus iliacus 

Common, occasionally very common, passage migrant and winter visitor. Amber listed species of medium conservation concern. Schedule 1 species.

Redwings were recorded from 488 tetrads, more than in 2020 and greater than the 10-year average of 350. It was a record year in nearly every respect. The following table of approximate minimum monthly totals, summing the highest count in each tetrad in each month, reveals greater numbers in both winter periods than the previous decade averages particularly during October and November.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	5632	5813	3532	34	1	0	0	1	2	15,631	7754	3180
Average county total 2011 to 2020	2972	2414	1740	225	0	0	0	0	7	2104	1470	2733

The high numbers of the previous year continued and three counts of 500 birds were at the Knepp Estate on 2 Jan, St Leonard's Forest on the 11th and Barcombe on the 18th along with 260 at Slinfold on the 4th and 180 at Ashurst on the 15th. The big gatherings dispersed in February leaving 240 at Buckhurst Park on the 4th, 237 at Arlington Res on the 9th with 300 at Lindfield the same day, 250 at Botolphs (Bramber) on the 11th, and 200s at Ashurst on the 12th and St Leonard's Forest on the 21st. A total of 1907 was reported during the early year SWBS and Redwings were found in 50% of the squares surveyed.

Migration was clear in March with 580 at Maynard's Green on the 3rd, virtually in one flock, and 250 at Crow's Nest (Ashdown Forest) on the 2nd, then 400 at Pulborough Brooks mid-month, again mainly one group. April was barren apart from 20 at Barcombe on the 12th, while the penultimate bird was on the Knepp Estate on the 28th as was the last one on 23 May, 38 days later than the 10-year average last date of 15 Apr, which is only three days earlier than the latest last date.

Unfortunately, a female was found freshly dead at Cissbury on 22 Aug, 24 days earlier than the 10-year average first date of 14 Sep, then two birds were seen at Weir Wood Res on 26 Sep, followed by four at Warnham on 3 Oct and one at Crawley on the 6th. Numbers crept up until 6500 flew west at Weir Wood Res early on the 13th and 412 at Crawley, perhaps associated, while 180 were noted at Pulborough Brooks. Amongst later sightings of 100 plus were 200 at Balcombe on the 17th and 26th and 210 at Wivelsfield on the 24th when there were also 310 at Crawley.

Migration continued when 3445 passed west over Brighton with Fieldfares on 4 Nov with 1500 more the next day along with 200 at Netherfield. In the middle of the month 200 were recorded at Staplefield, 250 at Cissbury and 400 at Weir Wood Res while the month closed with 275 at Stoughton and 200 at Rewell Wood (Arundel), the only high counts all year west of the R Arun. Stability reigned in the last month when amongst six other 100s, 180 were recorded at both Hartfield on 6 Dec and Balcombe on the 28th when there were also 150 at Pulborough Brooks. During the second winter period SWBS a total of 994 were found in 46% of the squares surveyed. [JH Whitman]

Blackbird

Turdus merula 

Abundant breeding resident; very common or abundant winter visitor; status uncertain as passage migrant.

Blackbirds were recorded from 783 tetrads (79%), the highest number ever recorded and compared to the 10-year average of 680 (range 604 to 767). The species was recorded in 353 (99%) of the 355 gardens surveyed during the GBW, was encountered in 99% of the squares surveyed in the early year SWBS and in the BGBW occurred in 83% and 78% of West and East Sussex gardens respectively. In the first winter period there were counts of 25 or more at 11 sites, including 42 at Newhaven Tide Mills on 1 Feb, 36 at Arlington Res on 9 Jan and 32 at The Pells (Lewes) on 5 Jan. There were four counts of 20 or more in March with the highest at Arlington Res being only 25 on the 14th while April fared better with 46 at Southleigh Forest (Emsworth) on the 25th and 30s at North Stoke (Arun Valley), Robertsbridge and Arlington Res.

Unusual counts of 50 on Wepham Down on 9 May were accompanied by five others of at least 30 in the first days of the month, and 80 during an 11 km walk in the Knepp Estate on 31 May. Confirmed breeding came from 84 tetrads and was probable at another 77. While singing was heard at Storrington as early as 18 Jan, nest building was not noted until 22 Feb at Worthing and at Balcombe on the 24th, continuing to at least the end of July for later broods. An occupied nest at Barcombe on 23 Mar preceded reports of food being carried at Mountfield on 1 Apr, at Angmering on the 3rd and Streat on the 4th and continued until 8 Aug. Fledglings were at large at Barcombe on 7 Apr, but were next seen at Arundel on the 18th and at Five Oaks on the 24th and two more were with adults at Steyning on the 29th. In the BBS, the species was encountered in 99% of squares surveyed with a maximum of 49 at Southleigh Forest (Emsworth) on 28 May. The breeding surveys on reserves found 36 pairs at Broadwater Warren, 23 pairs at Fore Wood (Crowhurst), 22 pairs at Pagham Hbr, ten territories at Westdean Woods but just two pairs at Medmerry.

Autumn migration was suggested by 30s at Beachy Head and Rye on 4 Nov and 60 at Sheepcote Valley (Brighton) on 5 Nov. There followed 40 at Danehill on the 16th, 50 at Beachy Head on the 20th and 44 at West Marden on the 29th and more counts of 30 came from Sheepcote Valley, the Cuckmere Valley and Combe Valley CP in December. In the late year SWBS Blackbirds were found in 96% of squares surveyed. [JH Whitman]

Fieldfare

Turdus pilaris 

Common, occasionally very common, passage migrant and winter visitor. Red listed species of high conservation concern. Schedule 1 species.

Fieldfares were recorded from 307 tetrads, (rather more than 2020), compared to the 10-year average of 282. Poor January and October counts were almost balanced by an excellent November one. Approximate minimum monthly totals, calculated in the same way as Redwing, were as follows:

	Jan	Feb	Mar	Apr		Sep	Oct	Nov	Dec
2021	1865	2713	1625	231		0	51	4325	1337
Average county total 2011 to 2020	4835	3030	1669	174		2	1124	3071	2617

The weak January count included 200 birds at Findon and 90s at Steyning, Wivelsfield, Alciston and Battle. There were 200 at Thakeham in February and 250 on Ashdown Forest mid-month as well as 100s at Lewes and Rye while flocks in early March included 300 near Lavant, 240 at Arlington Res and 100 at Uckfield. Spring ended with 52 at Shermanbury and 40s at Barcombe and Flimwell mid-April while the last high count was 29 at Ashdown Forest on the 24th before the last bird left

Pulborough on the 27th, one day earlier than the 10-year average. In the early year SWBS Fieldfares were recorded in 31% of squares surveyed with a maximum of 91 at Clayton Fm (Rye) on 22 Feb.

The return passage was marked by two flying high over Worth Park (Crawley) on 5 Oct, two weeks later than the 10-year average. A single at Nyetimber (Bognor Regis) on the 11th was then followed by sporadic singles until the 25th, including at Black Down, Amberley, Cissbury, Knepp Estate, and Ashdown Forest and another two at Crawley. An arrival on 4 Nov saw 2780 fly west over Brighton with even more Redwings, though elsewhere only 70s were noted: at Devil's Dyke, Southwick and Rye. On the following day another 880 flew west over Brighton, also with Redwings, when there were also 100s at Barcombe and Netherfield. Another 100 were on Ashdown Forest on the 6th while 100 were reported from Amberley Wild Brooks on the 13th and 250 at Henfield on the 24th. December opened with 120 at Singleton, while 200 appeared at Burpham on the 4th and 330 at Beeding Hill on the 10th. Finally, 173 were seen at Rye on the 22nd, which was the maximum count during the late year SWBS, when they were encountered in 22% of squares. [JH Whitman]

Ring Ouzel

Turdus torquatus 

Passage migrant; very scarce in spring; scarce to fairly common in autumn. Red listed species of high conservation concern. Section 41.

Ring Ouzels were recorded mostly at coastal sites or on downland. While the spring count was easily the highest since at least 1995 the autumn passage was just 12% of the 10-year average and the smallest since 2008. The estimated monthly totals, assuming that there was turnover from day to day in birds present at the main sites, were as follows:

	Jan	Feb	Mar	Apr	May		Aug	Sep	Oct	Nov	Dec
2021	-	-	1	46	1		-	-	35	9	-
Average county total 2011 to 2020	<1	<1	1	21	2		<1	11	364	7	<1

A lone migrant appeared at High and Over (Seaford) on 29 Mar, six days later than the 10-year average of 23 Mar, and two days later possibly the same bird was recorded at nearby Combe Hill (Willingdon). The third spring record, at Castle Hill (Falmer) on 10 Apr, was followed by an influx at Wilmington with up to 20 birds recorded between the 13th and 18th peaking at eight on the 16th. A female arrived at Rye Hbr, also on the 13th and another at Climping the next day; sightings then came almost every day from the 18th to the 27th. Just two were seen at Cissbury and also at Rackham Hill but on the 25th three were found at both Amberley Mount and Itford (Southeast). Further inland, singles were at Maynard's Green and Ticehurst, both on the 27th. Another at Beachy Head on 1 and 2 May was the last of the spring, precisely on the 10-year average last spring date.

The first of the autumn was at Hastings on 6 Oct and three were at Beachy Head on the 7th and eventually, on the 21st, there was another at Beachy Head. Thereafter, a modest trickle of October sightings included two at Arundel, a dozen passing through Cissbury, peaking at four, with another six through Beachy Head, three through Hastings and a single at Woodingdean. Five more migrants graced Beachy Head in early November and singles were seen at Black Down, Cissbury and Sheepcote Valley (Brighton) before 5 Nov. Finally, a lone bird was seen at Upper Beeding on the 19th, six days later than the 10-year average last date of 13 Nov. [JH Whitman]



Spotted Flycatcher, Seaford, 27 August (Bob Eade)

Spotted Flycatcher

Muscicapa striata

Fairly common but declining summer visitor; scarce passage migrant in spring and fairly common in autumn. Red listed species of high conservation concern. Section 41.

Spotted Flycatchers were recorded in 173 tetrads (17%), compared to the 10-year average of 149. Some idea of abundance and comparison with recent years is seen in the following table which sums the maximum number in each tetrad in each month.

	Apr	May	Jun	Jul	Aug	Sep	Oct
2021	0	68	32	44	160	198	1
Average county total 2011 to 2020	3	62	47	37	158	195	7

The first of the year was at Pulborough on 2 May, six days later than the 10-year average, quickly followed by others throughout May, mostly in ones and twos culminating in five on the Knepp Estate on 31 May. Sightings in June followed a similar pattern with single-figure records.

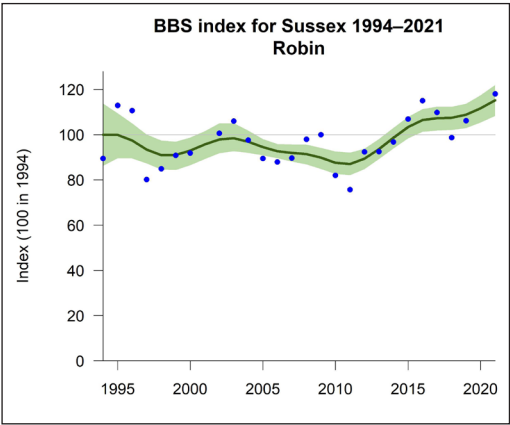
Breeding was confirmed in eight tetrads, probable in five and possible in 15. A bird with food or faecal sac was seen on 23 Jun at Lavington Common and at Burton MP three pairs were observed feeding young on 13 Jul. Other locations with confirmed breeding were Pulborough Brooks, Ashdown Forest, Wivelsfield, Keymer and Etchingham.

In July numbers rose slightly to include counts of four, and on the 9th seven were at the Knepp Estate. In August sevens were at Black Ditch (Poling) on the 22nd and at Charleston Reedbed on the 26th, eights at Stanmer Park (Brighton) on the 28th and Beachy Head the next day but it was September that saw the highest counts of the year. Twenty were at Eastbourne Old Town on the 7th, 15 at Wivelsfield Green on the 1st and ten at Black Down on the 12th with five further counts of seven or eight. Numbers dwindled from the middle of the month and the last record of the year came on 9 Oct at Pagham Hbr, four days earlier than the 10-year average last date. [T Seabrook]

Robin

Erithacus rubecula

Abundant resident; probably common passage migrant; mainly in autumn; status uncertain as winter visitor.



Robins were recorded in 789 (80%) tetrads, similar to 2020 and above the 10-year average of 676. During the early year SWBS the species was recorded in all bar one of the squares surveyed with the largest count of 37 during the two 1-km transects at Danehill on 24 Feb. The annual BGBW found Robins in 79% of East Sussex and 81% of West Sussex gardens whilst during the GBW only two of the 355 participating gardens failed to record Robins.

The widespread nature of the species was also shown in the BBS, during which Robins were not found in only two of the

surveyed squares; 47 recorded at Southleigh Forest on 28 May was the highest number recorded during the survey. The Sussex BBS index (above) has shown a steady increase since 2010 and that for 2021 was the highest since the inception of the survey in 1994.

Breeding was confirmed in 75 tetrads and considered probable in a further 61. The first recorded occupied nest was at High Cross Fm (Uckfield) on 18 Mar, the first nest with young at Etchingham on 4 Apr and the first fledged young at Crawley on 7 Apr. The breeding surveys on the RSPB reserves revealed 85 pairs at Broadwater Warren, 33 pairs at Pagham Hbr, 15 pairs at Fore Wood (Crowhurst) and three pairs at Medmerry. An observer walking 11 km at the Knepp Estate on 31 May recorded 90, the highest count in the year.

During the late summer and early autumn, when this species is less easy to detect, most records were in single figures, although in September numbers began to increase with 32 at Burgess Hill on the 12th, 30 at Pagham Hbr on the 11th and 30 at Pulborough Brooks on the 26th. Forty at Rye Hbr on the 17th was the largest count in October. The SWBS during the second winter period found Robins in 92% of the squares surveyed with 34 on 16 Nov at Danehill being the highest count in the second winter period. [T Seabrook]

Common Nightingale

Luscinia megarhynchos

Fairly common summer visitor and infrequently seen passage migrant. Red listed species of high conservation concern.

The species was recorded in 131 (13%) tetrads in 2021, down from 2020 but just above the 10-year average of 129.

One singing at Barcombe Cross on 2 Apr was three days earlier than the 10-year average and was followed on the 4th with two at Ebernoe Common and one at Pulborough Brooks. Thereafter Nightingales were recorded almost daily until the end of July from over 150 sites, 45 of which were sites where they had not been recorded over the past five years. In the Knepp Estate Southern Block (473.17 ha) several structured surveys were carried out across the breeding season and recorded an estimated 32 Nightingale territories. Other outstanding records included 13 pairs at Pulborough Brooks, 11 pairs in the Barcombe area and eight at Wineham on the 21 Apr. During the BBS 31 were found in 15 (8.6%) of the squares surveyed. Breeding was confirmed in just three tetrads with probable or possible breeding in a further 74. The first positive indication of breeding success was of fledged young at Pulborough Brooks on 6 Jun.

As usual the number of records declined sharply in August although up to three were noted at Pulborough Brooks until the 15th. Elsewhere singles were noted at six sites with two at Pett Level on the 11th and three at Whitbread Hollow (Beachy Head) on the 20th. The final record at Whitbread Hollow on 6 Sep was six days earlier than the 10-year average departure date of 12 Sep. [T Seabrook]

Pied Flycatcher

Ficedula hypoleuca

Scarce passage migrant; more numerous in autumn than spring. Has bred. Amber listed species of medium conservation concern.

Pied Flycatchers were recorded in 53 tetrads (5.3%), more than the 10-year average of 37 but fewer than the previous year's record count. The approximate monthly totals were as follows:

	Apr	May	Jun	Jul	Aug	Sep	Oct
2021	10	4	0	1	40	21	0
Average county total 2011 to 2020	8	2	<1	2	46	20	1

The first sighting was of one at Birdham (Chichester) on 1 Apr which equals the earliest arrival date, compared to the 10-year average of 15 Apr. This was followed by one at Pulborough Brooks the next day, which was seen daily until the 9th. During this period one was at Pagham Hbr on the 5th and at Houghton on the 8th. The next was not until the 16th at Pett Level and thereafter single

birds were reported through to the end of the month and the first week of May with two seen at Beachy Head on the 7th.

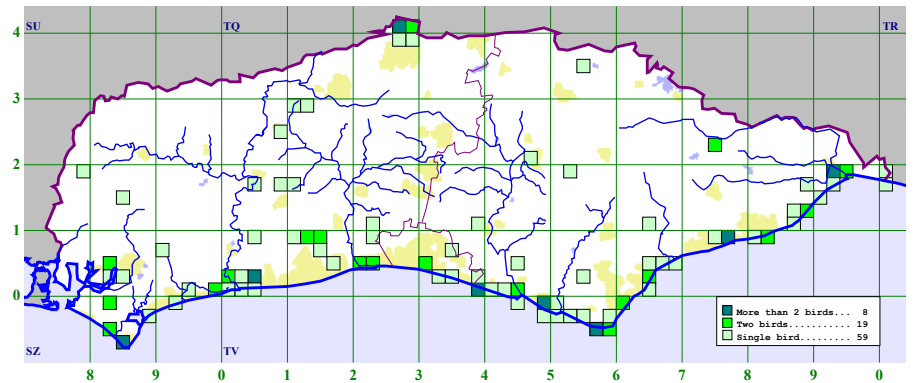
At the end of July sightings began again with one near Findon on the 27th. Single birds were involved at mostly coastal locations until 22 and 23 Aug when three were seen in a West Tarring (Worthing) garden. Three more were at Beachy Head and also in Eastbourne on the 24th. On the same day two were at Sedlescombe, and on the 26th two each were at Worthing and Brighton. Records were primarily of singles until 24 Sep when two were seen at Hove, the last of the year, nine days earlier than the 10-year average last date. [T Seabrook]

Black Redstart

Phoenicurus ochruros

Rare resident; scarce passage migrant and very scarce winter visitor. Amber listed species of medium conservation concern. Schedule 1 species.

Records of Black Redstart were submitted from 86 tetrads (8.7%), which represents a slight increase on the 84 in 2020 and a significant increase on the 10-year average of 70. Predictably, the majority of sightings were concentrated around the coast, as can be seen by plotting the maximum count in each tetrad:



Birds were present in every month of the year. A strong wintering presence at the start of the year gave way to a typical spring passage, followed by a plentiful summer and a delayed autumn migration. Minimum monthly counts, estimated by summing the peak count in each tetrad, were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	65	22	62	21	7	14	1	14	2	15	65	15
Average county total 2011 to 2020	32	18	52	26	4	2	1	2	3	78	76	27

High numbers in the first winter period comprised mainly records from traditional coastal wintering sites. Medmerry, Shoreham, Brighton and Peacehaven all held birds throughout January.

Spring migration commenced in March, peaking around the 25th, with records from Climping, Shoreham, New Salts Fm (Lancing), Cuckmere Haven and Beachy Head on that day. On 18 Apr an individual was seen in a garden in Billingshurst, a rare inland record. Further south, a singing male set up territory at Beachy Head from 20 Apr to 17 May.

Notably, breeding was confirmed in three tetrads, including the first inland breeding record for over ten years, at Gatwick Airport. Birds were reported there throughout the year, including young on 19 Aug, suggesting that the species could be a breeding resident at the site. Fledglings were also

reported from Rustington (25 Jun) and Newhaven (6 Jul). The former provided the year's high count of five, three of which were juveniles. This is the first time that breeding has been confirmed in Sussex since 2017, and the only time multiple tetrads have hosted breeding in the last decade. Three were also found at Bulverhythe (St Leonards) on 9 Jun, one of only seven sightings throughout the year where more than two were reported.

This success was followed by an unusually lean autumn, particularly October, when only 15 were recorded, compared to the 10-year average of 78. Numbers picked up during November, but few remained into the second winter period, though three were reported from Beachy Head on 3 Nov, Selsey Bill on the 11th, Seaford on the 16th, and Rye Hbr on 1 Dec. [A Glossop]



Common Redstart, Old Lodge NR, 23 June (Colin Holter)

Common Redstart

Phoenicurus phoenicurus 

Scarce or fairly common summer visitor and fairly common passage migrant. Amber listed species of medium conservation concern.

Common Redstarts were recorded in 109 tetrads (11%) in 2021, this being a slight decrease on 2020's record year of 120, but still above the 10-year average of 92. An approximate guide to the monthly abundance is shown in the following table which sums the highest count in each tetrad in each month.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct
2021	4	64	85	34	8	77	89	0
Average county total 2011 to 2020	1	59	62	46	17	101	106	8

The first of the year was three days earlier than the 10-year average first date, at Beachy Head on 29 Mar followed by one at Ashdown Forest on the 30th and two at Black Down on the 31st. However, it was not until 8 Apr that the first pulse of birds arrived onto their breeding grounds, with six at Pippingford Park (Ashdown Forest); this increased to ten on 21 Apr, with another nine at Old Lodge LNR (Ashdown Forest) on the 24th.

Breeding was confirmed in five tetrads and probable in a further 15. Results from the WHBBS revealed territories at the following commons in West Sussex: Chapel Common (Liphook) (5), Linchmere and Stanley Commons (4), Black Down (5), Weavers Down (Liss) (3) and Ambersham Common (2). A survey in the Pippingford estate (Ashdown Forest) found 34 occupied territories, with breeding confirmed for 22, probable in seven and possible in five. Of the 22 nests, only three failed. Elsewhere in Ashdown Forest very incomplete surveying in May found ten males apparently holding territory in Broadstone Warren and three, definitely paired in one instance, in Hindleap Warren.

The first migrants of the autumn were two at Cissbury on 3 Aug. The highest counts of the autumn were eight at Bignor Hill and Beeding Hill on 30 Aug and 7 Sep respectively, and ten at Old Town (Eastbourne), also on the 7th. The final record of the year was of one at Cissbury on 29 Sep, very early compared to the 10-year average last date of 29 Oct. In only one other year (2014) have there been no October records. [MR Eade]

Whinchat

Saxicola rubetra 

Fairly common passage migrant. Rare summer visitor; last bred in 1999. Red listed species of high conservation concern.

Whinchats were recorded in 100 tetrads (10%) compared to the 10-year average of 87. As usual there was a strong bias towards the coast. Using the total of peak counts in each tetrad gives a guide to the monthly occurrence and how this year compares with the average for the previous decade. These figures and the number of days they were recorded are shown in the following table.

	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
2021	-	6	18	1	3	187	176	8	-
Average county total 2011 to 2020	<1	18	15	1	8	151	177	20	<1
No. of days	0	6	12	1	3	22	27	7	0

The first arrival was at Medmerry on 20 Apr, 14 days later than the 10-year average arrival date, followed by singles at Selsey Bill, Yapton, Seaford Head, Cuckmere Haven and Pett Level before the end of the month. Records in May were of one or two but three were at Selsey on the 7th. In June one was at Sidlesham Ferry on the 5th.

The first returning Whinchat was seen on 9 Jul at Pulborough Brooks with three further sightings in July: at East Marden and Selsey, both on the 18th and at Newhaven on the 24th. It wasn't until the second week in August that sightings became daily. The highest counts were 19 on the 27th at New Erringham Fm (Shoreham) and 16 on the 29th at Beachy Head. The highest inland count was nine at Pulborough Brooks on the 30th.

In September there were six counts of ten and above, the highest being 12 on the 3rd at both Lidsey Rife and Beeding Hill and at Cuckmere Haven the next day with counts of between five and nine at eight further locations. In October there were two counts of three, at Newhaven on the 9th and Cuckmere Haven on the 24th, which was the last date the species was recorded, four days later than the 10-year average last date. [MJ Chattaway]

Eurasian Stonechat

Saxicola rubicola 

Fairly common resident and partial migrant.

Stonechats were recorded in 281 tetrads (28%), well above the 10-year average of 190 (range 121 to 301) and on every day of the year except four. A guide to the monthly occurrence, produced by summing the highest count in each tetrad in each month, is shown in the following table. In every month except October, more were recorded than the average for the previous decade.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	227	259	166	179	217	142	106	153	254	244	248	168
Average county total 2011 to 2020	111	103	98	89	118	128	91	118	225	307	152	136

The highest count of the first winter period was 15 on 25 Feb at Pippingford Park (Ashdown Forest) with four further counts of ten and above there and also from Medmerry on 8 Jan and 7 Mar, Mile Oak (Portslade) on 22 Jan, No-man's Land (Findon) on 23 Jan, Cissbury on 8 Feb, Steyning Levels on 9 Feb and Danehill on 22 Mar. During the early year SWBS they were found in 7.5% of squares surveyed with a maximum of five at Steyning Roundhill on 8 Jan.

Breeding was confirmed in 26 tetrads and probable in a further 37. Most locations were on Ashdown Forest but confirmed breeding occurred elsewhere at 22 sites. On the West Sussex Commons 50 pairs or territories were identified (see page 206). At Broadwater Warren there were 15 pairs and at Medmerry ten. Nestbuilding was first noted on 22 Mar at the Old Airstrip (Ashdown Forest), the first confirmed breeding was a bird with food or faecal sac on 17 Apr at Pulborough Brooks and the first fledged young were seen on 6 May at Pippingford Park. On Ashdown Forest the highest counts at specific locations during the breeding season were 18 at Old Lodge LNR on 7 May and 28 Jul, ten each at Wren's Warren on 16 Jun and Friends on 2 Aug. Elsewhere there were 13 at Cuckmere Haven on 6 Jun and ten at Medmerry on 8 Jun. The highest count on the West Sussex commons was ten at Black Down on 16 and 28 May. During the BBS the species was found in 7.9% of squares surveyed with a maximum of five at Old Lodge LNR on both 19 Apr and 6 Jun.

The highest autumn count at Beachy Head was 20 on 28 Aug with 17 at Cuckmere Haven on 13 Sep, 19 at Wych Cross (Ashdown Forest) on the 21st and 18 further counts of ten and above. There were only four double-digit counts during the second winter period: 15 in the lower Cuckmere Valley on 11 Nov, ten at Medmerry on the 15th and 28th and at Thorney Island on the 16th. During the late year SWBS, Stonechats were encountered in 14% of squares surveyed with a maximum of five at Old Lodge LNR on 22 Nov. [MJ Chattaway]

Northern Wheatear

Oenanthe oenanthe 

Very scarce breeding summer visitor and common passage migrant; very rare in mid-winter. Amber listed species of medium conservation concern.

Northern Wheatears were recorded in 192 tetrads (19%), more than the 10-year average of 149. A rough guide of the monthly abundance, derived from the sum of the maximum count in each tetrad, is shown in the following table.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	0	1	169	221	228	0	4	327	403	54	1	0
Average county total 2011 to 2020	0	0	104	236	100	29	17	343	403	113	5	0

The first arrival was on 28 Feb at East Ashling (Chichester), eight days earlier than the 10-year average (8 Mar). One of the earliest and most visible migrants, two records followed in the first week of March, at Birling Gap on the 3rd and at West Rise Marsh (Eastbourne) on the 4th. There were

a further five records up to the 20th, after which a more significant arrival occurred with 131 records from this date to the end of the month, including the first double-digit counts of 19 between Goring Gap and West Worthing on the 25th. There were a further 15 counts of ten or more in the spring with the highest 19 at Beeding Hill on 29 Mar.

Four or five territories were reported at Rye Hbr with a singing male there on 11 May and fledglings seen from mid-July. This was the only site with confirmed breeding. Nesting birds appear to have been adversely affected by the bad weather during May, with relatively few sightings between late May and mid-July.

Autumn passage began in the first week of August with the first substantial count of five at Standean Bottom (Woodingdean) on 4 Aug. During August there were 19 reports of ten or more, the majority coming towards the end of the month, with the highest counts being 29 at both New Erringham Fm (Shoreham) on 27 Aug and Beachy Head on the 29th. September was the peak month with Wheatears recorded from 143 sites, the highest counts being 38 and 24 at Beeding Hill on 3 and 17 Sep respectively and 30 at Thorney Island on the 7th. Passage continued during October with observations on 19 different days at over 30 sites and with a maximum of 15 at Truleigh Hill on the 3rd. Just two were recorded in November: one at East Head on the 2nd and the last at Beachy Head on the 4th, five days earlier than the 10-year last average.

Greenland Wheatear, *O. o. leucorhoa*

A male and a female showing characteristics of this race were seen at Pagham Hbr on 20 Apr and singles were at Telscombe Cliffs on 21 and 28 Apr, Goring Gap on 6 May, Pulborough Brooks on 8 and 9 May and in the autumn, at Eastbourne GC on 21 Oct.

Observers are reminded that nominate birds from Russia and Fenno-Scandian tundras can resemble *leucorhoa* in early spring and autumn, and safe identification of genuine *leucorhoa* generally involves trapping and measuring (Collins Bird Guide, 2nd Ed., p.282). [D Brothwell]

Tree Sparrow

Passer montanus

Much declined and now very scarce resident; scarce passage migrant and winter visitor. Red listed species of high conservation concern. Section 41.

Tree Sparrow continues to hang on in East Sussex and yet again all the records were from there and for the second year in a row none were found on Pevensy Levels where the species has been in serious decline.

The first of the year was at Gillshaw Fm, just west of Rye, where Tree Sparrows were found for the first time in November and December 2020. Four were there on 10 Jan and six on 10 Feb but no more were reported during the year. The only other record from the first winter period was of two together at East Guldeford Level on 28 Jan.

During the breeding season at East Guldeford Level a pair was present at a known nest site on 18 Apr and the highest count was just four birds on 14 Jul. This compares to a high count of ten last year and 50 in 2019. The only other breeding season records were at Broomhill Level. Here four were at Scotney Court Fm on 7 Apr and at nearby Red House there were seven on 2 May and ten on 13 Jun.

Seven were seen at Scotney GP on 19 Sep, the only record for the year at this site, and on the same day the same number were at Broomhill Level. Single birds were at Fairlight on 9 and 23 Oct. Six were at Broomhill Level on 17 Oct and 11 there on 7 Nov was both the last and the biggest count of the year.

The continued reduction in both the number of sites and the size of counts paints a bleak outlook for the future of this charming species in Sussex. This is a species of high conservation concern and observers are asked to report all sightings, particularly if breeding evidence is encountered. [RA Black]

House Sparrow

Passer domesticus 

Very common but possibly declining resident. Red listed species of high conservation concern. Section 41.

House Sparrows were recorded in 621 tetrads (63%), compared with the 10-year average of 536 (range 452 to 688). They were present in 85% of gardens participating in the GBW and in the BGBW in 60% and 63% of sites in West and East Sussex respectively. In the first winter period flocks of c.150 were reported from Balcombe on 3 Jan and Lancing on 25 Mar. In the early year SWBS, they were recorded in 68% of squares surveyed with a maximum of 86 at Ridgewood (Uckfield) on 20 Feb.

Breeding was confirmed in 35 tetrads and probable in a further 77. Investigation of nest sites and nest building was observed at several sites from 20 Feb to the end of the month while the first fledged young were seen on 6 May at Bognor Regis. At Combe Valley CP a flock of 60 containing juveniles on 13 Jun increased to 90 on 24 Jul. During the BBS House Sparrows were encountered in 75% of squares surveyed with a maximum of 88 at Ridgewood on 13 Apr. The only three-figure post-breeding counts were 100 at Rye Hbr on 28 Jul, 100 at Seaford Head on 23 Aug, 120 at Ferring Rife two days later, 120 at New Salts Fm (Lancing) on 5 Sep and 100 at Nutbourne the following day. At Worthing a juvenile with partial leucism on the wings was seen on 20 Aug.

The only 3-figure counts of the second winter period were 110 at New Salts Fm on 7 Nov and 100 at Newhaven on 6 Dec. In the late year SWBS 852 were counted in 51% of squares surveyed with a maximum of 77, again at Ridgewood on 2 Dec. This is a reduction compared with 1218 in 63% of squares in 2020 but otherwise numbers seem to be on the rise. [AC Gutteridge]

Dunnock

Prunella modularis 

Very common resident. Amber listed species of medium conservation concern. Section 41.

Dunnocks were recorded in 684 tetrads (70%), more than the 10-year average of 590. In the GBW they were recorded in 87% of participating gardens during the year and in the early year SWBS they were encountered in 78% of squares surveyed with a maximum of 18 at Danehill on 24 Feb. There were dozens of counts of ten and above, the highest being 22 at Winchelsea Marsh on 4 Feb, 21 at Newhaven Tide Mills on 1 Feb and many counts of 15 to 20 at Pulborough Brooks during this period.

Breeding was confirmed in 24 tetrads and probable in a further 67. Display was observed at various locations from mid-January but it was not until 3 Mar when a bird was seen visiting a probable nest site at Worthing and the first fledglings were seen at West Tarring (Worthing) on 11 Apr. During the BBS Dunnocks were encountered in 86% of squares surveyed with a maximum of 11 at West Dean on 14 May. There were 27 territories at Broadwater Warren and 25 at Pagham Hbr. There was a count of 21 at Apuldram on 26 Jul.

The first double-figure count of the autumn was ten at Pulborough Brooks on 11 Sep and the highest count in this period was 17 at Sheepcote Valley (Brighton) on 8 Oct. There were few counts of ten or more in the second winter period; the highest was 15 at Pulborough Brooks on 2 Nov. During the late year SWBS the species was recorded in 51% of squares surveyed with a maximum of 12 at Firle on 19 Dec. [MJ Chattaway]

Yellow Wagtail

Motacilla flava flavissima



Scarce and localised summer visitor; scarce passage migrant in spring and fairly common in autumn. Red listed species of high conservation concern. Section 41.

Yellow Wagtails were recorded in 96 tetrads (9.7%) compared to the 10-year average of 89 (range 73 to 112). The first of the year was at Pagham Hbr on 30 Mar, three days later than the 10-year average, followed by a widespread arrival in the following week, including 31 at Scotney GP on 2 Apr. The highest spring count of 50 on 29 Apr was also recorded there.

The very few breeding records were in East Sussex with two confirmed nests at Combe Valley CP and eight singing males heard at East Guldeford Levels on 2 Jun. A singing male was at Pevensey Levels on 30 Apr where a pair was seen on 7 May. Breeding was considered probable at Brede Levels and Winchelsea Marsh.

Autumn passage peaked in the two weeks straddling the end of August and beginning of September with the highest counts being 200 at Rye Hbr on 29 Aug, 150 at Halseys Fm (Pagham) on 1 Sep, 125 at Goring Gap on 6 Sep, 100 at Seaford Head on 28 Aug and 100 at Pett Level on 29 Aug.

Seawatchers logged 534 at Selsey Bill in September (454 E, 79 W) with a maximum of 156 on 4 Sep. Small numbers were recorded on ten October dates with the last at Cissbury on 25 Oct, one day earlier than the 10-year average.

Blue-headed Wagtail, *M. f. flava*

There were two records in 2021: a male at Down Level (Pevensey) on 11 Apr (C Peverett) and two males at West Rise Marsh (Eastbourne) from 30 Apr to 2 May (L Pitcher *et al.*). [D Brothwell]



Blue-headed Wagtail, West Rise Marsh, 1 May (Laurence Pitcher)

Grey Wagtail

Motacilla cinerea 

Fairly common resident, passage migrant and winter visitor. Amber listed species of medium conservation concern.

Grey Wagtails were recorded in 314 tetrads (32%), a slight decrease from 317 in 2020 but compared to the ten-year average of 237 (range 155 to 316). In the early year SWBS, the species was found in just four (3.3%) of the squares surveyed which is a decrease from previous years (cf. 5.6% in 2020 and 6.6% in 2019). Birds were reported in every month at Pulborough Brooks and Warnham LNR and in 11 months at Waltham Brooks and Weir Wood Res. They were recorded in 9.9% of gardens during the GBW, an increase from 8.0% in 2020 and 8.6% in 2019.

Breeding was confirmed in 16 tetrads and probable in a further 22 (cf. 20 and 13 in 2020 and 14 and 15 in 2019). During the BBS, birds were found in 7.9% of the squares, compared with 4.8% in 2020 and 8.2% in 2019. Display was first noted at Barcombe on 7 Mar and nest building was first observed at Newick WTW on 4 Apr. The first fledgling was seen at Boreham Street on 25 Apr. The highest number of juveniles seen was five at Weir Wood Res on 13 Jun. Overall Grey Wagtails seem to have a stable population in Sussex which is cause for cautious encouragement given concerns about the health of waterways.

Autumn passage peaked in September with 52 at Selsey Bill (13 E, 39 W) and a maximum of 16 on 11 Sep. The October total at the same site was 21 (4 E, 15 W) with a maximum of five on 3 Oct. In the late year SWBS nine were recorded in 5.7% of the 157 1-km squares surveyed (cf. 5.4% in 2020 and 5.9% in 2019). Notable counts in the autumn and second winter period were seven at Pulborough Brooks on 16 Sep, six at Coopers Green (Uckfield) on 15 Oct and nine at Weir Wood Res on 29 Nov.

The species' habit of attacking its reflection in car wing mirrors was observed at Burton MP on 3 Jan and High Salvington (Worthing) on 27 Oct. [D Brothwell]

Pied Wagtail

Motacilla alba yarrellii 

Common resident; passage migrant and winter visitor.

Pied Wagtails were found in 556 tetrads (56%), compared to the 10-year average of 469 (range 410 to 602). In the early year SWBS 148 were recorded in 37% of the 119 squares surveyed with a maximum of 50 at Almodington (Selsey) on 7 Jan. Other notable counts in the first winter period were 80 at Porthole Fm (Sidlesham) on 2 Mar, 70 in a turnip field at Midhurst on 21 Jan and 60 at Steyning WTW on 1 Jan.

The largest recorded roost was at the Lewes Railway Land LNR and consisted of 271 birds on 19 Jan, the majority of which arrived in the 20 minutes before 4.30pm. This decreased to 64 on 29 Jan with part of the roost appearing to relocate to Lewes where 80 were seen on 5 Feb. The only other 100 plus roost was 170 birds at Sandgate Park (Storrington) on 11 Jan. There were 34 roosting in reeds on the Knepp Estate on 30 Apr. In March, 31 migrants were noted at Selsey Bill with 27 N during the month and a maximum of six on 16 Mar.

Breeding was confirmed in 20 tetrads with probable breeding in 29, similar to the 46 combined confirmed and probable breeding in 2020. During the BBS birds were recorded in 78 (44%) of 177 squares. Nest building was first observed at Blackstone (Henfield) on 27 Apr, a bird with food or faecal sac was seen at Arlington Res on 2 May and the first fledglings were seen there on the 15th.

There were 52 at Rye Hbr on 1 Jul, the only large summer count until 54 at Arlington Res on 10 Aug when double-figure counts became more frequent, with 80 at Wivelsfield on 5 Oct and 110 at Offham on 21 Oct being notable.

Coastal movements peaked on 6 Oct with 51 at Selsey Bill where a total of 327 was seen in October with the majority moving west. In the late year SWBS 265 were recorded in 43% of the 157 1-km squares surveyed, (similar total to previous two years), with a maximum of 71 at Battle on 25 Nov. In the second winter period, the largest recorded roost was 30 at Broadwater (Worthing) on 30 Nov and the highest count in this period was 150 at Sidlesham on 22 Dec.

White Wagtail, *M. a. alba*

It was a good year for White Wagtails with about 68 recorded, more than twice the number in 2020. Typically for a passage migrant, most records came from coastal sites with the majority in the spring. The approximate monthly totals were as follows:

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	2	-	35	25	5	3	-	2	2	-	1	-
Average county total 2011 to 2020	<1	<1	8	10	3	1	<1	1	4	2	<1	<1

An individual appeared to overwinter at Cuckmere Haven with two records there in January and one was at Iford WTW on the 7th. The first presumed migrants were at Splash Point (Seaford) on 3 Mar with peaks of eight at Uckfield on 6 Mar and six at Cuckmere Haven on 7 Mar.

After 2020's confirmed breeding, there were no reports of nesting although three at Beachy Head in June might indicate the beginning of a summering trend. [D Brothwell]

Richard's Pipit

Anthus richardi 

Rare vagrant.

The bird found in fields adjacent to Church Farm Lane (Sidlesham) on 4 Dec 2020 remained until 4 Jan 2021. The same individual or another was at Sidlesham Ferry on 31 Mar (TE Gibson-Poole, A House *et al.*). On 3 Nov, one was photographed at Pulborough Brooks (A Baker, W Buckthorpe, CH Moore, J Moore). Assuming that the March bird was different, the county total moves on to at least 89, including a minimum of 17 this century with records from seven of the last eight years, including up to five in 2018. [P James]

Meadow Pipit

Anthus pratensis 

Common but declining resident; very common passage migrant and winter visitor. Amber listed species of medium conservation concern.

Meadow Pipits were recorded in 344 tetrads (36%), well above the 10-year average of 271 (range 207 to 334). In January counts above 40 were: 43 at Bewl Water on the 6th, 50 at Almodington on the 7th and 57 at Alciston on the 15th. In February there were 55 at Newhaven Tide Mills on the 1st, 43 at Buckhurst Park (Withyham) on the 4th and 40 at Offham (Lewes) on the 5th. During the early year SWBS the species was recorded in 18% of squares surveyed with a maximum of the 50 at Almodington.

Larger aggregations began to appear in early March with 60 at Sidlesham and 50 at Medmerry, both on the 2nd. The first counts over 100 were on the 16th: 262 N in two hours at Selsey Bill, in the Arun Valley 200 flew NE, at Worthing 564 N in 3¾ hr and 188 flew north at Iford Brooks. Selsey Bill seawatchers logged a total of 884 N during the month with the maximum of 262, mentioned above.

Breeding was confirmed in 13 tetrads and probable in a further 25. Display was noted from mid-April at various locations, the first confirmed breeding of a bird with food or faecal sac was on 5 May at Cuckmere Haven but unusually no fledged young were reported anywhere. During the BBS Meadow Pipits were encountered in 9% of squares surveyed with a maximum of eight at Thorney Island on 9 Jun.

Post breeding counts did not exceed 20 (Cuckmere Haven, Seven Sisters CP and Rye Hbr) by mid-August and it was not until the 30th that the first large movement was noted, at Selsey Bill with 470 W in 4¾ hr. In September 250 were at Beachy Head on the 16th, 200 at Rye Hbr on the 20th, 300 at Poole Place (Climping) and 170 at Beeding Hill, both on the 21st and 140 at Portslade on the 26th. The monthly total at Selsey Bill was 1683 with a maximum of 473 on the 30th. There were some large counts in October; at Selsey Bill the monthly total was 2987 with a maximum of 1102 on the 3rd. Other notable counts included 161 at Goring Gap on the 6th and 720 at Elmer Rocks (Middleton-on-Sea) on the 7th.

During the second winter period the largest counts were at an Ashdown Forest roost with 207 on 17 Nov the maximum. Elsewhere 80 were at Nyetimber (Bognor Regis) on 13 Nov, 50 at Balcombe the next day and 50 at Medmerry on the 15th. The highest December count was 35 at East Guldeford Level on the 13th with eight further counts of 20 and above. During the late year SWBS, Meadow Pipits were found in 22% of squares surveyed with a maximum of 30 at Woodhorn Fm (Birdham) on 19 Dec. [MJ Chattaway]



Tree Pipit, W Sussex, 18 May (Dorian Mason)

Tree Pipit

Anthus trivialis



Fairly common but local summer visitor; fairly common passage migrant. Red listed species of high conservation concern. Section 41.

Tree Pipits were recorded in 65 tetrads (6.7%), fewer than in 2020 and two more than the 10-year average of 63. As usual most records were from East Sussex, reflecting the species' stronghold on Ashdown Forest. The first record was of one at Lumbsden Stone (Ashdown Forest) on 29 Mar, five days earlier than the 10-year average first date, followed by two at Old Lodge LNR (Ashdown Forest) on 4 Apr. Thereafter they were seen on most days through mid-July. Nine were seen at Selsey Bill on 24 Apr.

Breeding was confirmed in six tetrads, an improvement on the two in 2020; in addition to Ashdown Forest, birds with food or faecal sac were seen at Woolbeding Common on 14 Jun and at Westdean Woods on the 16th, a family group was seen at Charlton Forest (Chichester) on 17 Jul and a fledgling was observed at Sherwood Rough (Rewell Wood) on 26 Jul. Display was first seen at West Chase (Ashdown Forest) on 23 Apr, nest building observed at Stanley Common on the 25th, a nest with young was encountered on 6 Jun at Old Lodge LNR and the first fledged young were seen on 3 Jul at West Chase. The highest counts at breeding locations were eight at Pippingford Park (Ashdown Forest) on 9 May, six at Iping Common on 31 May and six at Gills Lap (Ashdown Forest) on 25 Jun.

The first indication of autumn migration was one at Findon on 11 Aug, followed by one at Cissbury on the 16th and ten at Pett Level on the 17th, which was the peak autumn count. Elsewhere the highest counts were of five, at Cissbury on the 22nd, Worthing on the 26th and Beachy Head on 16 Sep. The last record was of one at Old Lodge LNR on 23 Oct, 11 days later than the 10-year average last date. [MJ Chattaway]

Water Pipit

Anthus spinoletta 

Scarce winter visitor and passage migrant. Amber listed species of medium conservation concern.

At Combe Valley CP (a traditional site for this species) there were two on 5 Feb, one on 5 and 13 Apr, and two on 8 Apr, whilst at West Rise Marsh (Eastbourne), another traditional site, up to seven were recorded between 27 Feb and 20 Apr when the last bird was recorded. Other records for the first half of the year were of one at Lidsey WTW (O Mitchell) and two at Horse Eye Level (Pevensey) on 1 Jan and at least one there the following day, one at Pett Level on 9 Jan, one at Henfield Levels from 25 to 29 Jan (VP Bentley *et al.*) and on 21 Feb (BD & P James), two at Beddingham on 13 Feb, one at Horse Eye Level on 14 Feb, up to three at Cuckmere Haven from 20 to 22 Feb (MR Eade *et al.*), three at Rye Hbr on 10 Mar, two at Iford Brooks on 4 Apr (AJ Williams), one at Cuckmere Haven on 10 Apr (E Sames) and two at Pulborough Brooks on 16 Apr, one remaining until the following day (C & J Moore *et al.*).

Far fewer were recorded in the second half of the year: two at West Rise Marsh on 10 Oct, one at Henfield Levels on 20 Nov (D Buckingham), four at Combe Valley CP on 9 Dec, one at Pett Level on 20 Dec, one at West Rise Marsh on 21 Dec and two there on the 31st. [P James]

Rock Pipit

Anthus petrosus 

Scarce resident and scarce winter visitor; very rare away from the coast.

Rock Pipits were recorded in 65 (6.6%) tetrads, more than in any previous year and compared to a 10-year average of 51 (range 43 to 58), with all records coming from the coast or near coastal locations. They were recorded in every month of the year at Cuckmere Haven and in 11 months at Seaford Head. The highest counts in the first winter period were 15 at Cuckmere Haven on 7 Mar with ten or more on further dates and ten at Fishbourne Channel (Chichester Hbr) on 9 Feb.

Breeding was confirmed at three sites and probable in a further eight. Display was first noted on 9 Mar at Beachy Head, nest building was seen on 1 May at Hope Gap and a bird was seen carrying food on 11 May at Seven Sisters Cliffs. The only report of fledged young was from Cuckmere Haven on 18 Aug. Post breeding the largest count was 12 on 15 Aug at Cuckmere Haven.

In the autumn and second winter period the highest count at Cuckmere Haven was 23 on 4 Nov. The only other locations with double-figure counts were 12 at Beachy Head on 16 Dec and ten at Ovingdean on 29 Oct. Elsewhere there were nine at Rottingdean on 29 Oct and Selsey Bill on 31 Oct. [MJ Chattaway]

Scandinavian Rock Pipit, *A. p. littoralis*

There were seven accepted records of this race totalling eight birds. Most were in late winter/early spring (when the race is easier to identify on plumage characteristics) comprising two at Cuckmere Haven on 21 Feb (MR Eade) and singles at Arlington Res on 9 Mar (JJ Everitt), West Rise Marsh (Eastbourne) on 9 Mar (L Pitcher) and 19 Mar (J Wooldridge), Telscombe Cliffs on 28 Mar (J Aldridge) and Cuckmere Haven on 30 Mar (CJR Barfield). The only other record was of one at Nutbourne (Chichester Hbr) on 17 Dec (P Hughes). The Arlington, West Rise Marsh and Nutbourne birds originated from Norway where they were ringed on 6 Oct 2017, 2 Apr 2019 and 31 Aug 2018 respectively. The Chichester Hbr individual has been seen in the harbour each winter since 2019.

Note that descriptions of Scandinavian Rock Pipit are no longer required. [P James]



Rock Pipit, Seaford, 2 May (Simon Linington)

Chaffinch

Fringilla coelebs ●

Abundant resident; probably very common passage migrant and winter visitor.

Chaffinches were recorded in 702 tetrads (71%), more than the 10-year average of 631. In the GBW they were found in 65% of participating gardens. Additionally, in the SWBS first winter period Chaffinches were found in 67% of squares surveyed with a maximum of 78 at Holme Fm (Stansted) on 15 Jan. The highest counts in the first winter period were at Winchelsea Marsh where 150 were noted on 4 Feb, 250 at Cadborough (Rye) on 8 Feb and at Arlington, where there were 170 on the 22nd.

Late winter and early spring movements at Hastings were, as in 2020, of good numbers. On 27 Feb there were 354 E in 3 hr; 928 E/NE in just under 6 hr on 7 Mar; 435 E/NE on 17 Mar; 812 similarly on 18 Mar, and 905 E on the 21st. The scale of these early movements may suggest a degree of under-recording in other parts of Sussex.

Breeding was confirmed in a mere four tetrads, down from 17 in 2020, but was probable or possible in another 217. In the BBS Chaffinches were found in 90% of the squares surveyed, the highest count being of 31 at Holme Fm (Stansted) on 11 Apr. The first singing male was at Pulborough Brooks on 9 Jan with territories being established throughout February. The first display was seen at Willingdon on 1 Mar, a bird with food or faecal sac was noted on 29 Apr and the first fledglings were seen on the relatively late date of 9 Jun at Winchelsea Station.

Twenty at Pagham Hbr on 19 Jun may have been the early vanguard of post-breeding dispersal whilst in August, 50 were at Stansted Forest on the 5th and 40 at Chanctonbury Ring on the 17th. There was little coastal movement reported in the autumn, except for 122 at Beachy Head on 14 Oct. However, 66 W at Crawley and 39 W at Ardingly Res on 8 Oct, 49 W at Weir Wood Res on the 10th and 40 W at Sheepcote Valley (Brighton) on the 22nd were signs of some diurnal migration. As in the spring, it is likely autumn movements are under-recorded.

There were many double-figure counts in the second winter period but only five three-figure counts, the highest being of 150 at Withyham on 19 Nov and 140 at Wivelsfield on 12 Dec. In the SWBS Chaffinches were present in 48% of squares surveyed with a maximum of 135 at Petworth on 19 Dec. [BGR Ives]



Brambling, Beachy Head, 23 March (Roger Charlwood)

Brambling

Fringilla montifringilla



Fairly common winter visitor and passage migrant. Schedule 1 species.

Bramblings were recorded in 86 tetrads (8.9%) during the year compared with the 10-year average of 65 tetrads.

During the first half of the year, the largest counts were 25 at Hartfield on 26 Jan, and from Fernhurst where double-figure counts were recorded on 16 dates with a maximum of 33 on 8 Mar. There were no records from Westdean Woods, normally a reliable site for this species. The early year SWBS did not record any Bramblings but 25 records were submitted from participating GBW

gardens, with the highest count of five at Crowborough on 11 Apr. The final spring records were singles at Henfield on 24 Apr, and Crowborough, Eastbourne and Southbourne the next day which was nine days later than the 10-year average.

One at Balcombe on 7 Oct, eight days later than the 10-year average, was the earliest returning bird and on the next day two were at Sheepcote Valley (Brighton) and one at Fairlight. There were then widespread reports during October with the highest counts being 54 at Old Lodge LNR (Ashdown Forest) on the 17th with 30 there on the 31st and 20 at Black Down on three dates from the 20th.

In November, there was a notable passage west over Brighton with 115 on the 2nd, 85 on the 3rd and 65 on the 4th. On 9 Nov, a total of 200 were seen at Friars Gate (Ashdown Forest) as part of the late year SWBS which recorded a further 30 at Petworth on 19 Dec. Apart from 20 at Black Down on the 2nd, all other November records from around the county were in single figures. In December, the largest counts were 100 at both Houghton Forest on the 12th and Earham Woods on the 14th. There were still 70 at the former location on the 22nd. Other large December counts included 60 at Arundel on the 15th and 19 at nearby Rewell Wood on the 18th. The GBW reported single Bramblings in two gardens during November and December. [M Orchard-Webb]

Hawfinch

Coccothraustes coccothraustes

Scarce or possibly very scarce breeding resident and in most years scarce passage migrant and winter visitor; occasionally more numerous. Red listed species of high conservation concern. Section 41.

There were records from 65 tetrads (6.6%), the largest ever total apart from the invasion years of 2017-18. In the first winter period the highest numbers were at Stoughton Down where 43 were seen flying towards the Westdean Woods/Monkton roost(s) on 20 Feb. Counts in this area were otherwise low, with a maximum of 12 at Monkton on 3 Mar. Records in the period came from a further seven sites, with maxima of six at Harting Down on 22 Mar, Sherwood Rough (Arundel) on 3 Jan and Burwash Weald on 29 Mar. Migrants were at Worthing GC on 8 Apr, Winchelsea on 3 May and Goring on 18 May.

Breeding season records at Westdean/Monkton included four on 14 Jun, an adult male with two juveniles on 7 Jul (the only confirmed breeding record), four on 8 Jul, then the regular post-breeding gathering: 22 on 2 Jul, 38 on 19 Aug, 70 on 20 Sep and still 55 on the 23rd. There was also a pair on the edge of a beech wood north of Chichester on 16 Apr. Other breeding/post-breeding season records included one at Pulborough Brooks on 28 May, one at Petworth on 18 Jun, two at Arundel on 20 Jun, one there on 15 Jul followed by two on 3 Sep; one at Slindon Park on 29 Aug and another at Black Down on 3 Sep. In East Sussex, there was a pair in Darwell Woods on 21 Apr, one at Flimwell on 10 Jun and one at Burwash Weald on 26 Jul.

In the late autumn and second winter period, the peak counts at Westdean/Monkton were 80 on 28 Oct and 40 on 2 Nov; thereafter the largest number there up to the end of the year was 20, on 20 Dec. At Arundel there was a maximum of nine on 13 Dec. At a newly discovered Hornbeam-rich site near Balcombe, numbers increased from three on 8 Nov to 57 on the 20th, declining thereafter to 26 on 6 Dec and 10 on the 28th.

At Penhurst Lane (Netherfield) numbers peaked at 58 on 22 Nov, with still 18 on 31 Dec. A new roost was found at Markly Wood (Heathfield) where there was a maximum of 11 on 15 Dec and there were up to five in Hornbeams at nearby Oaken Wood in November and December. The Hornbeams at Knowlands Wood (Barcombe) attracted up to 15 in the same period. Elsewhere there were single-figure counts at 24 sites, the highest being six in Stansted Forest on 2 Dec, six in Abbot's Wood on 26 Dec and five in Dallington Forest on 23 Nov. [M Mallalieu]

Bullfinch

Pyrrhula pyrrhula

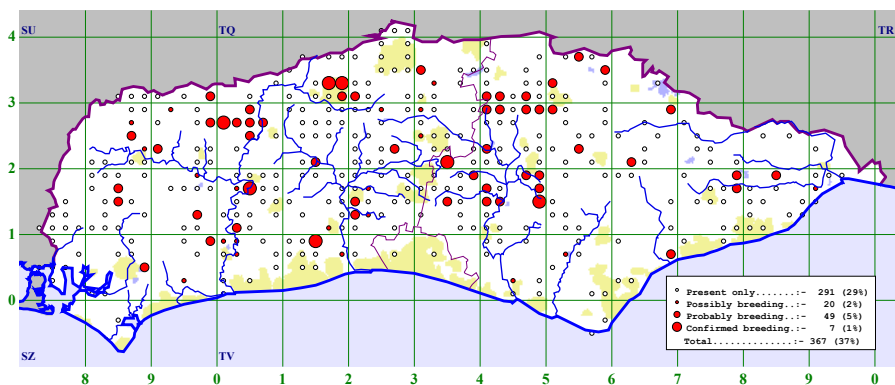


Fairly common or common resident. Amber listed species of medium conservation concern. Section 41.

Bullfinches are found right across the county and were recorded in 367 tetrads (37%), compared to the 10-year average of 360 (range 274 to 485). They were recorded in 83 (23%) of 355 gardens participating in GBW during the whole year (compared with 24% in 2020 and 33% in 2019).

In the early year SWBS, 52 were recorded from 29 (24%) of the surveyed squares compared to 12% in 2020 with a maximum of six at Fernhurst on 25 Jan. In the late year SWBS, 74 were recorded in 31 of surveyed squares (20%, compared to 18% in 2020), with a maximum of six on 14 Nov at West Lavington (Midhurst). During the BGBW on the last weekend in January, Bullfinches were recorded in 0.9% of participating gardens in West Sussex and ranked 32nd, and 1.3% of participating gardens in East Sussex and ranked 38th.

The map shows the tetrads in which Bullfinch was recorded and the symbols show the breeding status, based on that supplied with the record(s), in each tetrad. There were records of confirmed breeding in only eight tetrads, probable breeding in 49 and possible in a further 21. The first fledglings were observed on 1 Jun at Clearview Fm (Burgess Hill). During the BBS they were recorded in 21% of squares surveyed with a maximum of seven at Dallington on 12 Jun.



Bullfinches do not form flocks and the majority of records were of ones or twos. Apart from small family parties, any higher numbers reflect the size of the area recorded and/or the length of time of observations in the field. For example, Bullfinches were recorded almost every day at Pulborough Brooks with a maximum of ten noted on a 5 km route round the reserve taking 265 minutes on 15 Aug and ten counted by the same observer on a 3 km route taking 175 minutes on 27 Nov. [L Smith]

Greenfinch

Chloris chloris



Very common resident and possibly fairly common passage migrant and scarce winter visitor. Red listed species of high conservation concern.

Greenfinches were recorded in 529 tetrads (54%), compared to a 10-year average of 483. Although this is the highest tetrad occupancy since the end of the last Atlas period in 2011, the breeding and wintering data paint a very different picture. In the latest (2021) Birds of Conservation Concern assessment, Greenfinch has moved straight from the green to the red list, the only common species to do so.

In the GBW, birds were present in 61% of gardens, a slight rise from last year but well down from the 70-80% of ten years ago. In the BGBW birds were found in 7.9% of gardens in East Sussex and 10.7% in West Sussex, down from around 15 to 16% ten years ago. Several garden observers noted birds feeding on sunflower seeds, the only food mentioned.

There were 56 double-figure counts in the first winter period, including seven of over 25, the highest being pre-roost flocks of 99 at The Pells (Lewes) on 30 Jan and 53 at Arundel on the 21st, with 50 at Slonk Hill (Shoreham) on 23 Feb also notable. In the early winter SWBS they were recorded in 24% of squares surveyed, with a maximum of 12 at both Pulborough on 1 Feb and Birdham Marina (Chichester Hbr) on the 23rd. SWBS numbers have also fallen sharply and are now less than half their level at the start of this survey in 2011.

Breeding was confirmed in 15 tetrads and probable in 54, with the first singing male at Storrington on 3 Feb, display first noted at Wivelsfield on 9 Mar and nest building at Goring on the 15th. Fledged young were first recorded at Etchingham on 8 May, and were also noted at Cuckmere Haven on the late date of 29 Sep. In the BBS Greenfinches were recorded in 55% of squares surveyed, with a maximum of 11 at Thorney Island on 9 Jun.

The largest autumn flocks were 70 in a wheat field at Lewes Brooks on 27 Aug and 65 at Newhaven Tide Mills on 9 Oct, but there were no records indicating passage. During the second winter period SWBS birds were recorded in 15% of squares, with a maximum of 38 at Edburton on 28 Nov. There were 60 counts in double figures of which nine were over 25, the highest being 50 at Newhaven Tide Mills and 45 at East Head (West Wittering), both on 9 Nov. [CJR Barfield]



Greenfinch, Barcombe, 8 March (Simon Linington)

Linnet

Linaria cannabina 

Common but decreasing resident and partial migrant. Red listed species of high conservation concern. Section 41.

Linnets were recorded in 431 (45%) tetrads compared to 422 in 2020 and the 10-year average of 348. During the first quarter, there were 21 counts of 100 or more. The largest flocks were 500 at Staplefield on 13 Feb (with 450 still there on 28 Feb), 300 at Hartfield on 26 Jan, 250 at Porthole Farm (Sidlesham) on 2 Jan, 250 at Warnham on 2 Feb and 236 at The Burgh (Burpham) on 6 Feb. During the early year SWBS, Linnets were recorded in 11 (9%) 1-km squares of the 119 studied with a maximum count of 52 on 8 Jan at Steyning Round Hill.

Spring migration at Selsey Bill totalled 115 during March and April with a maximum of 26 on 30 Mar whilst at Worthing 83 there were between 7 Mar and 5 May, with a maximum of 18 on 24 Apr.

During the BBS Linnets were encountered in 72 (41%) of the squares surveyed. Breeding was confirmed in ten tetrads (13 in 2020) with probable breeding in 89 tetrads (91 in 2020). The first singing males were heard at Little Strudwick (near Balcombe) on 27 Feb and at Barcombe Cross on the following day. There were widespread reports of fledged young. Over the third quarter of the year, numbers grew steadily and in August there were seven counts of 100 or more, with highs of 200 at both Cissbury on the 14th and Climping Gap on the 23rd.

During September and October, 1100 were recorded at Selsey Bill with a maximum of 182 W on 17 Oct. At Fairlight, the highest daily count was 400 W on 7 Oct. Other high counts included 400 at Medmerry on 24 Sep, 300 at Rye Hbr on 25 Sep, 300 at Honer Fm (Pagham) on 17 Oct and 300 at Perching Sands Fm (Edburton) on 26 Oct.

During the second winter period, the largest count was 300 at Balcombe on 14 Nov. The late year SWBS counted 414 in 20 (13%) of the 1-km squares surveyed with a maximum count of 161 at Edburton on 28 Nov. [M Orchard-Webb]

Common Redpoll

Acanthis flammea 

Very scarce visitor. Amber listed species of medium conservation concern.

There were two records in 2021: one feeding with Lesser Redpolls and other finches at Fernhurst from 7 to 11 Feb (PD Matson) and one at Rusper on 4 Mar (M Farmer). The county total moves on to 139, of which 129 have been this century including 62 in 2013. [P James]

Lesser Redpoll

Acanthis cabaret 

Scarce breeder and common passage migrant and winter visitor. Red listed species of high conservation concern. Section 41.

Lesser Redpolls were recorded in 149 (16%) tetrads, slightly above the 10-year average of 120 tetrads. The GBW recorded them in 23 (6%) of the 355 gardens surveyed.

During the first winter period there were 43 counts of ten or more with the highest being 42 at Horsham on 1 Jan, 30 at Stoughton Down on 20 Feb, 30 at Old Lodge LNR (Ashdown Forest) on 27 Feb and 45 at Wivelsfield on 14 Mar.

Numbers increased significantly during April with the majority of reports from Ashdown Forest. The highest counts were 100 at Turners Hill and 200 at Paddockhurst (Worth) on the 3rd, 200 at Old Lodge LNR on the 11th and 300 at the latter site on the 14th. The BBS found Lesser Redpolls in just two (1.1%) of the squares surveyed with a maximum of 33 on 19 Apr at Ashdown Forest.

Breeding was confirmed in just one tetrad, with probable breeding identified in a further six.

Singing males were first recorded on 21 Mar at Bentley (Halland). The only fledglings seen were in Rewell Wood (Arundel) on both 29 May and 19 Jul.

Coastal migration records in October and November were poor compared to 2020 with only single-figure day counts from Selsey Bill though there were ringing totals of 72 at Whitbread Hollow (Beachy Head) between 26 Oct and 5 Nov (with a further 30 birds seen there on 2 Nov) and 42 at Charleston Reedbed between 18 Oct and 29 Nov. Additionally, 40 were at Pett Level on 6 Nov where a total of 134 were ringed. Elsewhere in October, the highest counts were 30 near Balcombe on 23 Oct with 60 there three days later.

Over the second winter period, the highest counts not covered above were 50 at Balcombe on 12 Nov and 70 at Ardingly Res on 13 Dec. The SWBS in November and December found Lesser Redpolls in five (3.2%) of the squares surveyed. [M Orchard-Webb]

Common Crossbill

Loxia curvirostra 

Irruptive species; usually a scarce visitor but fairly common in some years. Very scarce breeder in some years. Schedule 1 species.

It was an average year for Common Crossbills, recorded in 60 tetrads (6%), similar to the 10-year average of 63.

During the first winter period, the largest flocks were up to 40 at Old Lodge LNR (Ashdown Forest) on 26 Feb, Black Down on 18 Mar and Broadwater Forest on 31 Mar. Smaller numbers were recorded at their traditional sites in the north-west of Sussex, eastwards towards Ashdown Forest.

Breeding was confirmed at two locations: at Wiggonholt Common a bird was seen with food or faecal sac on 21 Apr and the next day a juvenile was seen begging for food there, and a pair with three fledglings was seen on Ashdown Forest on 19 May. The only record of coastal post-breeding movements was 12 NW over Chichester Hbr on 15 Jul.

Numbers were down in the second winter period and groups (in fewer numbers) were again restricted to their traditional sites, namely Black Down, the Worth/Tilgate area and Ashdown Forest, with the highest counts of 20 in both Worth and Tilgate Forest on 22 Nov. [MR Eade]

Goldfinch

Carduelis carduelis 

Probably fairly common resident; common summer visitor and passage migrant and fairly common winter visitor.

Goldfinches were recorded in 719 tetrads (73%), many more than the 10-year average of 611. In the GBW they were found in 85% of the gardens surveyed. In the first winter period most counts were in single or low double figures but 120 were at Bishopstone (Seaford) on 12 Feb and 100 at Arlington Res on the 22nd, with three further counts of around 50. In the SWBS they were found in 67% of squares surveyed with a maximum of 22 in three locations.

There was little confirmed spring coastal movement noted but 20 were observed heading in off the sea at Selsey Bill on 1 Apr.

Breeding was confirmed in 29 tetrads in 2021 and was probable or possible in a further 148, fewer than in 2020 but more in line with the years prior to that. In the BBS Goldfinches were found in 89% of the squares studied with a maximum of 21 at Tillington (Petworth) on 29 Apr. Nest-building was first noted on 14 Mar at Possingworth Park and the first fledglings recorded were at Christ's Hospital (Horsham) on 7 May.

Numbers increased from the end of June with eight counts of 40 or more by the end of July, the highest being 60 at Press Ridge Warren (Ashdown Forest) on 29 Jul. In August there were 16 counts

of 50 and above, the highest being 200 at Arlington Res on the 30th. Post-breeding flocks continued to be reported in the autumn, with high counts of 300 at Beachy Head on 14 Oct, the same number at Pagham Hbr on 22 Oct and 230 at Lewes Brooks on 18 Oct. The total of 2936 at Fairlight for the period as a whole was considered poor and the October total at Selsey Bill was 616 with a maximum of 115 W on the 6th.

Unlike previous years there were no large movements of Goldfinches recorded in the late autumn and second winter period. The maximum count was 400 birds inland, at Stansted Forest on 4 Nov, with eight further counts over 100 at various locations. In the late year SWBS Goldfinches were found in 70% of squares surveyed with a maximum of 95 at Petworth on 19 Dec. [BGR Ives]

Serin

Serinus serinus ●

Very scarce passage migrant; has bred. Schedule 1 species.

There were four typical records of this spring overshoot in 2021: singles flew north at Selsey Bill at 08:45 hr on 26 Apr (J Atkinson, O Mitchell, I Pitts) and at 06:20 hr and 07:02 hr on 7 May (J Atkinson, A House, BGR Ives, I Pitts *et al.*) and a female at Beachy Head on 26 May (ME & RH Charlwood). The total this century moves on to a minimum of 91. [P James]



Siskin, Battle, 7 July (David Gardiner)

Siskin

Spinus spinus ●

Common winter visitor and passage migrant. Fairly common breeder.

Siskins were recorded in 249 (26%) tetrads compared with 251 in 2020 and a 10-year average of 201 tetrads. They were encountered in 90 (25%) of gardens participating in the GBW. Over the first winter period, there were 20 counts from 15 sites (14 counts from 13 sites in 2020) where 20 or more were recorded. The highest were 50 at Old Lodge LNR (Ashdown Forest) on both 1 and 22 Mar, 45 at Sedlescombe on 9 Feb, 40 at Crowborough on 9 Feb and 40 at St Leonards Forest on 1 Mar. In April, 50 were at Turners Hill on the 3rd and 40 at Old Lodge LNR on the 7th. During the January and February SWBS just four Siskins were encountered in two (1.6%) of the squares surveyed.

The WHBBS found Siskins at four locations and the BBS found them in three squares (2%) with a maximum count of seven on 20 Apr at West Lavington (Midhurst). Breeding was confirmed in six tetrads and was probable in a further 27. The first singing male was observed at Houghton Forest on 7 Mar and fledglings were first recorded on 9 May at Haywards Heath. Numbers during the summer and early autumn months were typically in single figures with the maximum being 25 at Lordship Wood (Cripps Corner) on 20 Aug. Counts of 14 at Crowborough on 30 May and 12 at Crowborough on 29 Aug were also notable.

September was fairly quiet with the only double-figure count being of ten at Black Down on the 15th. The number of reports increased markedly during October, with the largest counts being 60 at both Burwash Weald on the 21st and at Balcombe on the 27th. Observers at Selsey Bill logged a total of 114 between 6 Oct and 10 Nov, with a peak of 24 on 9 Oct.

During the second winter period, the highest counts were 60, recorded at three locations: Stansted Forest on 4 Nov, Burton Park (Dunton) on 24 Dec and St Leonard's Forest, also on 24 Dec. In addition, there were a further 12 counts of 40 or more. The late year SWBS recorded 28 Siskins in eight (5.1%) of 1-km squares surveyed. [M Orchard-Webb]

Snow Bunting

Plectrophenax nivalis ●

Scarce passage migrant and winter visitor. Amber listed species of medium conservation concern. Schedule 1 species.

Two were seen at East Head (Chichester) on many dates between 7 Jan and 8 Feb and one was at Thorney Island on 3 Mar.

The second winter period brought a small influx including, unusually, a number of inland records: the first was at Rye Hbr on 24 and 25 Oct and then one at Westdean Woods on 31 Oct. In November one was at East Head from the 1st to the 7th, two were at Plumpton on the 8th and 11th, two at Rye Hbr between the 12th and 18th and singles at Pagham Hbr on the 14th, Jevington on the 15th, Mount Caburn (Lewes) on the 21st and at Worthing throughout the last week of the month. One flew east at Goring on 12 Dec and the last record was of a very tame male on downland at Alciston which remained from 23 Dec into the New Year but died on 6 Jan 2022. [AC Gutteridge]



Snow Bunting, Worthing, 30 November (Dorian Mason)

Corn Bunting

Emberiza calandra



Fairly common resident. Red listed species of high conservation concern. Section 41.

Corn Buntings were recorded in 101 (10%) tetrads, the highest number in recent times and above the 10-year average of 79 (range 66 to 101). Double-figure flocks were reported from ten tetrads in the first winter period, almost all from West Sussex downland where several counts exceeded 50 culminating in a remarkable flock of 185 on Beeding Hill on 29 Jan, rising to 300 on 12 Mar. The records away from this area in this period included five at Medmerry on 16 Mar, ten at Ditchling Beacon on 18 Mar, 20 at Beachy Head on 26 Mar and 30 at Scotney GP on 2 Jan.

Breeding was confirmed in 4 sites: Medmerry, Steep Down (Lancing), Falmer and Newhaven and probable in a further seven tetrads but this clearly does not reflect the true position as Corn Buntings were found during the breeding season in 79 tetrads. This includes a few records from less usual areas in West Sussex like Petworth. There were also more widespread records than usual from the small population in the Lavant Valley.

In the second winter period there were reports of double-figure flocks from 13 tetrads, the largest being 60 at Steep Down on 16 Nov and at least 63 at Woodingdean on 21 Dec. The overall picture seems to be of a slight improvement in the fortunes of this species in Sussex. [AC Gutteridge]



Yellowhammer, Medmerry, 12 May (Bob Brewer)

Yellowhammer

Emberiza citrinella ●

Common resident. Red listed species of high conservation concern. Section 41.

Yellowhammers were recorded in 395 (40%) tetrads during the year, the highest number since 2011. In the first winter period flocks in double figures were reported from 39 sites, up from 35 the previous year. The largest were 75 on 2 Jan at Sidlesham and 60 in Arundel Park on 12 Jan. Flocks of 40 and above at seven sites was an improvement on only four sites the previous year. In the early year SWBS the species was recorded in 15% of squares surveyed. The maximum count in this period was 35 on 1 Feb at Edburton (during an SWBS), but on 24 Apr 50 were present at Medmerry.

Breeding was confirmed in 13 tetrads and probable in a further 53. The first young were noted at Lurgashall on 22 May. During the BBS Yellowhammers were found in 33% of squares surveyed with a maximum of 26 at Stansted on 11 Apr.

Over the summer and the second winter period there were no significant flocks except for a splendid 100 in a cover crop at Sidlesham on 22 Dec. In the late year SWBS they were recorded in 12% of squares surveyed with a maximum of 29 at Streat (Ditchling) on 23 Nov. [AC Gutteridge]



Little Bunting, Warnham LNR, 9 April (Dorian Mason)

Little Bunting

Emberiza pusilla ●

Rare vagrant.

2021 was a very good year for this species with a total of three recorded for the first time ever. One at Warnham LNR from 10 Mar to 18 Apr (JJ Everitt, J Glossop, S Martin *et al.*), was followed by others at Crows Nest (Ashdown Forest) from 14 Nov into 2022 (A Playle *et al.*) and at Iping Common from 11 Dec into 2022 (MR Eade *et al.*). The Warnham bird was especially popular,

part of its stay coinciding with the easing of 'lockdown' restrictions, enabling many people to see it during its regular visits to a feeding station. The occurrence of two birds on heathland at sites frequented by Reed Buntings suggests that this rare but regular vagrant to the UK may well be overlooked in the county, especially in winter. The county total moves on to 22, of which 13 have been this century. Previous arrival dates have been in January (one), February (one), March (one), Apr (two), September (one), October (eight), November (four) and autumn (one). [P James]

Rustic Bunting

Emberiza rustica 

Very rare vagrant.

A first year individual was trapped and ringed at Charleston Reedbed on 13 Oct (JAG Dunlop, TW Parmenter). This is the sixth county record, following the most recent previous bird at Pett Level in 2008, which was also trapped and ringed. The record has been accepted by BBRC. [DK Campbell]

Reed Bunting

Emberiza schoeniclus 

Fairly common resident; passage migrant and winter visitor. Amber listed species of medium conservation concern. Section 41.

Reed Buntings were reported from 212 (22%) tetrads during the year compared with 205 the previous year and a 10-year average of 195 (range 165 to 225). Double-figure counts were received from 15 sites during the first winter period including 30 feeding on dead sunflowers at Hassocks on 5 Jan, 30 at Pett Level on 9 Feb, 33 at Steep Down (Lancing) on 19 Feb and 40 at Arlington on 22 Feb. The highest roost numbers were 111 at Weir Wood Res on 8 Jan and 122 at Ardingly Res on 10 Feb. In the early year SWBS the species was found in 6.7% of squares surveyed with a maximum of 12 on 1 Feb near Edburton.

Breeding was confirmed in six tetrads and probable in a further 29. Territories detected in defined areas were 27 at Rye Hbr (19 in 2020), 17 at Pagham Hbr and four at Lewes Brooks. The first fledged young were noted at Lancing on 9 Jun. During the BBS, the species was encountered in 11% of squares surveyed with a maximum of 15 on Pevensey Levels.

During the autumn a total of 76 flew over Fairlight, the highest count being 16 W on 11 Nov. In the late year SWBS Reed Buntings were found in 6.4% of squares covered with a maximum of five on 28 Dec on Pevensey Levels. Double-figure flocks were encountered at nine sites during this period, by far the largest being 100 on a cover crop at Sidlesham on 22 Dec. The roost at Weir Wood Res increased from 59 on 23 Oct to a maximum of 81 on 19 Nov. The highest count at the Ardingly Res roost was 46 on 19 Nov. [AC Gutteridge]

White-throated Sparrow

Zonotrichia albicollis 

Very rare vagrant.

A clear highlight of the year, one took up residence in Barcombe Cross from 3 Feb to 18 Apr, where many observers added it to their county or even their British lists. As well as frequently showing at close quarters, it frequently sang. This is only the second Sussex record, following one at Beachy Head in October 1968, and has been accepted by BBRC. The finders' account is on pages 207-208 of this report. [DK Campbell]



White-throated Sparrow, Barcombe, 9 April (Bethern Clyne)

ESCAPES AND INTRODUCTIONS

All records of BOU Category D and E species, primarily probable or certain escapes from captivity (but not those clearly in captivity) and introduced species without self-sustaining wild populations in the area from which the bird originated, will be welcomed by the Hon. Recorder for this annual feature. In order to track individual birds or flocks, observers are reminded to include the age, sex, hybrid evidence and any other distinctive features when submitting records.

Note that records of White Stork and White-tailed Eagle are included in the main list in recognition of the very special interest that they attract.

The following escaped or introduced birds, other than those Category C species in the main list, were recorded in the county in 2021. It should be noted that the identity of these birds is largely unchecked. Species' names and order follow IOC World Bird Names (V 12.1) available online at <http://www.worldbirdnames.org>.

Hawaiian Goose

Branta sandvicensis

Endemic to Hawaiian islands. Kept in wildfowl collections.

An individual commuted between Arlington Res and the lower Cuckmere Valley, being seen on various dates between 11 and 26 Sep.

Cackling Goose

Branta hutchinsii

Breeds in NE Russia, Alaska, northern Canada and Greenland and winters mainly in western USA. B. hutchinsii includes the subspecies hutchinsii, leucopareia, minima and taverneri.

Up to seven were in the Arundel area on various dates between March and August and a free-flying pair bred at Arundel WWT, young being seen on 13 May. One was reported near Cripps Corner on 21 Aug. One or two were at Medmerry from early August to 11 Sep and then eight were seen there on 18 Sep. One was in the lower Adur Valley on 8 Dec.

Bar-headed Goose

Anser indicus

Breeds in central Asia; migrates to northern India for winter. Commonly kept in wildfowl collections. Free flying individuals are liable to wander.

One was on Steyning Levels on 1 Jan and on Henfield Levels between 14 Feb and 12 Mar. One was at Wadhurst Park Estate on 18 Jan and another at Chichester GP on 23 Jan. One was at Partridge Green on 14 Mar, another was in the lower Cuckmere Valley on 22 Apr and presumably the same was at Iford Brooks on 26 May. Singles were at Petworth Park on 18 Aug, Arlington Res on 11 Sep, at Pulborough Brooks between 11 Sep and 5 Oct, and at Scotney GP on 10 Oct.

Emperor Goose

Anser canagicus

Breeds mainly in Alaska. Present in many wildfowl collections.

One was at Barcombe Res on 1 and 17 Jan and another was at Scotney GP on 24 Feb.

Snow Goose

Anser caerulescens

Breeds in Arctic North America, winters in southern USA and Mexico. Presumed migrants may occur in the UK in winter, usually in association with other Arctic breeding geese, but are greatly outnumbered by escaped or introduced birds. There have been no accepted records of wild birds in Sussex.

Two were at Scotney GP on 5 Feb and one was at Rye Hbr on 5 Apr.

Black Swan

Cygnus atratus

Breeds in Australia and New Zealand. Commonly kept in wildfowl collections and on ornamental lakes. Full-winged birds are liable to wander; has bred in Sussex.

The four at Cowdray Park last year were reported regularly between 18 Jan and 10 Nov and there were five there on 23 Oct. They were recorded in Chichester Hbr in all months except March and April, mostly singles, but with two on 23 Jan, 5 Feb, 25 May and 9 Sep and three on 3 and 5 May. Nearby, one was at West Ashling MP on 2 Jan, two there on 5 Feb and one on 9 Jul and between 24 and 31 Aug. Singles were in Pagham Hbr on 2 Jan, at Medmerry on 11 Feb and at Chichester GP on 16 and 23 Mar and 14 Sep. Ones were reported from various localities in the Arun Valley between Pulborough Brooks and Lyminster during April, October, November and December.

There were two at Scotney GP on 10 Oct. One on the sea at Goring on 23 Nov flew off east and was seen a little later at Worthing. Others were at Yapton (31 May), Petworth (19 Nov), Partridge Green (4 Nov), Henfield Levels (11 and 14 Mar, 30 Oct and 1 Nov), East Hoathly (24 Aug), Newhaven Tide Mills (23 Mar), Princes Park (Eastbourne) and nearby Sovereign Hbr (12 May, 3 and 14 Jun and 15 Nov), Etchingham (12 May and 15 Jul) and Rye Hbr (10 and 13 Jun).

Ruddy Shelduck*Tadorna ferruginea*

Breeds in SE Europe and across central and east Asia with naturalised populations in central Europe. Rare vagrant from wild or naturalised populations or escape from captivity.

One was seen at Combe Valley CP on 2, 6 and 9 May.

Muscovy Duck*Cairina moschata*

Native to Mexico and Central and South America. Widespread in its domesticated form.

Up to two were at Arundel Park and at nearby Swanbourne Lake in all months except July and August. Two were at Waldron on several dates in January, February and May. Singles were at Falmer Pond in every month from February to December, at Bodle Street Green on 25 Jan, Battle on 3 Feb, 19 Apr and 17 Nov, Barns Green on 15 Aug and Crowhurst on 27 Aug.

Wood Duck*Aix sponsa*

Widespread in North America

One was at Barcombe on 25 Mar, a pair at Brede High Wood on 25 Apr and one at Streat on 1 and 13 May.

Ringed Teal*Callonetta leucophrys*

South America from SE Bolivia to SE Brazil and Uruguay.

There were four at Shermanbury on 27 Feb, with two there on 27 Mar and then three on 2 May. There was also a record from nearby Partridge Green on 10 Oct with no count given.

Chiloe Wigeon*Mareca sibilatrix*

Southern part of South America.

A drake was at Hailsham on 6 Aug.

Helmeted Guineafowl*Numida meleagris*

Breeds in Africa, mostly south of the Sahara. Widely introduced and domesticated. Roosts in trees like pheasants and takes 'siesta' in shade.

The small population near Newick WTW remains, with a maximum of nine seen on 25 May. Elsewhere, up to eight were seen regularly at the Burgh (Burpham) between 25 Mar and late April with nine on 29 Apr; this site also had a record with no count on 1 Jul. There were two at Bepton on 27 Apr, two at Cocking on 7 May, five at Cowfold on 26 Jun and one at Shipley on 14 Nov. There were also records from Poling on 20 Apr and 25 May with no count given.

Reeves's Pheasant*Syrmaticus reevesii*

North and central China.

One at Chailey on several days up to 2 Apr.

Indian Peafowl*Pavo cristatus*

Wild birds are restricted to the Indian subcontinent. A traditional favourite in ornamental gardens.

Indian Peafowls were reported as follows (singles unless otherwise stated): Firlie on 13 Apr and 19 Dec (two on latter date), St Leonard's Forest on 24 Apr, Patching on 6 May and 2 Jun, Stansted on 12 May, Telham (near Crowhurst) on 24 May, Herstmonceux on 25 May, Old Lodge LNR (Ashdown Forest) on 6 and 26 Jun and 28 Oct, Owlbeech Woods (Horsham) 2 on 8 Aug, another site at Horsham on 13 Jun and Battle on 3 Nov.

African Spoonbill*Platalea alba**Sub-Saharan Africa and Madagascar.*

One was seen at Sheepcote Valley, Brighton on 28 Oct.

Violet Turaco*Musophaga violacea*

Native to West Africa from Senegal to Nigeria, isolated population in Chad and Central African Republic; occurs in tropical savannas, wetlands, woodlands and forests. Locally common but vulnerable to trapping for the pet trade.

The individual first reported in September 2018 at Tangmere was seen in Worthing on 5 and 25 Feb, 14 May and 25 Jun.

Laurel Pigeon*Columba junionae**Endemic to the Canary Islands.*

There was an interesting record of one seen at Worthing on 25 Feb, 16 Mar, 14 May and then again on 28 Dec.

Northern Bald Ibis*Geronticus eremita*

Morocco and possibly still Syria. Reintroduction projects in Morocco, Spain, Germany, Austria and Italy. Semi-wild population in Turkey.

One at Staplefield on 15 Oct was then apparently seen at several other locations and then at Beachy Head on 2 Nov.

Great Horned Owl*Bubo virginianus**North, Central and South America.*

One was at the Knepp Estate on 31 May and again on 28 Oct, and one was at Cocking on 14 Jun and again on 19 Dec.

Sulphur-crested Cockatoo*Cacatua galerita**New Guinea to Australia.*

One was seen at Old Lodge LNR on 16 Aug where it was pursued by two Hobbies.

Lord Derby's Parakeet*Psittacula derbiana**Indian subcontinent and SE Asia.*

A female was seen at Seaford on various dates between 27 Aug and 28 Sep. One, presumably the same, was at Shoreham-by-Sea on 11 Oct.

Alexandrine Parakeet*Psittacula eupatria**Indian subcontinent and SE Asia.*

One was seen at Shoreham-by-Sea on various dates between 20 Oct and 28 Dec.

Red-billed Leiothrix*Leiothrix lutea*

Himalayas to E China and NE Vietnam. Introduced elsewhere in the world including Europe where breeds France, Italy, Spain and Portugal. Recently recorded in England.

One was seen in a large garden in Heathfield during the summer (no dates provided).



Blackbird, Cuckmere Haven, 21 June (Chris Barfield)

Breeding Bird Survey (BBS) Results for Sussex 2017-2021

For each species recorded, the number (n) of BBS squares in which that species was recorded in Sussex and the percentage (%) of the total number of BBS squares surveyed in which that species was recorded are shown in the table below, for the period 2017-2021. Species which have only been recorded in single squares have been omitted from the list, but are included in the total numbers of species recorded. Red and amber listed species of conservation concern are shown in the relevant colours in column 1.

		Year (and total no. of squares surveyed)									
		2017 (172)		2018 (174)		2019 (170)		2020 (128)		2021 (176)	
		n	%	n	%	n	%	n	%	n	%
	Red-legged Partridge	27	16	23	13	25	15	9	7	26	15
	Grey Partridge	3	2	-	-	1	1	1	1	-	-
	Pheasant	143	83	148	85	134	79	84	65	145	82
	Canada Goose	38	22	39	22	33	19	20	16	47	27
	Greylag Goose	13	8	19	7	14	8	12	9	24	14
	Greylag Goose (domestic)	1	1	-	-	2	1	1	1	2	1
	Mute Swan	18	10	18	10	19	11	13	10	19	11
	Egyptian Goose	5	3	6	3	9	5	4	3	9	5
	Shelduck	3	2	9	5	7	4	2	2	7	4
	Mandarin Duck	5	3	5	3	2	1	3	2	6	3
	Gadwall	4	2	5	3	4	2	-	-	5	3
	Mallard	71	41	77	44	70	41	39	31	75	43
	Mallard (domestic)	1	1	1	1	-	-	-	-	1	1
	Tufted Duck	6	3	5	3	4	2	2	2	4	2
	Swift	1	1	2	1	5	3	3	3	2	1
	Cuckoo	33	19	40	23	34	20	14	11	33	19
	Feral Pigeon	27	16	29	16	32	19	22	17	35	20
	Stock Dove	66	38	70	41	70	41	51	40	86	49
	Woodpigeon	172	100	170	98	169	99	124	97	176	100
	Collared Dove	106	62	110	63	93	55	71	55	97	55
	Turtle Dove	2	1	3	2	2	1	-	-	2	1
	Moorhen	41	24	49	28	43	25	31	24	48	27
	Coot	21	3	23	13	23	14	15	12	17	10
	Little Grebe	6	3	7	4	5	3	2	2	6	3
	Great Crested Grebe	4	2	3	2	3	2	2	2	5	3
	Oystercatcher	2	1	4	2	4	2	1	1	4	2
	Lapwing	16	9	15	9	12	7	7	5	8	5
	Whimbrel	1	1	-	-	1	1	-	-	2	1
	Curlew	4	2	2	1	3	2	2	2	5	3
	Redshank	3	2	5	3	6	4	2	2	2	1
	Black-headed Gull	16	9	15	9	18	11	8	6	18	10
	Mediterranean Gull	5	3	4	2	-	-	-	-	2	1

		Year (and total no. of squares surveyed)									
		2017 (172)		2018 (174)		2019 (170)		2020 (128)		2021 (176)	
		n	%	n	%	n	%	n	%	n	%
	Common Gull	3	2	-	-	3	2	-	-	2	1
	Great Black-backed Gull	5	3	4	2	3	2	1	1	5	3
	Herring Gull	59	34	48	28	62	36	33	26	64	36
	Lesser Black-backed Gull	9	5	4	2	10	6	7	5	9	5
	Sandwich Tern	-	-	2	1	-	-	-	-	2	1
	Common Tern	1	1	1	1	2	1	1	1	2	1
	Cormorant	8	5	11	6	4	2	1	1	8	5
	Grey Heron	18	10	21	12	17	10	13	10	23	13
	Little Egret	5	3	6	3	7	4	5	4	9	5
	Sparrowhawk	5	3	4	2	2	1	2	2	8	5
	Marsh Harrier	-	-	-	-	-	-	-	-	2	1
	Red Kite	-	-	2	1	3	2	1	1	3	2
	Common Buzzard	51	30	53	31	61	36	33	26	57	32
	Barn Owl	2	1	3	2	2	1	3	2	2	1
	Tawny Owl	4	2	8	5	8	5	6	5	11	6
	Little Owl	2	1	3	2	-	-	2	2	4	2
	Kingfisher	1	1	-	-	1	1	-	-	1	1
	Lesser Spotted Woodpecker	-	-	-	-	-	-	-	-	-	-
	Great Spotted Woodpecker	115	67	118	68	116	68	76	60	120	7
	Green Woodpecker	112	65	102	59	84	49	46	36	105	60
	Kestrel	24	14	29	17	22	13	19	15	19	11
	Hobby	1	1	1	1	-	-	1	1	1	1
	Peregrine	-	-	-	-	1	1	2	2	2	1
	Jay	71	41	71	41	77	45	31	24	56	32
	Magpie	153	89	148	85	146	86	99	56	155	88
	Jackdaw	140	81	136	78	138	81	86	67	140	80
	Rook	83	48	83	48	87	51	40	31	79	45
	Carrion Crow	167	97	166	95	165	97	118	92	167	95
	Raven	4	2	7	4	9	5	8	6	15	9
	Coal Tit	59	34	68	39	65	38	24	19	52	30
	Marsh Tit	15	9	21	12	23	14	7	5	16	9
	Blue Tit	170	99	171	98	162	96	117	91	168	95
	Great Tit	161	94	170	98	162	95	104	81	166	94
	Woodlark	3	2	1	1	3	2	4	3	8	5
	Skylark	71	41	74	43	73	43	60	47	88	50
	Swallow	48	28	44	25	55	32	31	24	32	18
	House Martin	7	4	6	3	9	5	5	4	3	2
	Cetti's Warbler	11	6	13	7	14	8	10	8	18	10
	Long-tailed Tit	83	48	83	48	91	54	29	23	81	46
	Willow Warbler	40	23	23	13	29	17	14	11	20	11
	Chiffchaff	158	92	159	91	147	86	102	80	152	86
	Sedge Warbler	10	6	9	5	12	7	8	6	11	6

		Year (and total no. of squares surveyed)									
		2017 (172)		2018 (174)		2019 (170)		2020 (128)		2021 (176)	
		n	%	n	%	n	%	n	%	n	%
	Reed Warbler	20	12	20	11	21	12	17	13	20	11
	Blackcap	145	84	150	87	154	90	102	80	157	89
	Garden Warbler	30	17	30	17	33	19	24	19	37	21
	Lesser Whitethroat	22	13	22	13	24	14	13	10	18	10
	Whitethroat	104	60	97	56	97	57	82	64	94	53
	Firecrest	5	3	4	2	5	3	3	2	13	7
	Goldcrest	85	49	65	37	68	40	35	27	77	44
	Wren	169	98	168	96	164	96	124	97	169	96
	Nuthatch	84	49	93	53	89	52	42	33	85	48
	Treecreeper	47	27	40	23	38	22	20	16	40	23
	Starling	103	60	99	57	109	6	66	52	119	68
	Blackbird	171	99	174	100	169	99	125	98	173	98
	Song Thrush	149	87	150	86	148	87	96	75	148	84
	Mistle Thrush	49	28	52	30	48	28	30	23	58	33
	Spotted Flycatcher	5	3	5	3	5	3	4	3	6	3
	Robin	170	99	170	98	163	96	118	92	174	99
	Nightingale	14	8	12	7	12	7	7	6	15	9
	Common Redstart	2	1	-	-	2	1	-	-	3	2
	Stonechat	6	3	5	3	8	5	4	3	14	8
	Wheatear	7	4	11	6	4	2	1	1	8	5
	House Sparrow	130	75	133	76	128	75	93	73	131	74
	Dunnock	146	85	145	83	150	88	93	73	150	85
	Yellow Wagtail	2	2	2	2	2	1	1	1	2	1
	Grey Wagtail	6	3	8	5	12	7	5	4	11	6
	Pied/White Wagtail	63	37	64	37	70	41	32	25	66	37
	Meadow Pipit	13	8	10	6	12	7	9	7	14	8
	Tree Pipit	2	1	2	1	2	1	-	-	2	1
	Chaffinch	163	95	157	90	156	92	102	80	157	89
	Bullfinch	57	34	41	24	39	23	17	14	36	20
	Greenfinch	98	57	94	54	94	55	55	43	95	54
	Linnet	55	32	57	33	53	31	36	28	63	6
	Lesser Redpoll	-	-	1	1	-	-	-	-	1	1
	Common Crossbill	-	-	-	-	-	-	-	-	-	-
	Goldfinch	132	78	136	78	148	87	91	71	149	85
	Siskin	4	2	5	3	8	5	1	1	3	2
	Corn Bunting	3	2	6	3	7	4	7	5	6	3
	Yellowhammer	56	33	59	34	60	35	42	33	57	32
	Reed Bunting	18	11	22	13	20	11	18	14	20	11
	Number of species	147		127		121		111		125	

Breeding Bird Survey (BBS)

Sussex population trends 1994 - 2021

Sussex BBS population trends for 1994-2021 are shown in the table below, along with those for 2019-2021. Statistically significant trends are indicated by an asterisk in the 'sig' columns. The size of the difference between the upper 95% confidence limit (UCL) and the lower 95% confidence limit (LCL) for each trend gives an indication of the precision of the trend. The sample size is the mean number of squares per year in which each species was recorded during 1994-2021.

		Sample size	% change 1994-2021	sig	LCL	UCL	% change 2019-2021	sig	LCL	UCL
	Blackbird	106	-2		-13	11	-1		-7	4
	Blackcap	87	186	*	127	257	-12	*	-19	-4
	Blue Tit	103	5		-16	27	-1		-9	7
	Carriion Crow	104	67	*	25	120	-8		-28	22
	Chaffinch	102	-64	*	69	-58	-16	*	-25	7
	Chiffchaff	91	58	*	24	112	5		-5	5
	Coal Tit	33	8		-30	81	-30	*	-51	-10
	Collared Dove	65	-22		-43	23	8		-8	26
	Cuckoo	32	-80	*	-87	-69	-15		-41	22
	Dunnock	89	-15		-32	9	-12		-23	0
	Goldcrest	42	21		-23	84	9		-16	44
	Goldfinch	76	224	*	136	368	-13		-23	0
	GS Woodpecker	70	147	*	94	246	-6		-23	19
	Great Tit	101	27	*	8	60	-15	*	-23	-7
	Green Woodpecker	70	-1		-22	18	20		-1	52
	Greenfinch	76	-71	*	-79	-62	-5		-22	19
	House Sparrow	79	3		-26	42	14		-1	28
	Jackdaw	86	143	*	66	297	4		-12	20
	Jay	49	-29		-53	1	-22		-39	4
	Linnet	39	14		-33	68	1		-38	47
	Long-tailed Tit	49	-37		-56	3	-33	*	-49	-12
	Magpie	95	24	*	1	54	5		-6	17
	Mallard	59	160	*	26	485	-5		-23	24
	Mistle Thrush	37	-46	*	-64	-7	48	*	-13	101
	Moorhen	37	-34		-60	9	25		-3	59
	Nuthatch	50	21		-14	68	-24	*	-37	-5
	Pheasant	86	79	*	46	121	14		-6	35
	Pied Wagtail	46	17		-16	82	-6		-28	19
	Robin	104	12		-6	33	11	*	5	20
	Rook	59	27		-23	106	6		-25	43
	Skylark	56	-15		-47	39	28	*	9	47
	Song Thrush	93	-3		-23	26	11		0	22
	Starling	75	-59	*	-71	-45	-10		-37	21
	Stock Dove	39	72		0	383	5		-16	35
	Swallow	71	-14		-40	27	-27	*	-41	-8
	Swift	31	-83	*	-93	-62	0		-46	20
	Whitethroat	63	8		-26	59	-4		-17	14
	Woodpigeon	106	52	*	24	87	2		-7	13
	Wren	102	-4		-18	20	-5		-11	1
	Yellowhammer	44	-32		-61	10	19		-13	51



Goldfinches, by Robert Greenhalf

Sussex Winter Bird Survey (SWBS) results Nov 2019 - Feb 2022

Christine George

The Sussex Winter Bird Survey (SWBS) was set up by the Sussex Ornithological Society in November 2011 with the aim of monitoring annual fluctuations in winter populations of common birds. Since then, the survey has been repeated annually, with the winter of 2021-2022 being the eleventh winter for the survey. Standardised counts from randomly-distributed 1-km squares form the basis of this survey, with many of these squares also being surveyed annually in the breeding season for the national Breeding Bird Survey (BBS), organised by the British Trust for Ornithology (BTO). As with BBS, birds are recorded along the same route (2 x 1-km transects) twice every winter.

The results of the past three winters are shown in Table 1 below. The first column ‘Rank 2021/22’ shows each species ranked by the percentage of 1-km squares in which they were recorded during winter 2021/22, with the most frequently recorded species being ranked 1. Only those species recorded in at least thirty surveyed 1-km squares have been included. The figure in parentheses is the mean ranking for all eleven winters.

For each ‘winter’ there are three columns:

Column 1 (Total squares) is the total number of 1-km squares surveyed for SWBS in which that species was recorded.

Column 2 (% of squares) is the percentage of 1-km squares surveyed for SWBS in which that species was recorded.

Column 3 (Mean/sq visit) is the mean encounters per single visit to a surveyed 1-km square. This number is derived from the total number of encounters over the two surveys, divided by the total number of squares surveyed that year, and further divided by two.

Both column 2 and column 3 facilitate year to year comparison.

Table 1. Comparative results for the commonest species, recorded in at least thirty surveyed squares.

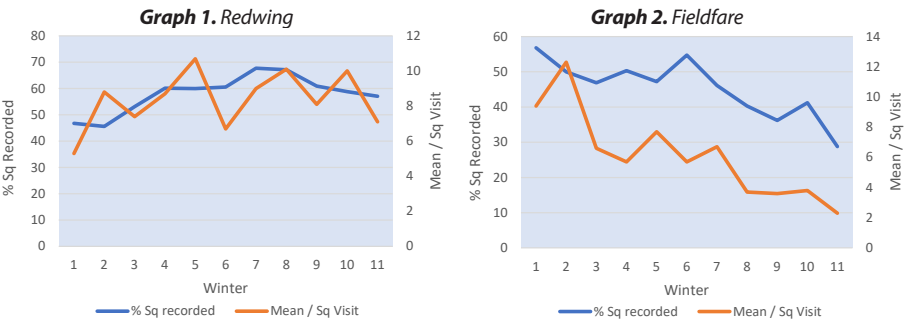
		WINTER 9 (2019/20)			WINTER 10 (2020/21)			WINTER 11 (2021/22)		
1-km Squares surveyed		138			153			163		
Number of observers		90			97			106		
Species recorded (Inc escape/feral)		118			115			119		
Rank 2021/22	Species	Total squares	% of squares	Mean/sq visit	Total squares	% of squares	Mean/sq visit	Total squares	% of squares	Mean/sq visit
1 (1)	Woodpigeon	136	99	42.7	149	97	30	163	100	31.4
2 (2)	Blackbird	132	96	8.7	150	98	7.7	161	99	8.4
3 (4)	Blue Tit	133	96	11.0	143	94	9.0	158	97	10.9
4 (3)	Carrion Crow	136	99	10.9	152	99	10.0	157	96	9.4
5 (5)	Robin	135	98	8.7	150	98	8.1	157	96	8.6
6 (7)	Magpie	131	95	4.5	146	95	4.3	154	95	4.3
7 (6)	Great Tit	126	91	5.3	133	87	4.4	150	92	5.1
8 (10)	Jackdaw	119	86	17.5	131	86	15.6	146	90	15.8
9 (8)	Wren	122	88	2.7	133	87	2.6	145	89	2.7
10 (13)	Goldfinch	101	73	4.2	117	77	4.3	129	79	5.3

Rank 2021/22	Species	WINTER 9 (2019/20)			WINTER 10 (2020/21)			WINTER 11 (2021/22)		
		Total squares	% of squares	Mean/ sq visit	Total squares	% of squares	Mean/ sq visit	Total squares	% of squares	Mean/ sq visit
11 (11)	Dunnoch	105	76	1.8	123	80	2.0	126	77	1.6
12 (13)	Starling	101	73	36.2	116	76	23.8	124	76	26.3
13 (12)	Song Thrush	112	81	1.7	115	75	1.6	121	74	1.4
14 (18)	Buzzard	93	67	1.0	100	65	0.8	121	74	0.9
15 (17)	Herring Gull	94	68	14.1	104	68	8.8	116	71	8.9
16 (15)	House Sparrow	95	69	6.7	109	71	7.7	114	70	6.8
17 (10)	Chaffinch	99	72	3.1	105	69	2.9	114	70	4.1
18 (18)	GS Woodpecker	90	65	0.9	98	64	0.9	112	69	0.9
19 (17)	Pheasant	94	68	4.2	94	61	2.4	99	61	2.1
20 (21)	Jay	77	56	0.7	76	50	0.7	97	60	0.6
21 (22)	Rook	81	59	11.4	78	51	10.0	94	58	13.1
22 (23)	Redwing	84	61	8.1	90	59	10.0	93	57	7.1
23 (20)	Long-tailed Tit	92	67	2.2	82	54	1.9	91	56	1.9
24 (25)	Pied Wagtail	71	51	2.4	87	57	2.0	90	55	1.3
25 (24)	Gr Woodpecker	72	52	0.6	76	50	0.5	90	55	0.5
26 (25)	B-h Gull	70	51	16.7	74	48	8.7	82	50	10.5
27 (30)	Nuthatch	69	50	1.0	68	44	0.7	82	50	0.7
28 (27)	Goldcrest	78	57	0.8	69	45	0.7	81	50	0.8
29 (29)	Collared Dove	58	42	1.1	65	43	1.3	69	42	1.0
30 (32)	Mallard	51	37	2.9	50	32.7	3.0	65	40	2.3
31 (36)	Skylark	48	35	1.9	54	35	2.1	57	35	1.1
32 (37)	Stock Dove	46	33	1.0	48	31	1.4	56	34	1.3
33 (35)	Kestrel	52	38	0.3	57	37	0.3	52	32	0.2
34 (29)	Greenfinch	53	38	0.8	44	29	0.6	50	31	0.6
35 (35)	Mistle Thrush	47	34	0.4	62	40.5	0.5	50	31	0.4
36 (31)	Fieldfare	50	36	3.6	63	41	3.8	47	29	2.3
37 (34)	Coal Tit	48	35	0.5	47	30.7	0.4	47	29	0.5
38 (35)	Bullfinch	40	29	0.4	42	27.5	0.4	47	29	0.4
39 (40)	Meadow Pipit	43	31	2.3	48	31	2.0	45	28	0.9
40 (40)	Moorhen	41	30	0.6	26	17	0.4	42	26	0.6
41 (42)	Feral Pigeon	37	27	3.1	35	23	4.7	40	25	2.3
42 (40)	Treecreeper	33	24	0.2	32	21	0.2	38	23	0.2
43 (55)	Raven	24	17	0.2	31	20	0.2	34	21	0.2
44 (44)	Common Gull	23	17	4.5	27	17.6	2.7	32	20	2.9
45 (51)	Canada Goose	12	9	1.2	17	11	1.4	31	19	5.5
46 (45)	Yellowhammer	26	19	0.6	28	18	0.8	31	19	0.4
47 (46)	Cormorant	26	18.8	0.3	31	20	0.3	31	19	0.4

By way of illustration, data has been extracted from all years of SWBS, for wintering thrushes and for two increasing species to show the trends over the last eleven years.

On the graphs below for wintering thrushes, the blue line shows the percentage of 1-km squares in which the species was recorded for each of the eleven winters of the survey. (Table 1, column 2) and the orange line, the mean encounters per single survey visit (Table 1, column 3).

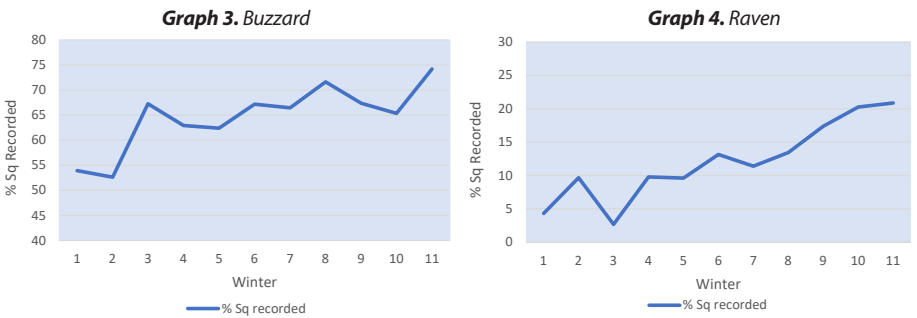
Redwing and Fieldfare, both winter visitors to Sussex, continue to show contrasting results in both the number of 1-km squares in which they have been recorded and also the mean encounters per square visit. Overall Redwing, though a little erratic in numbers, shows a fairly stable wintering population and is being encountered more frequently both in terms of square percentages and counts (Graph 1) than Fieldfare (Graph 2). SWBS data for Fieldfare is showing a gradual decline in the wintering population with both the percentage of squares in which the species is recorded and the number of birds being recorded per mean survey visit demonstrating a downward trend.



Two species which the SWBS data suggests are increasing are Buzzard and Raven. SWBS data from winter 1 (2011-12) shows Buzzard as being recorded in 54% of surveyed 1-km squares. Last winter (winter 11, 2021-22) this species was recorded in 74% of surveyed 1-km squares (Graph 3).

Raven, although less frequently recorded than Buzzard, has also shown a notable increase in the number of 1-km squares in which the species was recorded, rising from just 4% of surveyed 1-km squares to 21% of surveyed 1-km squares (Graph 4).

On the graphs for Buzzard and Raven the blue line shows the percentage of 1-km squares in which the species was recorded for each of the eleven winters of the survey. Please note the different percentage range on the vertical axis for these species.



A table containing results for all species encountered, for each of the eleven years of the survey, is available on the Sussex Ornithological Society website or by application to the SWBS organiser at sussex.wbs@gmail.com (only available as an excel spreadsheet).

Other species recorded during SWBS, but occurring in 29 or less surveyed 1-km squares are shown in Table 2.

Table 2. Other species encountered during SWBS 2021/22, along with the number of squares (in parentheses) in which that species was encountered. Shown in alphabetical order.

Blackcap (3)	Great Black-backed Gull (7)	Marsh Tit (22)
Brambling (5)	Great Crested Grebe (4)	Mediterranean Gull (7)
Brent Goose (4)	Great White Egret (1)	Merlin (3)
Cetti's Warbler (7)	Green Sandpiper (1)	Mute Swan (21)
Chiffchaff (13)	Grey Heron (26)	Oystercatcher (6)
Common Crossbill (3)	Grey Partridge (1)	Peregrine Falcon (5)
Common Pochard (1)	Grey Plover (1)	Red Kite (14)
Common Redshank (5)	Grey Wagtail (12)	Red-breasted Merganser (1)
Common Shelduck (4)	Greylag Goose (14)	Red-legged Partridge (13)
Common Snipe (4)	Greylag Goose (Domestic) (4)	Red-throated Diver (1)
Coot (14)	Hawfinch (1)	Reed Bunting (17)
Corn Bunting (4)	Indian Peafowl (2)	Shoveler (4)
Curlew (7)	Kingfisher (1)	Siskin (21)
Dartford Warbler (2)	Knot (1)	Snow Bunting (1)
Dunlin (1)	Lapwing (9)	Sparrowhawk (20)
'Escape' Species (3)	Lesser Black-backed Gull (4)	Tawny Owl (5)
Egyptian Goose (11)	Lesser Redpoll (7)	Tufted Duck (6)
Eurasian Stonechat (27)	Linnet (27)	Turnstone (2)
Eurasian Teal (10)	Little Egret (12)	Water Rail (2)
Eurasian Wigeon (8)	Little Grebe (6)	White Stork (1)
Firecrest (7)	Little Owl (2)	White-fronted Goose (2)
Gadwall (3)	Mallard (Domestic) (2)	Woodcock (3)
Goshawk (1)	Marsh Harrier (1)	Woodlark (4)



Song Thrush, Beachy Head, 11 February (Roger Charlwood)

Arrival and departure dates of summer visitors, 2021

	First recorded date			Last recorded date		
	2021	1960 - 2020	10-yr average ($\pm$ SD in days)	2021	1960 - 2020	10-yr average ($\pm$ SD in days)
Garganey	17 Mar	02 Feb	14 Mar (± 9)	23 Oct	17 Dec	24 Sep (± 20)
Quail	08 Jun	06 Feb	20 May (± 28)	29 Aug	15 Nov ²	19 Aug (± 39)
Nightjar	07 May	14 Apr ¹⁴	06 May (± 9)	06 Sep	05 Nov	14 Sep (± 10)
Common Swift	21 Apr	07 Apr	13 Apr (± 4)	08 Oct	24 Nov	29 Sep (± 14)
Common Cuckoo	29 Mar	21 Mar ⁴	02 Apr (± 6)	06 Sep	23 Oct ⁵	12 Sep (± 14)
Turtle Dove	10 Apr	05 Feb	15 Apr (± 10)	30 Sep	18 Dec	01 Oct (± 17)
Little Ringed Plover	06 Mar ¹	06 Mar	14 Mar (± 5)	22 Sep	08 Oct	20 Sep (± 9)
Wood Sandpiper	28 Apr	11 Feb	04 May (± 14)	20 Sep	16 Nov	30 Sep (± 22)
Little Tern	30 Mar ¹	01 Apr	06 Apr (± 3)	15 Sep	04 Nov	17 Sep (± 11)
Roseate Tern	05 May	17 Apr	07 May (± 14)	10 Aug	05 Oct	07 Oct (± 24)
Common Tern	26 Mar	14 Mar	24 Mar (± 6)	14 Nov	26 Nov	20 Oct (± 15)
Arctic Tern	19 Apr	24 Mar	06 Apr (± 6)	17 Nov	31 Dec	13 Oct (± 24)
Common/Arctic Tern	31 Mar	10 Mar	01 Apr (± 4)	29 Sep	31 Dec	01 Oct (± 9)
Black Tern	24 Apr	09 Mar	15 Apr (± 15)	28 Sep	16 Nov ³	25 Sep (± 13)
Pomarine Skua	21 Apr	10 Mar	21 Apr (± 5)	-	31 Dec	30 Oct (± 39)
Osprey	09 Mar	04 Mar	22 Mar (± 11)	30 Oct	09 Dec	25 Oct (± 9)
Wryneck	22 Apr	22 Mar ¹⁸	15 Apr (± 8)	21 Sep	02 Nov ⁶	06 Oct (± 14)
Hobby	25 Mar	21 Mar	02 Apr (± 5)	16 Oct	09 Nov	23 Oct (± 6)
Sand Martin	27 Feb ¹	27 Feb	11 Mar (± 6)	09 Oct	01 Dec ⁷	24 Oct (± 9)
Barn Swallow	17 Feb	04 Feb ¹⁷	05 Mar (± 14)	31 Dec ¹	28 Dec ¹⁷	05 Dec (± 14)
House Martin	15 Mar	01 Feb	19 Mar (± 7)	13 Nov	31 Dec	20 Nov (± 18)
Wood Warbler	04 Apr ¹	07 Apr	24 Apr (± 9)	16 Aug	07 Oct	09 Sep (± 15)
Willow Warbler	23 Mar	04 Mar	16 Mar (± 5)	22 Oct	27 Nov	21 Oct (± 6)
Sedge Warbler	29 Mar	17 Mar	29 Mar (± 8)	14 Oct	01 Nov	15 Oct (± 7)
Reed Warbler	01 Apr ¹	02 Apr	07 Apr (± 4)	18 Oct	01 Dec	28 Oct (± 12)
Grasshopper Warbler	03 Apr	02 Apr	09 Apr (± 5)	09 Oct	01 Nov	06 Oct (± 7)
Garden Warbler	06 Apr	28 Mar	05 Apr (± 6)	07 Oct	16 Nov	13 Oct (± 14)
Lesser Whitethroat	11 Apr	04 Apr	09 Apr (± 4)	13 Oct	18 Nov ¹⁰	17 Oct (± 13)
Common Whitethroat	30 Mar	19 Mar	04 Apr (± 4)	03 Nov	17 Dec	30 Oct (± 23)
Ring Ouzel	29 Mar	04 Feb ¹¹	23 Mar (± 19)	19 Nov	26 Dec	13 Nov (± 13)
Spotted Flycatcher	02 May	10 Apr ¹⁵	24 Apr (± 6)	09 Oct	18 Nov	10 Oct (± 6)
Common Nightingale	02 Apr	21 Mar	05 Apr (± 3)	06 Sep	14 Oct ¹²	12 Sep (± 14)
Pied Flycatcher	01 Apr ¹	01 Apr	11 Apr (± 6)	24 Sep	01 Nov	03 Oct (± 12)
Common Redstart	29 Mar	05 Mar	29 Mar (± 11)	29 Sep	26 Dec	29 Oct (± 24)
Whinchat	20 Apr	18 Feb	05 Apr (± 12)	24 Oct	02 Dec	27 Oct (± 10)
Northern Wheatear	28 Feb	13 Feb	08 Mar (± 7)	04 Nov	31 Dec	09 Nov (± 11)
Yellow Wagtail	30 Mar	12 Feb	27 Mar (± 9)	25 Oct	23 Nov ¹³	27 Oct (± 11)
Tree Pipit	29 Mar	24 Mar ¹⁶	03 Apr (± 5)	23 Oct	09 Nov	12 Oct (± 7)

Notes: ¹ county record early or late date; ² excludes historic December records; ³ excludes one in Cuckmere Valley 13-21 Nov 1954; ⁴ excludes one at Fairlight Cove on 15 Mar 1936; ⁵ excludes one at Goodwood on 11 Nov 1928; ⁶ excludes one at the Crumbles on 5 Nov 1947; ⁷ excludes record from unknown location on 5 Dec

1911; ¹⁰ excludes one at Burgess Hill on 21 Nov 1957 and known wintering birds; ¹¹ excludes one at Mannings Heath on 2 Feb 1905 and the wintering individual at Cuckmere Haven 22 Jan 2020 to 2 Mar; ¹² excludes one at North Bersted on 19 Oct 1943; ¹³ excludes one at Sidlesham between 11 Dec 1960 and 14 Jan 1961; ¹⁴ excludes one at Pulborough on 8 Apr 1912; ¹⁵ excludes one at Hastings on 8 Apr 1909; ¹⁶ excludes record from unknown location on 17 Mar 1922; ¹⁷ excludes wintering one at Newick 2013-14 and at Firle 2019-20; ¹⁸ excludes one on 9 Mar 1908 and on 10 Mar 1918 both at Pulborough.

Departure and arrival dates of winter visitors, 2021

	Last recorded date			First recorded date		
	2021	1960 - 2020	10-yr average ($\pm$ SD in days)	2021	1960 - 2020	10-yr average ($\pm$ SD in days)
White-fronted Goose	29 May ¹	25 May	04 Apr (± 22)	04 Sep ¹	12 Sep	26 Oct (± 27)
Bewick's Swan	22 Feb	26 Apr	28 Feb (± 7)	09 Dec	06 Oct	19 Nov (± 16)
Velvet Scoter	28 Apr	15 Jun	12 May (± 12)	02 Oct	02 Aug	16 Oct (± 13)
Long-tailed Duck	17 Apr	14 Jun	23 Apr (± 40)	18 Nov	12 Aug	28 Oct (± 12)
Goldeneye	25 Apr	31 May	18 Apr (± 24)	10 Oct	06 Aug	21 Oct (± 15)
Smew	12 Feb	24 Apr	04 Mar (± 20)	03 Dec	22 Oct	30 Nov (± 20)
Goosander	11 May	23 Jun	20 Apr (± 44)	21 Oct	01 Sep	15 Oct (± 21)
Red-necked Grebe	04 Apr	19 Jun	11 Apr (± 28)	08 Nov	13 Aug ²	23 Oct (± 28)
Purple Sandpiper	23 May	4 Jun	28 Apr (± 16)	28 Oct	1 Jul	05 Oct (± 33)
Jack Snipe	30 Apr	19 May	12 Apr (± 15)	10 Oct	11 Aug	01 Oct (± 27)
Black-throated Diver	21 May	21 Jun	17 May (± 9)	15 Oct	03 Aug	14 Oct (± 19)
Great Northern Diver	02 Jun	21 Jun	01 Jun (± 7)	28 Sep	16 Sep	19 Oct (± 13)
Hen Harrier	13 Jun	19 Jun	23 May (± 12)	22 Sep	4 Aug ⁶	22 Aug (± 11)
Great Grey Shrike	-	5 May ⁴	26 Mar (± 24)	-	26 Sep ³	19 Oct (± 16)
Redwing	23 May	26 May ⁵	14 Apr (± 11)	22 Aug	6 Aug	18 Sep (± 17)
Fieldfare	27 Apr	5 Jun	21 Apr (± 5)	05 Oct	6 Aug	28 Sep (± 7)
Water Pipit	17 Apr	28 May	07 Apr (± 14)	10 Oct	1 Sep	22 Oct (± 11)
Brambling	25 Apr	12 May	16 Apr (± 10)	07 Oct	3 Sep	22 Sep (± 5)
Snow Bunting	03 Mar	09 Jun	05 Mar (± 38)	24 Oct	17 Sep	27 Oct (± 17)

Notes: ¹ earliest or latest county record; ² excludes one off Brighton on 3 Aug 1872; ³ excludes one at The Crumbles on 7 Sep 1899; ⁴ excludes one at Rye Hbr on 14 May 1950; ⁵ excludes two undated historic records of birds found dead in June; ⁶ at least three July birds.

Arrival and Departure Dates

The tables include information from 1960 with earlier notable records in notes. To make a clear cut-off between arrival and departure dates all January records have been omitted from the table of summer visitors and from the calculation of mean dates and all July dates from the table of winter visitors with the exception of Purple Sandpipers, which regularly return to their winter grounds in July. Any January and July dates for the current year are to be found as footnotes. The large numbers of terns seen at seawatches to which a specific identification could not be ascribed have been included as Common/Arctic Tern. The early dates are most likely to refer to Common Tern and the later ones could be either Common or Arctic.

The ten-year average is included to indicate if the date quoted is unusual and is calculated from the 10 years prior to the current one. The standard deviation gives an indication of the reliability of the average (64% of values fall within one standard deviation). For example, a standard deviation of ± 7 means that 64% of the dates fall within 7 days of that average.

Wealden Heaths Breeding Bird Survey 2021
Summary of counts in West Sussex

	AC	BD	BH	CC	GC	IC	LC	LP	LS	SC	WC	WD
Woodcock	2	4	-	-	-	-	1	1	1	-	6	1
Stock Dove	1	6	1	1	-	4	5	1	4	2	-	6
Turtle Dove	-	-	-	-	-	-	-	-	-	-	-	-
Nightjar	18	6	2	2	-	9	8	2	-	3	10	1
Green Woodpecker	4	2	1	1	-	2	5	1	3	1	1	5
Great Spotted Woodpecker	8	3	-	1	-	5	5	4	3	2	2	3
Hobby	-	-	-	-	-	-	-	-	-	-	-	-
Woodlark	9	8	3	2	2	10	4	2	1	2	2	4
Skylark	-	-	-	-	-	-	-	-	-	-	-	-
Common Whitethroat	2	6	-	3	-	5	2	7	1	2	14	5
Dartford Warbler	8	9	-	6	-	7	5	-	1	1	-	4
Common Redstart	2	5	-	5	-	-	-	-	4	-	-	3
Eurasian Stonechat	14	10	1	3	-	10	4	3	-	1	2	2
Tree Pipit	3	3	-	2	-	5	-	-	4	-	1	3
Meadow Pipit	-	-	-	-	-	-	-	-	-	-	-	-
Linnet	7	7	1	2	-	3	9	6	1	-	14	7
Lesser Redpoll	3	-	-	-	-	-	-	-	1	-	-	-
Common Crossbill	2	8	-	-	-	1	1	1	6	-	-	-
Siskin	6	6	-	-	-	-	1	-	4	-	-	-
Yellowhammer	5	-	1	-	-	5	6	5	-	1	15	-
Reed Bunting	-	-	1	-	-	-	-	2	-	-	-	-

Figures relate to pairs or territories. The small hyphen (-) indicates that no territories were identified.

Key to sites			
AC	Ambersham & Heyshott Commons	LC	Lavington & Duncton Commons
BD	Black Down (Fernhurst)	LP	Lord's Piece (Coates)
BH	Broad Halfpenny (Coates)	LS	Linchmere & Stanley Commons
CC	Chapel Common	SC	Stedham Common
GC	Graffham Common	WC	Woolbeding Common
IC	Iping Common	WD	Weaver's Down (Liss)
The above heathland sites were the only ones surveyed this year			

Finders' Accounts of Notable Species

Sussex's second White-throated Sparrow, 3 February – 18 April 2021

Catherine and Robert Anscombe

In February 2021, the Barcombe Community Wildlife Group (BCWG) decided to survey the distribution of House Sparrows in the parish because numbers seemed to be increasing following a steady decline. Living on the edge of the recreation ground at Barcombe Cross, one of us (Catherine) was counting House Sparrows in the hawthorn hedge outside our kitchen window at 08:40 hr on 3 Feb following stormy overnight conditions when a sparrow with distinctive zebra-like black and white stripes over its head was spotted on the gravel beneath the bird feeders (refreshed for the late January RSPB Garden Birdwatch). It was like nothing seen by us before and could not be found in our bird book (though a Google search suggested it might be a North American species) so a photo was posted on the BCWG Facebook page in the hope of identifying it. One of the members forwarded the photo to the Sussex Birders' Facebook site from where it found its way onto national bird news sites. It was quickly identified as a White-throated Sparrow from North America and only the second for Sussex (the first at Belle Tout Wood from 19 to 30 Oct 1968).

Few in the BCWG were aware of the implications of releasing news about such a photogenic and rare bird as few members had ever experienced a 'twitch'. It soon became obvious that it would be unwise to encourage large numbers of birders to travel across the country during a national pandemic lockdown and to a small village with limited parking. Consequently, with the help of the Sussex Ornithological Society, local and national bird news sites were asked to remove further information. This happened relatively quickly though apparently not without persuasion in some cases.

The sparrow visited our garden frequently on most days from 3 to 27 February. It would fly in relatively low, feeding from the gravel path not from bird feeders, kicking back gravel and leaves, and only perching at a height on top of the *Leylandii* trees to give its very distinctive song which was quite unlike those of local species. It seemed to socialise increasingly with the Dunnocks, often flying into the garden with them. It tolerated Robins and Woodpigeons but chased off House Sparrows. It appeared regardless of the weather circumstances and we took some good video footage of it in the snow on 8 Feb. It appeared less frequently after the 23rd but we started to hear its song in nearby allotments and at the edge of the recreation ground. It made two appearances in our garden on 27 Feb and then we then did not see it until one further brief appearance in our hedge on 7 Apr.

Additional comments from Simon Linington

Although a member of the BCWG and living less than 250m from the Anscombes, on 3 Feb, I hadn't yet joined Facebook and the first I knew about the sparrow was when I got a message later that day from a friend who'd seen postings on social media. Fortunately, the Anscombes kindly then offered me the chance to watch from the edge of their garden and I saw the sparrow well on both 4 and 5 Feb. I then stayed away as I didn't want to add to the low-key twitch that was underway despite lockdown when a small but significant number of birders found an excuse to 'exercise' within the village (some quite genuinely walking in from nearby locations). I started watching the bird again once it had moved from the garden and settled about 100-150m away in an area comprising the main village allotments and scrub known locally as 'Wild About Barcombe' (WAB). The area didn't have the privacy problems of a private garden but the WAB site, although providing wildlife habitat, is used as a children's play area (including by the local school). Between 1 Mar and 18 Apr (when

it left), I saw the sparrow on 20 occasions. Initially, lockdown was still underway and there were also significant potential parking problems, so the news continued to be suppressed which was not a comfortable decision knowing the likely popularity of this photogenic bird. Eventually, the two major bird news websites decided to put the news out again on 8 Apr leading to a significant twitch with several hundred birders arriving from as far away as Anglesey, Runcorn and Nottingham.

During the first part of its stay in the WAB site, the bird was extremely secretive and it rarely sang. It would creep through the tangled undergrowth in a very Dunnock-like fashion, its presence often only given away as it turned leaves or appeared momentarily on a path. It spent some time pecking at moss on fallen branches and when on the ground would almost dive into the leaves to turn them. I also saw it bathing in the small wildlife pond. During this time, I didn't see the bird on every occasion and one local birder took six visits before seeing it. However, towards the end of its stay it became more vocal, sometimes singing very high up, particularly early in the morning. After 8 Apr when birders and photographers started to put seed out, it was seen more regularly though it would disappear occasionally for hours on end. There was a reliable sighting of it during one such absence on 9 Apr, when there was considerable disturbance at the WAB site, about a mile away though eventually it was seen to fly back towards the village. It was also sometimes found near a smaller set of allotments not far from the garden where it was first found. Although there was a large allotment adjacent to the WAB site, I only saw it there on one occasion (7 Apr) and it mainly stayed in the scrub and under-storey of the WAB site akin to the kind of habitat where I've seen them in North America. The bird was not seen or heard after 18 Apr to my knowledge presumably as its migratory instincts kicked in. A very large number of photographs and a few sound recordings were made.

Luckily, the bulk of the twitch occurred during the Easter school holiday. Had it occurred during term time when there is a lot of traffic to the nearby primary school then parking could have become a serious problem. The attitude to the twitch within the village varied considerably with a few locals outwardly expressing their displeasure but by far the majority were welcoming and excited about their village being placed on the ornithological map. The Anscombes were particularly tolerant of birders staring into their hedge during the early days of the bird's visit. Leaving aside a couple of incidents that I know about, those visiting to see or photograph the bird were very respectful of the potential disturbance to village life. In the latter few days of its stay, birders donated several hundred pounds towards improvement of the WAB site.



The socially-distanced 'twitch', WAB site, 17 April (Simon Linington)

To Twitch a Mockingbird!

Christine Lindsay

Whilst eating my breakfast on the morning of Thursday 8 Apr 2021, my attention was drawn to an unusual bird feeding on the fat balls suspended in a feeder from a tree in the communal garden of the block of flats where I live in Pulborough, West Sussex. I grabbed my binoculars and couldn't believe what I was seeing! It was about the size of a blackbird/thrush, had a white front, grey back, longish bill, a long tail and some white wing patches. "What on earth was it?" I pondered. I volunteer at RSPB Pulborough Brooks and having been a birder since 1963, profess to have a pretty good knowledge of British birds but I just knew that this bird wasn't anything like I had seen before in UK. I phoned a neighbour and asked him to come to see it and then grabbed my mobile phone, went into the garden and carefully approached the bird to take its picture. Mercifully, it seemed quite confiding and allowed me to get up reasonably close and I got a good shot of it sitting on a dead twig above the fat balls. I then attached the photo to an e-mail which I sent to some "birding nerds" asking for an ID, please! Doug, my neighbour, duly arrived and we both observed the bird which by now was feeding on the lawn and then flew up to pose nicely on the top of a hedge. After a few more minutes, the bird took off and flew in an easterly direction out of our view.

Shortly after this, my mobile pinged and it was a text message from Liam Curson whom I knew from when he was an intern at RSPB Pulborough Brooks. It read "Bxxxxxy hxxl, Christine – this is a Northern Mockingbird from the USA!" He then went on to say that it is a "first sighting ever for Sussex" and only the 4th time it has been seen in the UK! On my bookshelf is the David Sibley "Field Guide to the Birds of Western America" so I turned to page 351 and yes – there was a picture and description of the bird! Wow! My head was spinning!! What next to do? I phoned Liam and praised his ID skills. He asked permission to contact his friend, Matthew Phelps, who also lives in Pulborough and is a keen birder, to which I agreed. Liam gave me the phone number of Mark Mallalieu, the Sussex County Bird Recorder. I phoned Mark who, although driving his car, answered the phone! I explained that I was reporting a rare bird sighting in Pulborough. He asked for the bird species and when I said that it was a Northern Mockingbird, he replied, "You're joking!" I explained that I wasn't joking and he said that he needed to park up to take in the news! I confirmed that the bird had been positively identified by myself, my neighbour and Liam. Mark told me that a Northern Mockingbird had been recently seen in Exmouth, Devon and that as so many twitchers had arrived to see the bird, the Police had to break up the groups and issue fines for breaking Covid restrictions! He then cautioned that if word got out onto social media of the Pulborough sighting then potentially hundreds of twitchers could turn up to see it or alternatively we could keep the bird sighting secret. He then asked me for directions to the bird so that he could ask a local birder to look for it.

By this time, I was peckish so had a coffee and a biscuit and just needed to sit down to let the potential enormity of the situation sink in. Doug went home and I dashed round to Tesco, bought a "Meal Deal" sandwich, scoffed this down and then went out onto the Brooks to see if I could relocate the bird. Two minutes later, I was there along with about 30 other twitchers, all armed with telescopes, binoculars and cameras, closely observing the Mockingbird happily posing on top of a brush pile, next to the R Arun.

Social media was buzzing overtime and more twitchers were arriving, hurrying down a path, through a kissing gate and rushing across a field to see a "lifer". A group of local children, aged about 8 years and under had gathered to see what was going on and one of them tugged at my arm and asked what we were looking at. I gently guided them over to provide the best view possible and explained the identity of the bird and where it had come from. They were agog! We then chatted as

a group for a good 5 minutes or more and I just hope that those moments of deep conversation will be a pivotal point in sparking enthusiasm for birding as a hobby in their future lives.

I asked some of the adult “twitchers” from where they had travelled and was intrigued to hear such places as Maidstone, Worthing, Brighton, Croydon and Basingstoke. Several of them represented national birding web sites and were busy taking photos and uploading them onto their platforms so there was a great buzz all round. One of the guys mentioned that he had been in Devon only two days previously and had photographed the bird there and by comparing plumage details with the bird in front of us, it was almost certainly the same bird - thus concluding that the Mockingbird had flown from Devon to West Sussex within in a 24 – 36 hour time frame but not having been observed en-route. Altogether I would say that within a few hours, approximately 100 or so twitchers witnessed this beautiful bird which happily posed and was the real star of the show.

Later in the afternoon, the bird flew from its favoured brush pile by the river into some bushes in a local garden belonging to Matthew Phelps who by chance was celebrating his birthday! He later told me that the sighting of a Northern Mockingbird in his own garden on his birthday was “the best thing ever!” I feel sure that many other twitchers who were lucky enough to have seen this beautiful bird can resonate with that too.

The moral of all of this – just keep a look out for what is feeding on your fat balls!

Editor's note: Tier 4 COVID-19 restrictions were in place at the time and the SOS had a message on its website asking birdwatchers to follow government guidance.



Northern Mockingbird, Pulborough, 8 April (Brian Cox)

Long-toed Stint, Weir Wood Reservoir, 15 to 21 September 2011: the first for Sussex

Peter Johnson recalls the initial discovery:

It seems like a lifetime ago now but I do remember the afternoon of 15 Sep I was standing with David Williams looking at the long-distance waders out on the water's edge as the "tide" had gone out to nearly the old road (where the Nature Reserve boundary across the water is). We'd spotted a few waders further in and I believe there were Snipe and Dunlin out there as well as probably Common Sandpipers and Lapwing. There was one wader which kept going down the gullies in between the Tern rafts and we spent ages watching and looking in books trying to decide what it was. We'd agreed it was probably a stint but realistically it was too far for us to confidently identify, and impossible to identify as something neither of us had seen before! However, we put the news out as a stint and hoped that more experience birders would come down and help. The bird was later reported as a probable Temminck's Stint.

Jacob Everitt takes up the story:

I decided to go and have a look at the Temminck's Stint which had been found that day. When I arrived, I found the bird fairly easily though it was a long way off and 'scope was essential. My views were of a bird with a pale supercilium, seemingly pale chin and breast band but I was conscious this was at distance. It also seemed to be quite well marked/patterned on the mantle but again was this an artefact of distance?

When I got home, I googled as many pictures of Temminck's Stint as I could and could not find anything like what I thought I had seen so alarm bells began to ring. In fact, the nearest thing to me looked like Least Sandpiper but having never seen one I wasn't prepared to call something as significant as that with the views I had got. Later the identification as a Temminck's Stint seemed to firm up and so being fairly new to the Sussex scene I let it go.

It wasn't until mid-afternoon on the 20 Sep when I received a phone call from Lee Evans saying he wasn't happy with it being a Temminck's and he was sure it was a Long-toed Stint. So after work I met Ian Barnard, Paul Marten and Lee and we all agreed it was feeding with a very strange gait somewhat similar to Wilson's Phalarope. Again, the supercilium, white chin and breast band were all in evidence. Light was quickly failing, but Lee commented "All of the time I was worried about the length of the tibia (noticeably long) and its habit of strangely lifting its head and peering around (giving a long-necked appearance). I was also worried about the lack of primary projection, as well as the apparent dark underwing in flight. I also heard it call at one stage as it flushed - a trilling call not that dissimilar to a Pectoral Sandpiper. There was a chance that it was a Long-toed Stint" (from Lee Evans' account on the SOS website). The following morning further photographic and video evidence was gathered and "the presence of pale greyish-green legs long in the tibia, dark lores, fine breast-side streaking and an isolated cheek/ear covert spot confirmed my suspicions that it was a LONG-TOED STINT after all" (Lee Evans' account).

I believe about 100 people saw the bird on 21 Sep. Unfortunately, it departed overnight on the 21st and there was no sign of it on the 22nd.

Editor's note: the record was originally considered not proven by BBRC, but was eventually accepted in 2022 after reconsideration of all the evidence. Long-toed Stint breeds in subarctic to temperate bogs in Siberia east to the Pacific Ocean and winters from south-east China and the Philippines to eastern India and south through Indonesia to Sulawesi.

The Sussex Ringing Report 2021

Val Bentley

The second year of COVID-19 restrictions meant that apart from at private sites or in gardens, there was little ringing possible until the start of May. Until the end of March people were expected to “stay at home”, then to “stay local” with limits to the numbers who could gather together, even outside. The activity of ringing often involves sharing of equipment and handling ring strings even if individual pliers, scales and rulers are used. The vaccination programme started at the very end of 2020, being rolled out to the most vulnerable groups first; some ringers would have had to wait for several months for theirs and to feel confident to join others at ringing sites.

In addition, flooding from the end of 2020 continued to affect low lying sites such as Charleston Reedbed (Cuckmere Ringing Group). There was a mini “Beast from the East” in February, and cool north-easterlies during most of March, though with a very warm spell at the end. April was then colder than usual with arctic wind flow predominating, and low rainfall. May was very unsettled with some heavy rainfall, which would have unfortunately coincided with many migrants’ first nesting attempts. From the second half of June into July another spell of unsettled and wet weather arrived before a brief period of very warm temperatures then a return to wind and rain in early August. September was generally fine, but south-westerlies dominated in October with rain moving through. November was drier and milder than normal, while December alternated between very chilly and wet and windy conditions.

Data collected from nest recorders and ringers operating Constant Effort Sites (CES) in Britain & Ireland are the basis for the BTO Preliminary Report on the 2021 Breeding Season. This indicates that many migrants returned in good numbers throughout the UK, but productivity was considerably lower for all breeding migrants (Table 2). For resident species adult abundance was similar to or lower than the five-year mean. Productivity was lower for all these species bar Greenfinch (Table 3). Most ringers were able to put in as much effort as in previous years during migration time, but encountered fewer birds. For example, at Cissbury from May to 26 Sep 2020, 20 ringing sessions were conducted, resulting in 1243 captures at an average of 71 birds per visit, while in the equivalent time period in 2021 there were 14 sessions producing 647 captures, and an average of only 40 birds per visit. In summary “2021 proved to be a disastrous breeding season, with 18 of the 24 species recorded through CES (Constant Effort Site) ringing displaying significant declines in productivity compared to the five-year mean”. Ref: <https://www.bto.org/our-science/projects/bird-ringing-scheme/ringing-surveys/constant-effort-sites/ces-results>

The final total of birds ringed in East and West Sussex was 30,334, 8094 fewer than in 2020, of which Rye Bay Ringing Group contributed 12,420 a decrease of over 5000 from the previous year, and at most other sites numbers were also lower, despite the fact that by migration time COVID-19 restrictions had been relaxed and most ringers were able to operate as normal. The number of birds ringed in Britain and Ireland in 2021 was 900,131, 30,000 fewer than in 2020 and well down on just over one million the previous year.

Five ringing groups operate in Sussex: Rye Bay Ringing Group (RBRG) at Pett Level, Beachy Head Ringing Station (BHRS), Cuckmere Ringing Group (CuRG), a team at Ladywell (Lancing College), and Steyning Ringing Group (SRG) at both Steyning and Cissbury. There are also many other sites throughout the county, where individual ringers operate. The Sussex Barn Owl Study Group (SBOSG) continues to install and monitor nest boxes for the species, and rings nestlings, some adults and other species which sometimes use the boxes. A project to colour-ring terns and gulls at Pagham Hbr, started in 2019, recommenced and has already generated some interesting information.

Most ringers kindly provide further information, which gives a more detailed picture of ringing activity in the county.

The primary source of the following table is the BTO Online Ringing Report which is available at <http://www.bto.org/volunteer-surveys/ringing/publications/online-ringing-reports>. Totals may be subject to adjustment if data is received after the initial publication.

Species	2017	2018	2019	2020	2021	Species	2017	2018	2019	2020	2021
Mute Swan	7	12	2	2	1	Wood Warbler	1	3	0	0	1
Common Shelduck	16	25	6	0	0	Willow Warbler	2479	1544	1584	1874	1320
Mallard	99	70	15	7	14	Chiffchaff	5774	2941	3091	3854	3356
Eurasian Teal	6	5	2	0	0	Sedge Warbler	3909	2935	1720	2869	2885
Tufted Duck	18	41	0	0	0	Reed Warbler	4049	2928	2749	3090	2849
Common Swift	0	0	2	4	4	Marsh Warbler	0	1	0	0	1
Common Cuckoo	1	4	0	1	0	Grasshopper Warbler	573	545	363	606	359
Stock Dove	49	51	41	19	46	Blackcap	8099	6109	9448	7122	5563
Woodpigeon	30	24	29	46	56	Garden Warbler	478	389	441	352	358
Collared Dove	5	13	12	25	15	Lesser Whitethroat	140	175	248	256	200
Water Rail	17	13	3	8	5	Com. Whitethroat	1055	764	1399	962	1067
Moorhen	20	14	4	14	7	Firecrest	100	47	67	67	22
Coot	10	17	2	0	3	Goldcrest	1331	591	631	479	130
Lapwing	4	52	47	0	58	Wren	441	436	442	422	372
Ringed Plover	0	1	0	0	1	Nuthatch	46	57	59	51	36
Woodcock	0	1	1	2	1	Treecreeper	64	27	62	45	30
Common Snipe	1	3	4	3	8	Common Starling	64	80	161	254	263
Black-headed Gull	14	80	19	0	80	Blackbird	519	544	539	361	545
Mediterranean Gull	0	1	7	0	22	Fieldfare	13	9	12	3	5
Herring Gull	4	2	3	3	8	Redwing	204	200	159	80	231
Sandwich Tern	1	3	53	0	58	Song Thrush	263	266	241	199	213
Little Tern	6	5	22	0	37	Mistle Thrush	2	0	1	1	7
Common Tern	14	7	10	5	8	Spotted Flycatcher	11	6	13	15	19
White Stork	0	0	0	4	14	Robin	659	633	815	718	748
Honey-Buzzard	6	4	5	5	4	Com. Nightingale	17	21	23	41	34
Sparrowhawk	16	17	11	28	21	Pied Flycatcher	0	5	1	3	3
Common Buzzard	2	7	5	1	6	Black Redstart	0	0	0	0	2
Barn Owl	272	312	259	201	213	Common Redstart	17	5	9	16	14
Tawny Owl	5	5	6	3	8	Whinchat	3	5	2	5	4
Kingfisher	36	34	17	20	14	Eurasian Stonechat	19	9	3	48	22
G S Woodpecker	87	78	75	70	87	House Sparrow	203	157	248	322	416
Green Woodpecker	8	6	12	7	8	Dunnock	434	429	512	458	433
Kestrel	39	33	29	18	36	Yellow Wagtail	1	0	0	0	14
Hobby	0	1	0	0	1	Grey Wagtail	16	25	24	17	16
Peregrine	17	14	5	0	3	Pied/White Wagtail	6	15	2	41	55
Jay	9	5	13	6	12	Meadow Pipit	60	29	17	41	110
Magpie	4	15	10	24	20	Tree Pipit	33	42	18	27	35
Jackdaw	76	117	234	123	236	Chaffinch	244	377	273	205	174
Rook	31	37	33	66	71	Brambling	3	1	6	1	3

Coal Tit	215	109	141	82	35	Bullfinch	141	96	93	109	85
Marsh Tit	72	64	102	37	50	Greenfinch	396	684	367	572	269
Blue Tit	3135	3099	3893	2553	2873	Linnet	75	83	118	108	271
Great Tit	1187	1437	1474	1026	934	Lesser Redpoll	821	176	28	3354	279
Bearded Tit	19	17	8	22	12	Goldfinch	2007	2407	2328	2736	1429
Skylark	0	2	2	4	1	Siskin	3	37	5	31	20
Sand Martin	25	121	219	58	2	Yellowhammer	7	11	15	40	61
Barn Swallow	261	822	226	1022	52	Rustic Bunting	0	0	0	0	1
House Martin	2	29	162	274	85	Reed Bunting	345	300	318	358	463
Cetti's Warbler	116	108	125	170	98	Total*	41600	33436	36378	38428	30334
Long-tailed Tit	431	322	364	228	213	Number of Species*	108	108	95	91	94

Table 1. Species ringed in Sussex 2017-2021*.

*For 2017-2020 the total and number of species include the following other species ringed in small numbers or in only one year (year/s, number ringed):

Canada Goose (2019, 1) Greylag Goose (2020, 1) Mandarin Duck (2017, 4; 2018, 2; 2019, 1) Gadwall (2017, 7) Eurasian Wigeon (2017, 1) Pintail (2018, 3) Common Pochard (2017, 1; 2018, 2) Nightjar (2017, 1; 2018, 1) Turtle Dove (2017, 1; 2018, 2) Little Grebe (2017, 1) Stone Curlew (2018, 1; 2019, 3) Dunlin (2017, 5) Common Sandpiper (2018, 5; 2019, 1) Common Redshank (2017, 34) Greenshank (2017, 11) Great Black-backed Gull (2017, 2) Lesser Black-backed Gull (2019, 1) Cormorant (2017, 1; 2018, 2) Little Owl (2017, 3; 2018, 7) Long-eared Owl (2020, 1) Wryneck (2017, 1; 2019, 1) Carrion Crow (2017, 2; 2018, 1; 2020, 4) Hume's Warbler (2020, 1) Yellow-browed Warbler (2017, 2; 2019, 1; 2020, 5) Dusky Warbler (2020, 1) Aquatic Warbler (2017, 1) Barred Warbler (2018, 1) Dartford Warbler (2018, 1; 2020, 1) Ring Ouzel (2017, 1) Northern Wheatear (2017, 1) Tree Sparrow (2018, 1) Water Pipit (2017, 1) Hawfinch (2018, 2) Common Rosefinch (2018, 1) Common Redpoll (2020, 1) Redpoll sp (2017, 1; 2020, 5) Corn Bunting (2020, 4) Ortolan Bunting (2018, 1).

As a percentage of the Britain & Ireland total of 900,131, the contribution from Sussex was slightly lower this year at 3.4%.

For some of the less frequently ringed species captured in 2021, the following further information has been provided by the ringers. The Mute Swan, the four Swift nestlings and two adult Buzzards were ringed in the Horsham area, the remaining four Buzzards were nestlings at Wakehurst. The Ringed Plover chick was at Pagham Hbr, the Woodcock at Charleston Reedbed and both the Wood Warbler and Marsh Warbler were ringed by RBRG. One of the Black Redstarts was ringed at Gatwick Airport and the other at Rustington, the first time since 2016 that the species has appeared in the county totals; considering that only 61 have been ringed in the county to date, it is surprising that one trapped at Beachy Head in April 1974 was found in Switzerland on 13 Jun that year (Thomas 2014). The Rustic Bunting, one of only three ringed in Britain & Ireland this year, was a first year bird trapped by CuRG on 13 Oct. The only previous capture of the species in Sussex was by RBRG on 12 Nov 2008 (Thomas 2014).

Summer Migrants

As in previous years, Blackcap is the most ringed species in Sussex, with over 90% being birds hatched during the year. However, the total of captures in 2021 was 22% lower than in 2020 and just over 40% down on an exceptional year in 2019; this is still 10% of the UK & Ireland total (11% in 2020). For other migrant warbler species, the Sussex totals compared with those nationally were 12% for Reed and Sedge Warbler (both 14% in 2020), the predominant contribution being from RBRG, 7.5% for Common Whitethroat (7% in 2020), 9% for Lesser Whitethroat (11% in 2020), 8% for Chiffchaff (8% in 2020) and 5% for Willow Warbler (7.5% in 2020). The 359 Grasshopper

Warblers ringed, 315 of which were by RBRG, represented 21% of the total of 1717 for the whole of Britain & Ireland (36% in 2020). Among the 2885 Sedge Warblers trapped by RBRG, one melanistic individual was the darkest seen at the site, and a Chiffchaff at BHRS was of the *tristis* race.



Sedge Warbler (melanistic), Pett Level, 12 August (John Willsher)

Preliminary results from the BTO's CES ringing scheme indicate that adult abundance for five migrant species appeared to have been reasonable, and increases were noted for Common Whitethroat, Sedge Warbler and Chiffchaff. However, breeding success (productivity) decreased for all. Results from ringing in Sussex for these species show Reed Warbler, Sedge Warbler, Garden Warbler and Chiffchaff numbers broadly similar to 2020, a 10% increase for Common Whitethroat, but 22% fewer Blackcaps and Lesser Whitethroats and 30% fewer Willow Warblers.

Species	Adult Abundance Change	Productivity Change
Willow Warbler	-10%	-24%
Chiffchaff	14%	-22%
Sedge Warbler	24%	-34%
Reed Warbler	7%	-21%
Blackcap	-5%	-44%
Garden Warbler	-2%	-35%
Lesser Whitethroat	-2%	-23%
Common Whitethroat	35%	-42%

Table 2. Adult Abundance and Breeding Success of Migrant Warblers in Britain & Ireland in 2021 compared with the five-year average, (Extract from BTO CES preliminary report).

Resident Species

CES adult abundance change as a percentage compared to the five-year average (2016-20) showed stability for both Blue and Great Tits compared with significant increases in 2020. However, productivity was again reduced, though by a smaller margin than the previous year. The proportion of first year birds to adults ringed in Sussex for both species in 2021 indicates something of a recovery in the county, with 72% of Blue Tits ringed being nestlings or juvenile birds, while for Great Tits the proportion was 68%. The actual percentages of young birds to adults captured will be a little lower than given above, as some of the adult birds will be retraps from previous years and therefore not included in the total ringed.

Though CES results nationally showed reduced productivity for other resident species, in respect to Sussex ringing totals, Blackbird, Song Thrush and Robin numbers bounced back slightly from the 2020 level, but there were fewer Wrens and Dunnocks. However, the totals of Chaffinch, Bullfinch, Greenfinch and Goldfinch ringed were the lowest for the past five years, and, with the exception of Goldfinch, also the lowest in the past decade.

Species	Adult Abundance Change	Productivity Change
Blue Tit	7%	-23%
Great Tit	4%	-40%
Wren	17%	-32%
Blackbird	-8%	-36%
Song Thrush	-21%	-24%
Robin	4%	-16%
Dunnock	10%	-35%
Chaffinch	-39%	-14%
Greenfinch	-35%	1%
Goldfinch	-1%	-53%
Bullfinch	-11%	-18%

Table 3. Adult Abundance and Breeding Success of Some Resident Species in Britain & Ireland in 2021 compared with the five-year average. (Extract from BTO CES preliminary report).

Colour-ringing and Other Projects

Gulls and Terns at Pagham

In 2017 PM Potts of Farlington Ringing Group (FRG) was asked to assist with the RSPB Little Tern EU Life Project at Pagham Hbr with monitoring, colour-ringing and measuring chicks. The RSPB warden encouraged FRG to metal ring other seabird species, but a more organised, targeted approach involving colour-ringing was proposed and agreed by the RSPB in the hope to gain more resighting data. The colour-ringing of all seabird chicks (not just the initial Little Terns) is now included in the reserve management plan for Pagham and Langstone Harbours.

Mediterranean Gulls were colour-ringed at Pagham in 2019 and 2021. No ringing was carried out in 2020 due to COVID-19 restrictions. Additionally, Black-headed Gull, Common and Sandwich Tern chicks were colour-ringed there in 2021. These species had previously been metal-ringed only in 2019. One of the Mediterranean Gull cohort from 2019 was 384 km away in Morbihan (France) on 29 Apr this year then subsequently flew back to Sussex and was at Yapton on 20 Aug.

In 2019 53 Sandwich Terns were metal-ringed at Pagham, of which only three have been resighted, all at Dawlish Warren (Devon) the same autumn. In comparison, of the 57 colour-ringed in July 2021, 21 of them were seen during the autumn. Seven birds were seen at more than one location.

Two birds headed west, one was noted in Devon, then Cornwall, while another was seen at two different locations in south-east Ireland. What was perhaps surprising was the dispersal east and up the North Sea as well as to the west and south, with one bird being seen as far north as Teeside, two seen in France and six on the Dutch coast, including one photographed in Zuid-Holland on 14 Aug. This particular individual was also photographed from a boat off Cadiz (SW Spain) on 25 Sep.

The single Common Tern ringed at Pagham Hbr was at Hill Head, Fareham (Hants) on 10 Aug.

[Abridged from a Project Report to RSPB kindly provided by PM Potts].



Sandwich Tern, Maasvlakte, Netherlands, 14 August (Monika Ballmann)

Lapwing

A colour-ringing and tagging project on the Norfolk Estate commenced in 2019. In 2021 58 different individuals were ringed, of which seven were adults and 51 pulli. In addition 18 of the chicks were fitted with radio tags to monitor survival as part of a PhD study. Seven adults were fitted with colour rings and six of these also with GPS tags. Due to the species' light weight, these are remote download tags, so the data has to be downloaded upon the bird's return to the estate the following year.

There was only one sighting away from the estate in 2021, when a bird was photographed on the R Adur at Shoreham-by-Sea on 25 Jun. Data has been downloaded for one of three Lapwings tagged in 2019 and for two further birds tagged in 2021. The 2019 bird wintered on the Marlborough Downs (Wiltshire), and the 2021 birds wintered in the Solent, Pagham Hbr and near Arundel.

[Thanks to Ryan Burrell of Bournemouth University and the Game & Wildlife Conservation Trust (GWCT) for providing the above information].

Greenshank and Redshank

There were no captures of these species in Sussex in 2021. However, there were several reports of Redshanks colour-ringed in previous years at Thorney Island. A "leg only" of a bird ringed as an adult in September 2014 was found at North Uist (Western Isles) on 3 Sep, another 2014 adult was seen at RSPB Titchwell Marsh (Norfolk) twice in March, and one from 2015 has been seen at Marsh Lane Nature Reserve (West Midlands) in each subsequent year, including in March and June 2021. These birds have all survived longer than the species' average lifespan of four years

(BTO BirdFacts). Reports from abroad were of the first year bird ringed on 3 Sep 2016, seen near Reykjavik (Iceland) on 31 May 2019 and 9 Jun 2021, at the same site again on 27 May, and another ringed on 27 Oct 2015, reported in Germany in 2016 and The Netherlands in 2019 which was in a similar location in The Netherlands on two occasions in April.

White Stork

Details of the introduction and colour-ringing project at the Knepp Estate can be found at <https://www.whitestorkproject.org/news>.

Honey-buzzard

Four Honey-buzzard chicks were colour-ringed, two each from two broods, making a total of 134 birds ringed in Sussex since the project started in 1997. Ten were ringed in Britain and Ireland in 2021. One ringed in the nest on 3 Aug 2013 was seen on 12 Jun this year in The Netherlands.

Barn Owl

There were 213 Barn Owls ringed in 2021, a slight increase over 2020. The total comprised 203 nestlings or first year birds, with the remaining ten being adults.

SBOSG volunteers ringed 180 Barn Owls in boxes, 170 chicks plus ten adults including one in its fourth calendar year. They found a brood size average of 3.2 and that chicks ringed were mostly of higher weights than the previous year, indicating good prey availability. However, a high number of boxes, historically occupied, housed none, or just single adults. Visits to over 200 boxes were made; 58 were occupied by Barn Owls, other species found included Jackdaw in 11 boxes, Stock Dove in 14, Tawny Owl in one and Mandarin Duck in two. They also ringed five Tawny Owl and 15 Kestrel chicks.

The SBOSG found five site-faithful adult retrap Barn Owls, and the only recovery of note was of a bird ringed as a nestling at Sullington in 2014, killed by a car 6 km away at Amberley on 21 Mar.

Peregrine

Two males and one female, from a single brood at Chichester Cathedral, were ringed in 2021. A female ringed in a brood there in 2009, which was seen from 2013-2016 near Guildford, was in a nearby location on 13 Jun this year. A male from a 2011 brood at Sussex Heights (Brighton), seen at Charing Cross Hospital (Greater London) in 2016, was found with an injury at Watford (Hertfordshire) on 13 Aug.

All sightings of colour-ringed Peregrines are greatly appreciated. Please send to: Graham.C.M.Roberts@btinternet.com

Recoveries & Controls

Note: the order of species follows that in the BTO Online Ringing Report.

In this section, where no year is stated, the record relates to 2021, and covers species not mentioned in the Projects section. The following is a selection from the BTO Online Ringing Report of birds which have been seen, trapped by ringers, or found dead away from the site where they were ringed. Some records have come either directly from ringers, from observers who have kindly provided information obtained personally from other ringing schemes, usually those involving colour rings, or from postings on the SOS website which contained comprehensive details. A control is a ringed bird captured and released at another ringing site, or where a colour ring has been read in the field and reported; a recovery is a bird found, usually dead, by a member of the public. Recoveries and controls provide information on the age of the bird involved and included below are details of individuals which have survived longer than the species' typical life span, some of which were retrapped at the site where they were first encountered. Typical life spans and longevity records

referred to are as shown on BTO BirdFacts. The latter refers to the time elapsed between ringing and recovery or control and is thus only an accurate reflection of the age of the individual if it was ringed as a nestling (or pullus).

There were few records of Sussex-ringed wildfowl in 2021, though two from Pett Level were noted elsewhere. An adult female **Common Shelduck** ringed in January 2017 was at Beddington Sewage Works (Greater London) on 21 May, while a **Tufted Duck** ringed in its first year on 29 Aug 2008 survived for over 13 years but was found dead at Brandesburton (Yorkshire) on 21 Dec, still well short of the longevity record of 24 years.

There were several seabirds recovered in Sussex during 2021. Two **Cormorants** ringed as nestlings at a site in The Netherlands in July were discovered dead on the coast, one at Shoreham Hbr on 27 Sep and a second at Southwick on 27 Oct. In East Sussex a **Gannet** found dead at Pett Level on 26 Feb and another found sick at Fairlight on 27 May had both been ringed as nestlings on Ortac, a rocky islet off Alderney (Channel Islands), the first bird in 2017 and the second in 2006.

A **Common Buzzard** ringed as a nestling at Pett Level on 28 Jun 2011 was over ten years old when found dead in the same area on 25 Nov, still short of the typical lifespan of 12 years. Two **Red Kites** from out of the county were noted, both ringed in 2020; one wing-tagged as a second year bird in Dorset was seen in Angmering on 3 Jan, then subsequently at Dungeness (Kent) in March, the second colour-ringed as a nestling in Hertfordshire was at Highbrook, near Ardingly, on 4 Apr.

A **Water Rail** retrapped by CuRG on 11 Dec had been ringed at the site as an adult female on 30 Jan 2018. A **Moorhen** at Pett Level had survived a little longer, from its ringing date of 20 Dec 2014 to 23 Feb, when it was trapped for the third time.

Colour-ringing has considerably increased knowledge of movements of waders. As well as the Redshanks referred to earlier, an **Oystercatcher** ringed near Southampton (Hampshire) in January 2020 was at Pagham Hbr on 16 Aug. Eleven years since it was first seen at Pett Level in 2010, the **Avocet** ringed in its nest in Loire-Atlantique (France) on 20 Jun 2007 was reported at Pett again on 19 Mar and 20 May, now nearly 14 years old and well past the typical six year lifespan. Another seen at Pagham Hbr on 30 Aug and 2 Sep had been ringed as a nestling in June at Farlington Marshes (Hampshire). Also returning to Pett Level for a second consecutive year on 11 Feb was a **Curlew** ringed as an adult male at Shellness (Kent) on 12 Aug 2007; this bird was also trapped at Münster (Germany) in 2011.

There was an exchange of **Black-headed Gulls** between Sussex and a site in Berkshire. A 2014 nestling from Hosehill Lake LNR (Berkshire) was at Pett Level in both March and April, while another, ringed at Chichester GP in 2007 was at Hosehill on 4 Apr, its first resighting. Three 2016-ringed individuals from across the Channel were reported during 2021; one from Croatia had visited Littlehampton in 2018, 2019 and was there again on 10 Nov, another from Belgium was seen at Pett Level on 17 May, and the third, at Pagham Hbr on 13 Jul, was from the Czech Republic.

Only a selection is shown on the BTO Online Ringing Report, but at Pett Level 126 different colour-ringed **Mediterranean Gulls** were recorded (PE Jones). The breakdown of countries of origin was Belgium 60, France 4, Netherlands 17, Germany 24, Hungary 3, Poland 3, Slovenia 1 and the UK 14. The four oldest individuals were ringed as pulli in May 2002 at Zandvlietsluis, Antwerp (Belgium), and for two of these it was the first sighting here. In West Sussex one observer noted 14 different birds at Climping and Bilsham in August. Six of these were from Holland, three from Germany, two apiece from Belgium and Poland, and one from Hungary. The oldest Mediterranean Gull seen in Sussex this year, ringed as an adult female in Poland in May 2001, was at Hayling Island in 2015 and at Bosham on 12 Sep; at 20 years 3 months, this exceeds the current longevity record shown, as is also the case with four of the Belgian-ringed birds seen at Pett Level.

There were far fewer reports with respect to other gulls. Two **Common Gulls** seen at Shoreham-by-Sea in late winter were from Germany, the older of the two ringed as an adult in 2013, while a Belgian-ringed bird was seen at Pett Level on 4 Apr. A **Great Black-backed Gull** ringed in Northern France in June 2007 has been seen on the Sussex coast for several years, ranging from Shoreham-by-Sea to Newhaven where it was seen on 3 Sep. Two birds ringed as nestlings in southern Norway in 2020 had different fortunes. One was seen at Pett Level on 15 Jan while a second was found dead at Pevensey Bay on 26 Jun. Two **Lesser Black-backed Gulls** ringed in 2012 and 2014 in the Channel Islands were reported by the R Adur (Shoreham-by-Sea) in March. The finder was unsure of the identification, still not determined, of another colour-ringed gull by the R Adur in December, but later learned that it came from a Czech colony of Caspian and Yellow-legged Gulls.

In addition to the sightings of terns ringed as part of the project at Pagham Hbr, two **Little Terns** at Selsey on 18 Aug had different origins, one from a 2016 nest at Chesil Beach (Dorset) and the second from a 2019 nest in Co Wicklow (Ireland).

CuRG ringed a **Cuckoo** on 23 Aug 2014; it was retrapped on 7 Jun at Isle of Grain (Medway). The distance between the two sites is just 82 km, but this bird has undertaken seven return journeys to the Central African rainforest during its lifetime, in excess of 56,000 miles. A sad fate ensued for a first year male **Kingfisher** ringed near Weir Wood Res on 12 Aug. It was killed by a cat on 27 Nov, not in the UK but in Co Wexford (Ireland). While Kingfishers from mainland Britain have been found to cross The Channel, The Migration Atlas (2002) does not show any movements to or from Ireland to mainland Britain at the time of publication, and there does not appear to be a record of such a movement in the intervening years.

A very unusual find was a ring found at Rodmell in February which had been applied to a nestling **Magpie** at Northease back in 1939; was it found by a metal detectorist? The oldest **Jackdaws** retrapped at Pett Level included two ringed in 2010 and two from 2011, while two retrapped **Rooks** were ringed as adults there on 12 Mar 2004. The longevity records for these latter two species are 18 and 22 years, but their typical life spans are only five and six years respectively.

Tit species typically stay local, and are often retrapped at the same site several years later. A **Coal Tit** at Warnham LNR on 20 Mar was ringed there in November 2014, and an even older **Blue Tit** at Charleston Reedbed on 18 Apr was first captured in July 2013. Both were ringed in the year in which they hatched. A more adventurous individual, ringed in Oxfordshire in February 2019 turned up in a net in Burgess Hill on 17 Jun. A **Long-tailed Tit** retrapped at Ladywell on 26 Sep was ringed there as an adult in May 2016, hence into its seventh calendar year well past the species typical life span of just two years. A group of five with sequential ring numbers captured at Steyning on 6 Nov had been ringed only the previous morning 17 km away at Hardham.

Two **Willow Warblers** ringed in Scotland in 2020 were trapped in Sussex, one by RBRG and the other by CuRG, while an adult bird ringed by CuRG in 2018 was possibly breeding in Cumbria where it was captured in both May and July. Two birds, ringed at Pett Level and Ladywell in 2020, were controlled in Charente-Maritime (France) in early autumn 2021. A **Chiffchaff**, ringed on 26 Sep 2018 at Willingdon (Eastbourne), was captured in Dumfries & Galloway on 22 May. There were several recorded southerly movements of birds on autumn migration, including first year birds ringed in September at Warnham LNR and the Knepp Estate which were controlled in France and Portugal in October and November respectively.

With so many **Sedge Warblers** ringed by RBRG it is not surprising that they had a total of 32 controls or recoveries. Ten of their birds were found in France, and two in Belgium. Tour aux Moutons, in Southern Brittany, seems a favourite staging post with five controlled there. Two French-ringed birds were trapped at Pett Level, one of which was ringed in 2017. A bird ringed near

Falkirk (Scotland), on 12 Sep took just nine days to fly the 636 km south to Pett Level. One of the CuRG individuals from 2020 was unfortunately predated on its breeding site at Skokholm (Wales) on 26 May. There were slightly fewer controls/recoveries from RBRG of **Reed Warblers**, but still a total of 25, mostly within the UK, but four were controlled in France and two French-ringed birds were at Pett Level. Controls at CuRG were one ringed in Faro (Portugal) on 26 Aug 2018 trapped on 11 May and rather surprisingly a first year bird ringed in The Netherlands on 3 Aug which had moved west to the Cuckmere 18 days later. The oldest known returning individual to be trapped this year, again at Pett Level, was ringed as a juvenile on 26 Jul 2013. Two **Grasshopper Warblers** ringed on migration at Pett Level in 2020 appeared elsewhere, one in Tyne & Wear in May and the second near Tring (Hertfordshire) in July.

Most of our breeding **Blackcaps** are known to migrate south into Europe for the winter with the main passage in September, returning from April (Wernham *et al.* 2002), so the dates for the movement of a female from Yorkshire on 18 Mar to Pett Level on 18 Nov are quite unusual. More orthodox were movements of a juvenile from Pett Level in June 2020 to Alderney in April, and from Pett Level on 26 Sep to The Netherlands on 2 Oct. Controls of other *Sylvia* and of *Curruca* species were all within Great Britain and followed expected patterns.

A single **Firecrest** movement was reported, of a first year female which took only three days to move 64 km from Sandwich Bay to Pett Level in mid-October. Exchanges of **Goldcrests** across The Channel were of two birds ringed on 18 Oct 2020, one at Beachy Head and one in The Netherlands. The first was controlled in The Netherlands on 2 Apr, and the second was hit by a car in Bognor Regis on 26 Mar. Further evidence of travel across the North Sea was supported by one killed by a cat in East Grinstead on 1 Feb which was ringed in south-east Norway on 18 Oct 2020.

Wintering **Starlings** in the county are known to come from Germany, Poland, western Russia and the southern Baltic countries (Thomas 2014). On 2 Dec one trapped at Hardham had been ringed as a first year bird in July at Ventes Ragas Ornithological Station in Lithuania. The subsequent recovery on 25 May in Sweden of a **Blackbird** ringed by RBRG on 28 Oct 21 is further evidence that our resident population is augmented in autumn by an influx from Sweden, Germany, Denmark and the Low Countries (Thomas 2014). The oldest individual found was more site-faithful, retrapped at Steyning on 20 Aug, just three days short of eight years from its ringing date. **Redwings** are known to spend winters in different locations; one safely survived the 2019/20 winter at Knepp, but was not so lucky in 2020/21 as it was shot in Gironde (France) on 17 Jan. Two **Robins** ringed on the continent were found in Sussex, the first ringed 922 km away in Denmark on 7 Oct was a window casualty at Thakeham 22 days later, and another ringed near Marck on the north coast of France in September 2019 was captured at Cissbury on 22 Sep. Returning **Nightingales** found at other sites were two from Knepp, ringed in 2020, one trapped at Capel (Surrey) on 1 May and the second at Gatwick Airport on 9 Jun, and a 2019-ringed bird from Pett Level trapped at Lodge Hill (Kent) on 15 Jun. On 27 Apr a bird retrapped at Knepp had been ringed there on 3 Jun 2016 as an adult, thus into its seventh calendar year.

The **Rock Pipit** colour-ringed at Giske Ornithological Station (Norway) on 31 Aug 2018, seen in Chichester Hbr in the winters of 2019/20 and 2020/1 returned for a third winter and was reported on 17 Dec. Two more were in East Sussex, both from a similar area in Norway and both reported on 9 Mar; the older of the two, ringed on 6 Oct 2017 was seen at Arlington Res and the second, ringed on 2 Apr 2019 was at Eastbourne.

While many **Greenfinches** are relatively sedentary, just moving to exploit local food sources (Thomas 2014), a few do move some distance, including one trapped at Sedlescombe on 22 Apr, ringed in Oxfordshire in December 2019, and a second bird found dead at Petworth on 14 Mar, ringed near Boulogne (France) on 3 Nov 2018. Examples of movements of **Lesser Redpoll** between

Sussex and Scotland continued. Four from Sussex were controlled in Scotland, and two from Scotland controlled here; 872 km was the furthest distance travelled, by one ringed in the Western Isles on 23 May and trapped by RBRG on 23 Oct. There was also an adult male ringed at Hardham on 17 Oct 2020, which was controlled at Liège (Belgium) on 19 Mar. **Goldfinch** movements reported also followed expected patterns. Sussex-ringed birds were found in Suffolk, North Devon and Powys, two crossed the Irish Sea to Co Antrim and Tipperary, while one ringed at Hardham on 8 Nov 2020 was controlled in Indre-et-Loire (France) on 14 Feb. Two ringed in France earlier in 2021 were found in Sussex, one by CuRG on 18 Apr and the other by a cat in Eastbourne in November.

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Redwing, Cissbury, 17 October (Val Bentley)

Dartford Warbler territories on the Ashdown Forest in 2021

Martin Jeffree



Dartford Warbler, Ashdown Forest, May 2021. (Martin Jeffree)

Introduction

The Dartford Warbler *Curruca undata* was first described by the Welsh naturalist Thomas Pennant in 1776, based on two specimens that had been obtained by the ornithologist John Latham from Bexleyheath, near Dartford, in Kent (Wikipedia: https://en.wikipedia.org/wiki/Dartford_warbler). In the UK, it is the iconic species of lowland heath, defined as heathland below 250 metres above sea level (asl) (Wotton *et al.* 2009) and is found in few other habitats. It is predominantly found south of a line between the Severn and the Thames Estuaries but it has been expanding its range northwards in recent years and it now breeds in suitable habitats in Wales, central England and East Anglia (Balmer *et al.* 2013). The world range of the Dartford Warbler is restricted to western and southern Europe with the largest numbers in Spain. For reasons that may include habitat and climate change, the Spanish population appears to be declining (Wotton *et al.* 2009) and the British population may become more important in the future. In the UK it is at the northern edge of its geographical range and it is well documented that its population is very susceptible to cold winters. In the early 1960s numbers fell from c.450 pairs nationally in 1961 to 11 pairs in 1963 (Tubbs 1967) following the two particularly harsh winters of 1961/62 and 1962/63.

National surveys of Dartford Warbler numbers were conducted in 1974 (Bibby & Tubbs 1975), 1984 (Robins & Bibby 1985) and 1994 (Gibbons & Wotton 1996). The species is monitored annually by the Rare Breeding Birds Panel (RBBP). A fourth full Dartford Warbler survey was undertaken in the UK and Channel Islands in 2006 (Wotton *et al.* 2009) and in 2017 the Sussex Ornithological Society (SOS) conducted a county survey of Dartford Warblers and Woodlarks (Crabtree 2017). The SOS has recorded Dartford Warbler numbers on the West Sussex Wealden Heaths for the Wealden Heaths Breeding Birds Survey (WHBBS), annually since 1997 (Perry 2016).

More recently, Dartford Warbler numbers on the Ashdown Forest (the Forest) are likely to have suffered in three successive cold winters between 2008 and 2011. Thirty-eight territories were recorded on the Forest in 2006 (Wotton *et al.* 2009) but we do not have reliable numbers for 2011. The ability of Dartford Warbler to recover in numbers and range after a severe winter is also well documented (Wotton *et al.* 2009, Clark & Eyre 2012). In recent years, as well as a northward range expansion, there has been an altitudinal expansion into upland heath areas (Bradbury *et al.* 2011).

In the spring and early summer of 2021, 23 volunteers, predominantly members of the Ashdown Bird Group (ABG), conducted a survey of the Dartford Warbler breeding territories on the Forest. Its aim was to document the breeding numbers amid concern that the species appeared not to be doing as well there as on other Special Protection Areas (SPAs) for which the Dartford Warbler is a designated species (Richard Cowser pers. comm.).

The ABG is a group of about 30 experienced birdwatchers who, collectively, have monitored birds on the Forest for approximately 25 years. Each member has been allocated an area (patch) of the Forest and records the birds there on a regular basis. They are thus familiar with their patch and know the birds on it well. Records are logged on the ABG website or, more recently, on BirdTrack from where they are made available to the SOS and the BTO. One member remembers, in the late 1980s, the first sighting of a Dartford Warbler on the Forest since the county-wide extinction of the species by 1981 (Thomas 2014) causing much excitement at the Sussex Biodiversity Record Centre and the Sussex Wildlife Trust.

Ashdown Forest today represents one of the remnants of a vast area of woodland and heath that stretched for 48 kilometres north to south between the North and South Downs and for over 140 kilometres east to west from Kent to Hampshire. In 1693 the Forest was divided up, and it assumed its present-day shape. Just over half of it, in portions, tending to be located towards the centre was allotted for “enclosure and improvement” by private interests. The rest was retained as common land for use by those local landowners and tenants who possess rights of common. It rises to 223m asl and very little of it lies below 120m asl. It is very irregular in shape, roughly like an inverted triangle, approximately 11km across and a little less from north to south. It was a medieval Royal hunting forest surrounded by a 37km long ditch and bank (pale), parts of which are still evident, enclosing an area of 5,648 hectares (ha). Large parts within this area are in private ownership with no public access, but approximately 3,207 ha of it, especially around its periphery, is common land, administered by the Conservators of Ashdown Forest.

Much of the wildlife, particularly the birds, will not respect the administrative boundaries within the Forest, although it might be affected by the way the different areas are managed. It is useful to think of the Forest, as much as possible, as one very large site, although monitoring of the privately owned areas is difficult and sometimes impossible.

The present study predominantly involved the “common” portions of the Forest, administered by the Conservators of Ashdown Forest, which now constitutes the Ashdown Forest SPA, and also, with permission, Ministry of Defence controlled land at Pippingford Park and the Old Lodge Nature Reserve managed by the Sussex Wildlife Trust.

In October 2020 Richard Cowser, Conservation Officer at the SOS wrote expressing concern about the low numbers of Dartford Warblers on the Forest and pointing out that with Nightjar it is one of two species for which the Ashdown Forest is designated as an SPA for birds, based on holding more than 1% of the British population. The most recent national population estimate for Dartford Warbler was 2,200 pairs in 2017 (Woodward *et al.* 2020). Thomas (2014) estimated, from records largely submitted by the ABG, that there were over 80 breeding pairs of Dartford Warblers on the Forest in 2001. The SOS county survey of Dartford Warblers reported an estimated 18 pairs on the Forest in 2017 (Crabtree 2018).

Concern about the low numbers did not reflect the recent experience of members of the ABG, several of whom felt that Dartford Warblers were doing quite well on the Forest. We were given to understand that the SOS was planning to conduct a county-wide survey of Dartford Warbler numbers in 2027, which seemed a long way off if there was real concern about numbers on the Forest. It was felt therefore that it would be helpful if the ABG were to conduct a survey of Dartford Warbler numbers on the Forest in 2021.

Survey Methods

As stated, the Forest has been divided up by the ABG into patches, each monitored by an individual member. In most instances each patch was surveyed for Dartford Warblers by the member who was familiar with it (Fig.1).

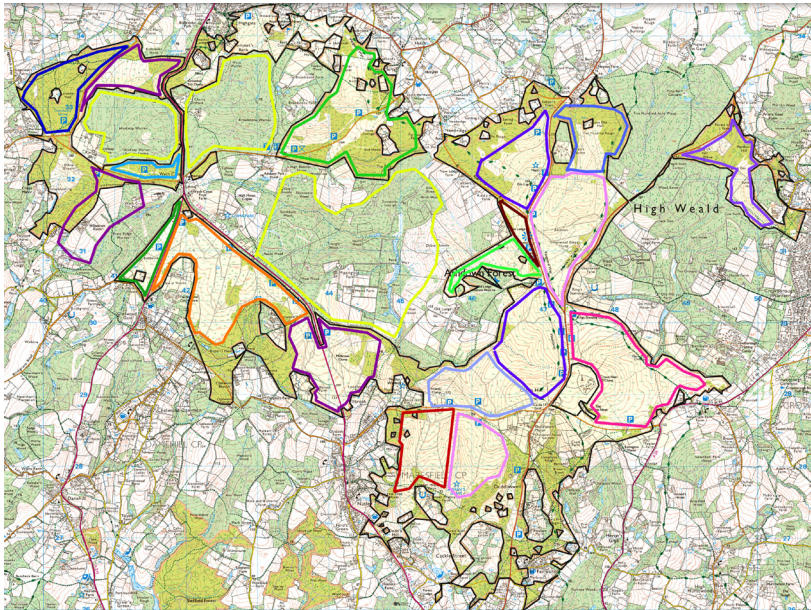


Figure 1. The Ashdown Forest. The limits of the areas controlled by the Conservators of the Forest are indicated by the black line. The areas monitored by different individual observers are indicated, approximately, by other colours (with some overlap in a few cases). The different colours only serve to separate one observer's area from another's. Note that some areas outside of the control of the Conservators were monitored, such as Pippingford Park, the Old Lodge Nature reserve and Broadstone Warren.

The methods were informed by the study undertaken by Helen Crabtree in 2017 but were not identical. Observers were asked to make five visits to their patch or patches on the Forest, at approximately three-weekly intervals from 1 Mar to the beginning of June and to record the number and location of singing males, or of birds showing other territorial behaviour. They were asked to make their visits in the morning, to avoid poor weather, to plot the locations of territorial birds on 1 in 25,000 Ordnance Survey Maps using standard BTO territory-mapping notation and also to record, if possible, an eight-figure grid reference for each location using a GPS device. This would give a theoretical accuracy of ± 10 metres. In practice, some observers recorded six-figure grid references, giving an accuracy of ± 100 m. The presence of a singing male, individuals or a pair showing other territorial behaviour or the presence of individuals at a location on more than one occasion was taken to indicate a territory. We used simultaneous observations to delineate closely spaced territories.

As in the 2017 survey, observers were asked to record, for each territory, the habitat within the whole extent of the territory (or within a 50 m radius of a singing male) and select from the following habitat categories the main habitat type and also up to three other habitat types if applicable: heather, bracken, gorse, uneven tussocky grassland, short/grazed grassland, other plants/shrubs/scattered trees and recently cleared ground/felled trees.

The location of each record was plotted onto 1 in 25,000 Ordnance Survey maps, using the eight or six-figure grid references, on a computer using software available on the Ordnance Survey website. From this, each record was transcribed onto a whole Forest map using a programme called 'Paint'. The number of territories was counted from the whole Forest map.

Playback refers to the playing of a recording of a bird's song to attract that species out into the open for observation or to stimulate a vocal response. It is an important tool in a survey such as this, to help get as accurate a figure as possible for the number of territories present. It must be used sensitively however to minimise disturbance. For the purposes of this survey, permission to use it was sought from Natural England and it was given. It was only used at all, however, by 58% of recorders. 32% used it occasionally and only 26% used it frequently. The recordings were played briefly, a maximum of twice for each likely location where a Dartford Warbler had not already been heard or seen, on mobile phones without additional amplification. The recordings were obtained from commercially available mobile phone applications such as iBird UK and the Collins Bird Guide.

Results

Dartford Warbler territory numbers

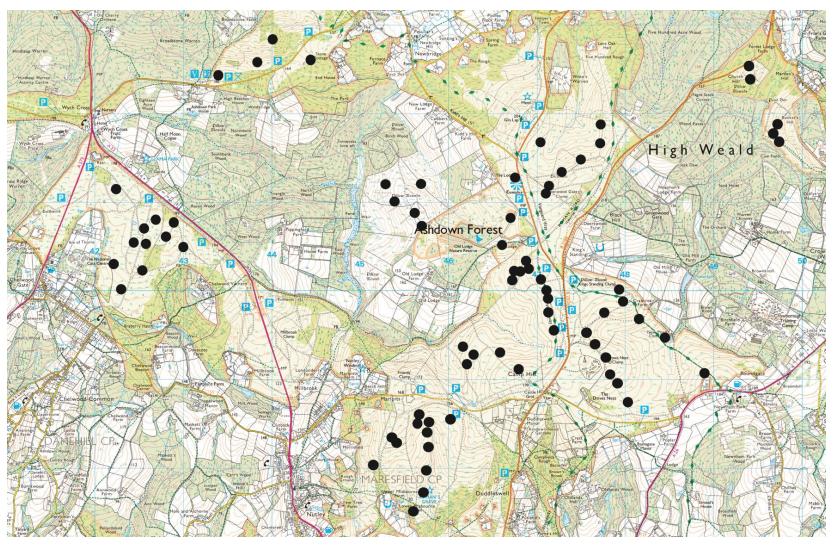


Figure 2. Dartford Warbler territories (black dots).

At least 74 Dartford Warbler breeding territories were identified in the whole of the survey area of which three were in the Old Lodge Nature Reserve and four in Pippingford Park.

Figure 1 shows that, broadly, there was good observer coverage of the open areas of the Forest. In Figure 2 it can be seen that the observed Dartford Warbler territories tended to follow the major pathways or rides over the Forest. The most likely reason for this of course is that these are where observers will have chosen to walk. The Dartford Warbler is a skulking species and individuals far from a footpath may have been overlooked. Much of the ground on the Forest away from the footpaths is boggy and tussocky and difficult or even treacherous to cross. This may have led to a degree of under-reporting but it would be speculative to quantify it.

Territories were most numerous in the following areas: the regions of the Airman's Grave (12 territories), the Old Airstrip (11 territories), west of the B2026 and between Camp Hill Clump in the south and Lodge Car Park in the north (15 territories), east of the B2026 between the Police Training Centre and Poundgate (12 territories), and Wren's Warren Valley (seven territories).

A few areas revealed no territories although they were surveyed and held habitat apparently suitable for Dartford Warblers. These included the Millbrook area to either side of the A22, the triangle of land near Churlwood Car Park, to the west of the A275 and to the east of Press Ridge Warren, and Gill's Lap. Dartford Warblers have been seen in all of these areas before the survey and in some of them after the survey period. Together their area is about a quarter of that in which Dartford Warblers were seen leading to the somewhat speculative conclusion that the number of territories on the whole Forest could have been as many as 90.

Playback may have been partly responsible for the increase in Dartford Warbler territories detected since Helen Crabtree's survey of 2017. To address this possibility we calculated the number of territories detected by observers who did not use playback or who found that it did not increase their detection rate. In this survey 57 territories were found without the use of playback of which 45 were found in tetrads which contained at least one territory in the 2017 survey, an increase of 27 in these tetrads. Playback of course does not create birds which are not present. I conclude that although its use may have increased our detection rate there was a real increase in the number of territories between 2017 and 2021.

Habitats

A mixture of gorse and heather was by far the most common habitat where Dartford Warblers were recorded with bracken also being present frequently. In 59% of locations, gorse was the main habitat and in the remaining 41% it was heather.

Eighty percent of the locations where gorse was the main habitat had heather as a subsidiary habitat whilst 45% had bracken. These add up to more than 100% because more than one subsidiary habitat could be recorded for each main habitat.

Seventy five percent of the locations where heather was the main habitat had gorse as a subsidiary habitat whilst 56% had bracken.

Discussion

No Dartford Warbler territories were recorded on the Forest in the surveys of 1963, 1974 or 1984 although there were good numbers on the Dorset Heaths in the latter two years and a reasonable population on the Wealden Heaths in 1984. By 1994 twenty-eight territories were recorded on the Forest whilst the numbers on the Dorset Heaths had risen five-fold since 1984 and those on the Wealden Heaths had risen nearly four-fold. Between 1994 and 2006, numbers on the Forest rose 36 percent and there were strong rises in the Dorset and Wealden Heaths but declines were observed in the East Devon Heaths and New Forest (Wotton *et al.* 2009). In her paper on the 2017 survey, Helen Crabtree (2018) does not give a figure for the number of territories on Ashdown Forest alone but she does give an overall figure of 39 territories for Sussex and, in a personal communication, she has given an estimate of 18 territories on the Forest, a decline of 53 percent since 2006. In the cold winter of 2017/18 Dartford Warbler numbers reduced on the New Forest from between 400 and 500 territories in 2017 to 143 territories in 2018, a reduction of between 64% and 71% (Clements 2019) showing the vulnerability of the species to cold winter weather. Regrettably we do not have a figure for Dartford Warbler numbers on the Forest in 2018 but they could have been at a very low ebb indeed.

This study showed a population of at least 74 Dartford Warbler Territories on the Ashdown Forest in 2021, an apparent fourfold increase since 2017.

Table 1 gives comparative figures, where available, for Dartford Warbler numbers on the Ashdown Forest and on the West Sussex and the Wealden Heaths. The West Sussex Heaths are a highly fragmented group of 25 small heaths with a total area of 1305 ha (Perry 2016) of which 11 are regularly surveyed. This compares with an area of 3207 ha controlled by the Conservators of Ashdown Forest. The density of territories on the Forest is therefore a little lower than that on the West Sussex Heaths despite the fragmented nature of the latter.

	1963	1974	1984	1994	2001	2006	2017	2018	2021
Ashdown Forest	0	0	0	28	80	38	18	-	74
W. Sussex Heaths	-	-	-	-	1	63	26	4	41
Wealden Heaths	0	1	43	156	-	272	-	-	-

Table 1. Dartford Warbler territories on the Ashdown Forest and Wealden Heaths SPAs and for the West Sussex Heaths which do not have SPA status (Perry 2016). (Compiled from this study's results, Wotton *et al.* 2009, data from the Wealden Heath Breeding Bird Study published in the Sussex Bird reports annually and personal communication from Helen Crabtree).

Habitat

Apart from climate, the other factor which has an important effect on Dartford Warbler numbers is habitat. It is a bird of heathland particularly lowland heath and it is found in few other habitats. Crabtree (2018) found that gorse was the most common dominant habitat type, present in 56% of territories. Heather was the dominant habitat in 31% of territories. Heather was also the habitat type associated with the greatest number of territories (84%) whilst gorse was associated with 72% of territories. Our results were similar, showing the importance of a mixed habitat of gorse and heather and with bracken frequently being present.

There appears to be little or no reliable data on the areas of the Forest covered by particular habitat types. The Joint Nature Conservation Committee (JNCC) website (<https://jncc.gov.uk/our-work/list-of-spas/#england>) gives information, including habitat types, for the English SPAs. For the Ashdown Forest, this website only recognises three habitat types, heath and scrub (50%), bog (10%) and mixed woodland (40%). Grassland is not mentioned as a separate category; however it is a common and widespread habitat type on the Forest. A few minutes perusal of satellite view on the Ordnance Survey website, or on Google Maps will show that there is surprisingly little ideal Dartford Warbler habitat (mixed gorse and heather) on the Forest, with large areas of woodland, grass and confluent gorse, none of which are ideal Dartford Warbler territory. There is work in progress on this matter but the information is not yet thought to be reliable. It is at least likely that, if possible, conversion of grassland and confluent gorse to mixed gorse and heather would result in an expansion of the Dartford Warbler population.

This study gives an estimate for the number of Dartford Warblers on the Ashdown Forest SPA in 2021. It cannot give comparative figures for the Wealden Heaths; however in 2006 the Wealden Heaths SPA held approximately seven times as many Dartford Warbler territories as the Ashdown Forest SPA (Wotton *et al.* 2009). Area alone cannot account for these differences, the Wealden Heaths (combined phases 1 and 2) SPA being only 22% larger than the Ashdown Forest. It is possible that the mix of habitats on the two SPAs is a reason but we do not have sufficient data to show this. The JNCC data suggests that the Ashdown Forest is 50% heath and scrub, and the combined Wealden Heaths is 53%. If true, these rather similar figures alone cannot account for the known differences in Dartford Warbler numbers. Figures from the Wealden Heaths Breeding Birds Survey show that the Forest held 80% more Dartford Warbler territories than the West Sussex Heaths in 2021.

Altitude

Although the Forest is classified as lowland heath (below 250m asl), it is of relatively high altitude compared with the Wealden Heaths and to six of the surveyed West Sussex Heaths. The highest point, the Greenwood Gate Clump, is 223m asl and very little of the Forest lies below 120m asl. There is a meteorological recording station at Wych Cross, lying within the boundaries of the Ashdown Forest. Table 2 gives the average minimum air temperature by month in December, January and February for the averaging period (1981 – 2010) for observation stations at Wych Cross, Herstmonceux and Charlwood (the observation station closest to Gatwick Airport). The Wych Cross recording station lies at 200m asl, Herstmonceux lies at 55m and Charlwood lies at 67m asl. For the most part, the average minimum winter temperatures were lower at Wych Cross than at the other sites with the exception of Charlwood in December where the average minimum of 1.5°C was lower than at Wych Cross or Herstmonceux but December is not generally the coldest month of the year and this temperature was higher than the January and February minima at Wych Cross.

	Wych Cross	Herstmonceux	Charlwood
December	2.2	2.64	1.55
January	1.01	2.13	1.17
February	0.63	1.79	1.02

Table 2. *The average minimum air temperature, degrees Celsius, by month in December, January and February for the averaging period (1981 – 2010) for observation stations at Herstmonceux, Wych Cross and Charlwood, the observation station closest to Gatwick Airport (Dr Catherine Ross, Archivist, Met Office National Meteorological Archive, pers. comm.).*

Wotton, *et al.* show, in their 2009 paper that in the 1974 and 1984 national surveys, very nearly 100% of territories were below 120m asl. By 1994 this had fallen to 89% and in 2006 to 79% below 100m asl with one territory as high as 462m asl on Exmoor. Looking at his bar charts however, there is still a dramatic drop off in numbers of territories above about 120m asl. The vast majority of the Ashdown Forest lies above 120m asl and it rises to 223m asl. The majority of Dartford Warbler habitats nationally lie below the level of the Ashdown Forest.

The differences in minimum winter temperature on the Ashdown Forest compared with the nearby but lower recording sites of Herstmonceux and Charlwood do not seem great, but for a species approaching the northern limits of its geographical range, and which is known to be susceptible to cold winters, the differences could be significant. Thus, the altitude of the Ashdown Forest, potentially affecting climate, particularly minimum winter temperatures, could be a contributory negative factor determining the numbers of Dartford Warbler territories on the Forest. This point is perhaps illustrated by data from the West Sussex Heaths. Of the six surveyed heaths lying below 100m asl (Perry 2016) four held a combined total of 18 Dartford Warbler territories in 2017 (Wealden Heaths Breeding Birds Survey data). Following the severe winter of 2017-18 this number fell to 17 territories in 2018, a reduction of 6%. On Black Down however, lying at 280m asl, Dartford Warbler territories fell from 7 in 2017 to 4 in 2018, a reduction of 43%.

Disturbance

The Ashdown Forest SPA is largely common land with unrestricted public access and it is well used for recreation by walkers in general and dog-walkers in particular. This has been particularly the case during the eighteen months or more of the COVID-19 pandemic. Clearly human and canine disturbance could be a factor affecting Dartford Warbler numbers but this study was not designed specifically to study it.

Conclusions

In the spring and early summer of 2021 a limited survey of Dartford Warbler breeding territories on the Ashdown Forest was undertaken, predominantly by members of the Ashdown Bird Group. Seventy four breeding territories were identified, a gratifying increase compared to 18 estimated territories in 2017. To retain its SPA status in respect of Dartford Warblers, the Ashdown Forest should hold at least 1% of UK territories. The number of UK territories in 2021 is unknown but the figure in 2006 was estimated to be 3214 pairs (Wotton *et al.* 2006) and the estimated figure in 2017 was 2200 pairs (paragraph 9). The Ashdown Forest population in 2021 is 2.3% of the 2006 figure and 3.4% of the 2017 figure, well above the threshold for SPA status. What is more, the Ashdown Forest is undoubtedly the most important breeding site for Dartford Warblers in Sussex.

Habitat and climate appear to be the most important factors affecting Dartford Warbler numbers and management of the Ashdown Forest to increase the area covered by mixed gorse and heather may help to increase their numbers in the future. The influence of altitude on climate may be significant.

Acknowledgements

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Finally I would like to thank Dr Ken Smith for his help and advice. He spent much time and made many suggestions to help me improve this paper.

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Dartford Warbler (male), Ashdown Forest, 27 May 2021. (Martin Jeffree)

2020 - 2021 Sussex Honey-buzzard survey

Mark Mallalieu and Mike Scott-Ham

Introduction

This paper presents the results of a survey of Honey-buzzards *Pernis apivorus* in Sussex in 2020 and 2021 that was part of a national survey organised by the Rare Breeding Birds Panel (RBBP) and Honey-buzzard enthusiasts (Clements *et al.* 2022). The aim of the national survey was to assess the current status of the species in the breeding season across Britain using a consistent approach, partly because previous estimates had varied widely.

The species was first proved to nest in Sussex in 1976, but breeding may have taken place in 1971, 1972 and 1974 (Thomas 2014). Given the secrecy surrounding the species in Sussex and the difficulty in detecting birds, it is possible that pairs nested in earlier years. Almost all past breeding records are from the Weald, in areas of mature mixed woodland with farmland and/or heathland, and widely spread across the interior of the county. In some years, pairs have nested on the South Downs in West Sussex. In the period between 2000 and 2019, up to seven pairs bred annually, and additional non-breeding pairs and unpaired birds have summered, with much of the fieldwork that produced records being carried out in support of a long-term national Honey-buzzard ringing and research programme.

Honey-buzzards are difficult to survey even once a fieldworker has gained the experience to identify them at distances of up to three to five kilometres, which is both necessary for survey work and possible with good optical equipment. The birds spend much of their time out of sight in woodland and long periods of watching over suitable habitat may yield no sightings even though



Figure 1. Adult male Honey-buzzard shortly after flying from nest to gather wasp comb for young, Sussex, 20 August 2020. This male and its mate bred in 2020 and 2021 at the same location. (MM)

one or more birds may be present. They are most easily detected when in territorial flights over woodland, including during the spectacular ‘wing-quivering’ display; during aerial interactions with conspecifics or other birds of prey and perceived threats such as Ravens *Corvus corax*; and when on feeding movements (Figure 1), though the latter can take place out of sight along valleys or through woodland. Males in particular can also be very inquisitive, sometimes coming close to observers even when 1 km or more from the nesting wood, giving superb views (pers. ob.). Non-breeding birds may be detected more easily as they may spend long periods in the air and display far more intensively than breeding birds (pers. ob., McInerny & Shaw 2022). Recently fledged juveniles may also be seen above the canopy practicing their flying skills before migration. Some adults may leave in August, before the young fledge, leaving the task of provisioning them to the remaining parent.

Methodology

The majority of the Sussex survey was carried out by three individuals, but with valuable contributions from many other observers who surveyed sites, in some cases involving many hours of fieldwork, and from others who reported their chance encounters with Honey-buzzards during the breeding seasons (see acknowledgments). The fieldwork took place between 17 May and 1 Sep 2020 and 11 May and 8 Sep 2021. It was based on the recommended methodology for the national survey (Clements & Holling 2020). The Sussex effort involved checking all the 24 sites known to have held presumed territorial Honey-buzzards in the breeding season between 2010 and 2019, including breeding pairs, non-breeding pairs and individuals. In addition, some other sites considered potentially suitable for breeding pairs were also surveyed. However, coverage of such sites was very incomplete for four reasons: (i) the limited number of observers available to carry out survey work; (ii) the time needed to cover the known sites and undertake follow up visits to confirm whether birds were paired, breeding or unpaired; (iii) so much of Sussex contains potentially suitable habitat; and (iv) the occasional appearance of pairs or individual Honey-buzzards in unexpected locations showed that initial assumptions about what constituted suitable habitat were too restrictive. A standard volunteer-based survey based on searching random squares of suitable habitat was not considered workable given the complications of finding viewing points, detecting and correctly identifying the species and the very low probability of volunteers finding birds at new sites.

The 24 known sites mentioned above were checked at least twice over each of the two seasons with a minimum of two watches of three hours or more in at least one year. Some effort was also made to locate nests as part of the national Honey-buzzard ringing and research programme.

Twelve sites where no territories had been recorded between 2010 and 2019 were surveyed at least once over the two years, though not all used optimum search techniques. In addition, MSH walked large areas of potentially suitable habitat, which resulted in some records. Importantly, several observers not participating in the main survey effort reported chance encounters with Honey-buzzards during the breeding season at a further ten sites and these were followed up by experienced fieldworkers.

Type of search	Hours
Scanning known or potential sites	225
Looking for evidence of breeding	190
Searching for nests	60
Total	475

Table 1. Survey effort in Jul to Sep 2020

The greatest observer effort was in the period from mid-July to the end of August, consistent with the national survey guidance that the peak in visible activity for most breeding Honey-buzzards is around 20 Jul to 20 Aug. In July, August and September 2020, a record was made of hours spent surveying by ten observers, which gives an indication of the effort required in survey work for this species:

Where possible, Honey-buzzards were photographed to build up a gallery from which individual birds could be identified. Since individuals, both male and female, may vary greatly in plumage pattern and colouration, extent of breeding season moult of flight feathers, and sometimes feather damage (Figure 2), it is usually, but not always, easy to identify each bird if a reasonably good photograph is taken.



Figure 2. Individual Honey-buzzards are rarely as distinctive as this adult male that is regrowing its entire tail. It was paired, but not breeding. Sussex, 31 July 2021. (MM)

For each site where Honey-buzzards were detected, an attempt was made to classify their presence as follows:

Status	Evidence
1. Confirmed breeding	Pair present in breeding season and at least two sightings of food being taken to nest at a time when young would have hatched <u>and/or</u> multiple sightings of more than one adult and flying juvenile(s) subsequently seen <u>and/or</u> fledglings ringed at nest.
2. Failed or non-breeding pair	Pair present for at least a week in breeding season but either no sightings of food being taken to a nest or if observed these stopped well before young would have fledged.
3. Other pair	Pair present on at least one day in breeding season, not feeding young and no further evidence of status.
4. Juveniles only	Juvenile(s) only, seen over suitable breeding habitat, inland before mid-September.
5. Unpaired male	Two or more sightings of the same male in the same area in the breeding season at least seven days apart, in suitable habitat. Display good further evidence (unpaired male may carry e.g. frog when displaying).
6. Unpaired female	Two or more sightings of the same female in the same area in the breeding season at least seven days apart, in suitable habitat. Display good further evidence.
7. Other	Sightings of single adults mid-June to mid-August, with no further evidence as to breeding status, and excluding individuals known to come from another site in Sussex or neighbouring county. Records within 5 km of occupied sites excluded unless definitely a different individual.

Table 2. Breeding status categories with corresponding evidence.

It should be stressed that it is often difficult to interpret observations in the field. The results below are based on an informed interpretation of sightings and photographs made over the many hours of field work in the survey period, supported by experience gained over many years. Whilst we have a high degree of confidence that the results for categories 1, 2, 3, 5 and 6 are all correct, category 4 might include juveniles that had already moved a long distance from where they fledged; and category 7 makes a somewhat arbitrary cut-off of 5 km from a known site to define a new site, so there is some scope for misinterpretation of sightings except where photos proved that additional birds were involved. Category 2 was formulated to cover, for example, instances where pairs build 'summer nests' and may visit the nest with food, but do not breed (Roberts & Law 2014). However, this category could also include instances where breeding was attempted, but the young died soon after hatching. Without observations at the nest it can be difficult to distinguish between failed breeding and non-breeding pairs.



Figure 3. Male Honey-buzzard carrying wasp comb, Sussex, 13 July 2020. This male was paired, but was either not breeding or the attempt failed. (MSH)

An example of a category 2 record comes from one site where there was significant activity early in the 2020 season, with the male photographed on 13 Jul carrying wasp comb towards where the nest was thought to be located (Figure 3) and being seen in apparent outbound feeding flights on other occasions. However, his behaviour changed markedly by mid-July when he would spend much time roaming around the general area and with many instances of prolonged displaying. He was still present on 20 Aug. The likely female was also seen on 13 Jul, carrying food for a long period, but clearly not provisioning young. In this case, there may have been a 'summer nest' or possibly there was a breeding attempt that failed. In the absence of definite evidence of a breeding attempt, we have preferred to record this pair as failed/non-breeding. Most or all category 3 records are considered likely to relate to non-breeding pairs.

Results

These are summarised in Table 3 for status types 1 to 6.

The total territories for 2020 is a range: 13 excluding the sites where only juveniles were seen and 15 if those sites are included. Of the seven breeding pairs in 2021, two were at sites that were not surveyed in 2020. Three sites in Sussex where breeding occurred in 2020 did not hold pairs in 2021, though one held a non-breeding pair and one pair probably moved into an adjacent county.

In relation to category 7 ('Other'), between nine and twelve Honey-buzzards were seen inland at other locations during the 2020 breeding season (Figure 4). Photographs in 2020 showed that at least six of the birds were definitely additional to those already included in the totals, and the distances from known sites suggest that all were probably additional. The total for category 7 in 2021 was seven and it was considered highly probable that all these were additional to individuals included in other categories.

Status	2020	2021
1. Pair with young	7	7
2. Failed or non-breeding pair	3	3
3. Other pair	1	2
Total pairs	11	12
4. Site with juvenile(s) only	2	-
5. Unpaired male	2	6
6. Unpaired female	-	-
Total territories	13 – 15	18

Table 3. Survey results: Status types 1-6 by year.



Figure 4. Adult female Honey-buzzard over West Sussex Downs, 30 July 2020. An example of an individual categorised as 'other': it displayed, but there were no further sightings, despite searches, and no accompanying male was seen. (MM)

All the pairs and individuals found in both years were in inland areas with mature mixed broadleaf and coniferous woodland with adjacent farmland or heathland, consistent with past records and with the findings for south-east England reported by Roberts & Law (2014). However, one breeding pair was found in the High Weald just 8.5 km from the coast, much closer than any previous pairs (13 km inland being the closest previously known). It was 35 km from the closest known breeding pair, compared to 10 km for all other pairs since at least 2010. Also, a male was found, possibly on territory, in woodland a similar distance from the coast.

The earliest date over the two years when adult Honey-buzzards were seen in breeding habitat was 11 May 2021 and the latest was 8 Sep 2021. The latest definite date for juveniles seen over their natal woodland was 3 Sep 2021, although another was photographed well inland on 11 Sep 2021. However, observer effort tailed off at the end of each season and juveniles especially may have lingered in their natal areas further into September.

Discussion

Population estimate

Given the site fidelity displayed by Honey-buzzards in Britain (Roberts & Law 2014), it is possible that the two additional breeding sites found in 2021 were also occupied by pairs in 2020. If so, that would take the total pairs for 2020 to 13 and the total territories to between 15 and 17. The large tracts of Sussex that were not surveyed and the discovery in 2021 of a pair 35 km from the nearest known pair, might suggest that many pairs remained undetected. However, this has to be set against the results of the surveys at 12 sites with no history of summering birds, which located three juveniles and one adult classified as “other individual”, but no new pairs; and the limited number of chance encounters, especially those that led to new sites being confirmed (three out of ten encounters). Further, the fieldwork in past years under the ringing programme might have been expected to uncover evidence of Honey-buzzards in most of the sites where they may breed, though almost certainly not all. The number of pairs may also fluctuate considerably from year to year. Between 2010 and 2019 an average of five pairs (both confirmed breeders and others) was recorded in Sussex each year and the total number of pairs varied between one and seven.



Figure 5. Unpaired male Honey-buzzard displaying, Sussex, 21 July 2021. (MM)

In addition, a variable number of unpaired birds, perhaps all or mostly males (Figure 5), are present each summer. The reason for this apparent sex bias is not known. The number of unpaired birds was three times higher in 2021 than in 2020, but with only two years in the survey, we cannot be sure whether such fluctuations are typical (the Society's database does not hold full records of summering Honey-buzzards; past Sussex Bird Reports cannot be used for longer term comparisons as data are deliberately imprecise to safeguard the locations of actual or possible breeding sites; and there is also some overlap between records from the team studying Honey-buzzards and those from other observers).

Taking all these considerations into account, we estimate that Sussex holds about 15 pairs of Honey-buzzards. Of these, up to about half may breed successfully in any one year, fewer in some summers including those with exceptionally high rainfall (Kalahar 2013), and with variable numbers of unpaired birds. However, the fieldwork undertaken in 2020 and 2021 has led to a better understanding of which parts of the county need improved coverage and further work may lead to an increase in this population estimate.

When compared with the population found during the two years of the national survey, the seven confirmed breeding pairs found in both years in Sussex represent between 14% and 18% of those found in Britain, where 48 confirmed breeding pairs were found in 2020 and 39 in 2021. When compared with the English population, Sussex accounts for around 28% of confirmed breeding pairs, with 25 such pairs being located in England in 2020 and 24 in 2021 (Clements *et al.* 2022). Allowing for differences in national observer effort, we estimate that Sussex likely holds at least 10% of British breeding and non-breeding pairs. The proportion of pairs that did not breed in Sussex in 2020 and 2021 is consistent with research in Britain showing that Honey-buzzards may pair for several years before attempting to breed (Roberts & Law 2014).

Breeding density

The closest nearest-neighbour distance (NND) between two nests in 2020 and 2021 was less than 1.5 km, which seems remarkable, but NNDs of under 2 km have been recorded elsewhere in Britain and of under 0.5 km in the Netherlands (McInerney *et al.* 2018, Roberts & Law 2014), whilst research in Austria also found NNDs of less than 2 km (Gamauf *et al.* 2013). One area of just 20 km² in Sussex held four pairs in 2020, a density of one pair per 5 km². This is very high for Britain, though a density of one pair per 3.8 km² over 100 km² has been recorded in Austria (Gamauf *et al.* 2013).

Threats and conservation

Honey-buzzards in Sussex face few threats when nesting, with accidental disturbance by forestry work being one possible risk and, increasingly now, Goshawks may kill some young and even adults. No nest has ever to our knowledge been targeted by egg collectors in the time we have been doing this fieldwork, but this could still be a risk. Poorly-constructed nests (Figure 6) and interference by non-breeding birds can also affect breeding success.

Fuller details of risks are given in Roberts & Law (2014). Habitat destruction or disturbance from large new developments ought not to be an issue since the High Weald Area of Outstanding Natural Beauty (AONB) and the South Downs National Park (SDNP) cover all known Honey-buzzard breeding sites in Sussex, but recent threats to the AONB show that this assumption may be wrong.

Finding Honey-buzzards

Migrants from Sussex or other parts of Britain (and occasionally from Continental Europe) are sometimes seen by fortunate or persistent observers at or near the coast in spring and autumn, with Beachy Head being a favoured area. Here we address the challenge of finding birds on their breeding grounds.



Figure 6. Fledgling Honey-buzzards at a poorly-constructed nest in Douglas Fir, Sussex, 27 July 2020. The nest was rebuilt by a researcher. (Steve Roberts)



Figure 7. Breeding male Honey-buzzard soaring in ideal weather conditions, 10 August 2020 (same individual as Figure 1). (MSH)

As mentioned in the introduction, Honey-buzzards can be very secretive and difficult to observe in breeding habitat, although knowledge of their habits can lead to success in finding them, especially in areas where more than a single pair is present. Viewing points (VPs) are key in locating the species; accidental sightings whilst wandering in suitable habitat may be few and far between. Knowledge and exploration of suitable areas are useful preparation for watches. Ordnance Survey maps are a very useful resource in identifying possible VPs. One site found to contain Honey-buzzards was located by MSH when stationed at a high point looking for planes in celebration of a notable WWII event!

Ideal weather conditions for observation comprise sun, some clouds and a breeze, which produce thermals for birds to gain height efficiently and display or head off towards feeding locations (Figure 7). Such conditions can lead to multiple sightings and indeed views of other raptors. In good conditions it is not unusual to see six or seven species of raptor in a single watch. During the peak period from late July to late August many observations will be of birds gaining height from a feeding location and flying directly to the nest site, or *vice versa*. More than one such sighting in a short period of time can provide conclusive evidence of an active nest. More noticeable feeding activity occurs in the morning than in afternoons, although inclement weather in the morning can have a significant effect. Warm sunshine immediately after a rain shower or after very cloudy/overcast conditions can precipitate a sudden burst of visible activity. The ‘wing-quivering’ display flight has been seen in Sussex from mid-May to the end of August.

Any non-breeding birds are likely to be attracted by the presence of pairs, and these non-breeders are not only easier to see but they also draw the attention of resident birds, which may fly up and interact with them, so that careful scanning may reveal several individuals in the air at once (Figure 8).



Figure 8. Two breeding male Honey-buzzards (below and right) circling with an intruding male (upper left), Sussex, 9 August 2020. (MM)

A study of Honey-buzzards in Germany tagged four males and three females with GPS satellite transmitters and provided data for 2009-2011 (Ziesemer & Meyburg 2015). The results showed that until August the birds seldom flew more than 2 km from the nest, but thereafter longer flights were made, probably in order to locate additional food resources beyond those being exploited close to the nest. No comparable data on movements is available for Sussex, but in 2020 two males regularly travelled up to 5 km in August to collect wasp comb (Figure 9) and this is probably not uncommon, though in 2016 one male that was provisioning two large young after the female had left regularly flew less than 1.5 km to collect comb; the observer could not help feeling that the male had planned ahead for this contingency (MM, pers. ob.).



Figure 9. Male Honey-buzzard returning to nest with wasp comb after 5 km outward flight, Sussex, 9 August 2020. This male and its mate bred in 2020, then in 2021 in a location 3 km from the previous year's nest. (MM)

We hope that this paper will encourage birdwatchers to spend time looking for Honey-buzzards in Sussex and elsewhere. The upside of their elusiveness is that when birds do appear, even experienced observers feel a rush of excitement and very occasionally a lucky watcher will have an experience such as these encounters by the survey team: a loose flock of six adult Honey-buzzards soaring together above a female Goshawk *Accipiter gentilis*, adults flying low overhead carrying wasp comb to nests, and a juvenile soaring to a great height and leaving its natal area at the start of the long migration to West Africa.

Acknowledgements

We are indebted to a large number of individuals who helped with this survey. Our lead co-worker in 2020 was Dave Burges who undertook many hours of fieldwork that gave a high degree of confidence in the status of Honey-buzzards over a very extensive part of West Sussex in the first year of the survey. The following individuals also made valuable contributions to the survey: Adèle Anderson, Derek Barber, Rob Brewer, Richard Butler, David Campbell, Simon Carter, Brian Cox, Mick Denness, Giles Elliott, John Gowers, Alastair Gray, Gerald Hinchon, Bridget & Paul James, Gareth James, Martin Kalaher, Simon Linington, Paul Matson, Chris & Juliet Moore, Edward Paxton, Matt Phelps, Laurence Pitcher, Ken & Linda Smith, Graeme Spinks and Ed Stubbs. We would also like to acknowledge observers who reported chance encounters with Honey-buzzards: Anthony Brown, Adrian & Ali Hickman, Alison Playle, István Rádi, Allan Roffey, David Sadler, Andy Wilkes and Alan Wilkinson. We received much helpful advice and information from Rob Clements, Steve Roberts and Ken Shaw for which we are most grateful. Many thanks to Dr Ken Smith and Simon Linington for reviewing the draft paper and to Dr John Newnham for his helpful comments.

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A survey of breeding Common Nightingales and Turtle Doves in Chiddingfold Forest

Ken W Smith and Linda Smith

In 2018 the Sussex Ornithological Society (SOS) and Surrey Bird Club were approached by Andy Page, Forestry England (FE) to organise a breeding survey of Common Nightingales *Luscinia megarhynchos* and Turtle Doves *Streptopelia turtur* in the Chiddingfold Forest which spans the Surrey/West Sussex border. The two bird clubs agreed to take this on as a joint survey and to follow the same basic methods with the survey initially planned for 2019. COVID-19 restrictions meant that no survey work was possible that year and even in 2020 the restrictions still in place meant that limited work could be done on Turtle Doves but no Common Nightingale surveys were possible. It was not until 2021 that the full surveys could be completed. This paper gives the results for the Sussex part of the Forest alongside a summary of the Surrey results to provide context.

Chiddingfold Forest consists of a collection of woodlands straddling the Surrey/West Sussex border southeast of Chiddingfold (Figure 1). The majority of the woodlands are in Surrey with just six or so sites falling in West Sussex. The woods are managed by both private owners and FE with a variety of woodland types from magnificent oak/hornbeam stands to coppice with standards and conifer plantations. FE manage just over 800 hectares of woodland and 543 ha are designated as an SSSI (FE, 2016). The Forest is a nationally important butterfly site and in recent years there has been considerable management in collaboration with Butterfly Conservation to open up the rides and create clearings.

The surveys followed standard methods with two visits between mid-April and mid-May to detect Common Nightingales and three visits from mid-May until mid-July to detect Turtle Doves. All surveys were completed in the morning with all registrations mapped on large scale maps. For both species we used the mapped registrations to estimate the maximum numbers of possible territories on each site.

The results are summarised in Table 1 for the six Sussex sites. Coverage was good at the four main sites Ashpark Wood, Kingspark Wood, Birchfield Copse and Hog Wood. Weald Barkfold Copse and Hog Copse are private sites, were not part of the initial FE request for the survey and full access was not possible. Common Nightingales at least could be detected from the boundaries. The table also includes an overall summary of the results for the Surrey sites.

Considering the large overall area of the sites, the numbers of Common Nightingales and Turtle Doves recorded in the Forest in 2021 were quite low. Invariably they were found in the open areas of the forests either in regenerating clearfells or open rides. The dense areas of scrub along the ride edges and in some of the clearfells were especially important for the Common Nightingales. The Turtle Doves were usually recorded in the areas of taller natural regeneration. The management work for the butterfly populations does seem to be also bringing benefits for these birds.

However, the Forest needs to be viewed in the context of the overall landscape in the area. For instance, survey work for the 2022 SOS Common Nightingale survey around Plaistow just to the east of the Forest has found far higher numbers of Nightingales in scrubby areas in the general landscape than were found in the Forest itself. Similarly, Turtle Doves have been found in low numbers in the landscape outside the Forest.

The management works within the forest to open out the rides and create areas of scrub are clearly benefitting these two species but considering the constraints of a commercial forestry operation the scale will always be limited. The fact that both Nightingales and Turtle Doves are

occurring in reasonable numbers in the landscape surrounding the Forests suggests that much could be achieved by appropriate scrub creation and management within the whole landscape.

Acknowledgements

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Site	Central grid ref.	Nightingale territories	Turtle Dove territories
Ashpark Wood	SU 995317	3	0
Kingspark Wood	SU 992310	5	0
Birchfield Copse	SU 985305	3	2
Weald Barkfold Copse	TQ 005325	1*	0
Hog Wood	TQ 015324	4	1
Hog Copse	TQ 016321	nc	nc
Sussex (6 sites)		16	3
Surrey (23 sites)		15	1

Table 1. The numbers of Common Nightingale and Turtle Dove territories in the Sussex survey sites in 2021. Although no Turtle Doves were recorded in Ashpark Wood in 2021, two were found there in 2020. * indicates a bird detected from the site boundary but no full survey was completed. nc – no count.

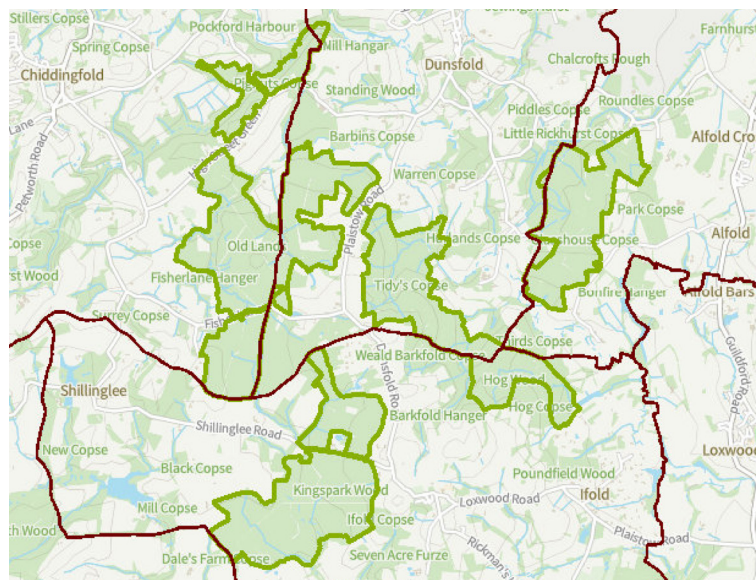


Figure 1. Chiddingfold Forest, lying between Chiddingfold, Dunsfold and Plaistow. The light green shading shows the woodlands and the green boundaries indicate the areas managed by FE. The red lines signify the parish boundaries.



Nightingale, Pulborough Brooks, 9 May (Karen Weston)

Sussex Urban Nesting Gull Survey 2019 - 2021

Alison Giacomelli

Introduction

The Sussex urban nesting gull survey took place over the period 2019 to 2021 and formed part of a national survey over the same period. In turn, the national urban gull survey was part of ‘Seabirds Count’, the fourth census of all breeding seabirds in the UK, which ran from 2015 to 2021. These censuses are repeated approximately every 20 years (JNCC 2021). Both the urban- and natural-nesting parts of the census were co-ordinated by the Joint Nature Conservation Committee (JNCC). This paper focuses on Herring Gull *Larus argentatus* and Lesser Black-backed Gull *Larus fuscus* as they are the two most common roof nesting species in Sussex.

Background

Urban nesting by gulls was virtually unknown before 1940 and took until the mid-1970s to become firmly established. As set out in Table 1, the numbers of roof-nesting large gulls increased massively over the course of the first three national censuses. Whilst numbers grew rapidly, the proportion of the national population nesting in urban areas was still only in single-digit percentages in 1994, but by the turn of the century had grown to c.30% for Herring Gull and c.10% for Lesser Black-backed Gull in England, although these proportions are likely to be under-estimates, given the inherent detectability issues when surveying the urban environment using ground-based surveys (Burnell 2021b).

Species	1976 ¹	1993-95 ²	1998-2002 ³
Herring Gull	1,960	6,383	12,088
Lesser Black-backed Gull	127	952	6,550

¹ Source: Monaghan & Coulson, 1977

² Source: Raven & Coulson, 1997

³ Source: Mitchell *et al.*, 2004

Table 1. Number of roof-nesting Herring and Lesser Black-backed Gulls in England.

Meanwhile, the natural nesting Herring Gull population increased dramatically in the post-war period until the 1970s, likely driven largely by an abundance of food. Additional sources of food included discards from fishing as bigger and more powerful boats were introduced, exploitation of agricultural land, and a reduction in the burning of organic waste and the creation of new landfill sites to take the additional material (Rock 2005; Coulson 2019). This population increase plus food availability, at least initially, fuelled the move to urban areas, which provide many advantages over traditional nesting areas. Roof nesting provides safety from predators, disturbance is low, urban areas are warmer than the surrounding countryside and streetlighting means that adults can forage in the night as well as day.

However, after the 1970s, the total (natural- plus roof-nesting) breeding Herring Gull population declined. The national censuses showed that by the late 1980s, the population had reduced by 48%. This trend continued, albeit at a slower rate (-13%), between then and the Seabird 2000 (1998-2002) census (JNCC 2021). Given the small proportion of the population nesting in urban areas (14% in Seabird 2000), and the increases in roof-nesting shown in table 1, the decline in the overall population has been driven by losses in the natural-nesting population. Consequently, Herring Gulls were added to the red list of Birds of Conservation Concern (Eaton *et al.* 2009).

The reasons for the decline in the natural nesting population of Herring Gulls, which showed large regional variations, are not well understood. Botulism is thought to have been a major factor in declines between the 1970s and late 1980s, which may have been spread at refuse tips, and is also present in wetland sediments. Changes in refuse management in recent years has perhaps reduced the risk of botulism but has also decreased the availability of food scavenged from refuse tips; and reductions in the availability of discards from fisheries may have also contributed to a decrease in the natural nesting Herring Gull population. Ground predators have also had an effect at some colonies (JNCC 2021).

In contrast, the total coastal breeding Lesser Black-backed Gull population increased by 81% over the period of the first three seabird censuses (between 1969-70 and 1998-2002) (JNCC 2021). However, since then the natural nesting population, recorded annually by the Seabird Monitoring Programme (SMP), has declined by 45% (Burnell 2021b). Lesser Black-backed Gulls are on the amber list of Birds of Conservation Concern because a large proportion of the population is found in a small number of colonies, and because the UK supports a high proportion of the international population (Stanbury *et al.* 2021).

Whilst the major natural-nesting colonies are monitored annually by the SMP, there is no reliable equivalent data for the urban nesting population, and so there are no trends available for the urban nesting gull population for the period after the last national census in 1998-2002. This means it is not safe to assume that the urban-nesting gull population trends are moving either by the same amount or in the same direction as the natural-nesting population. Furthermore, published national population estimates of Herring and Lesser-Black-backed Gulls from the Seabird 2000 census are thought to be unreliable due to under-estimates of roof-nesting gulls that resulted from gaps in coverage and from detectability issues using ground-based surveys (as identified by Coulson & Coulson 2015). Consequently, the aim of Seabirds Count was to enable a population estimate for the roof-nesting gull population to be calculated, and to be able to compare this to the natural-nesting population.

Methods

There were two parts to the Seabirds Count urban nesting gull surveys. The first comprised of surveys carried out at the same sites that were surveyed during Seabird 2000. In Sussex, these 'repeat' sites covered the main coastal towns and involved one visit to count all nests within the site visible from the ground.

However, given the expansion in the distribution of urban nesting gulls over the last 15-20 years, an alternative method of estimating the UK breeding population was necessary. Therefore, the second part to Seabirds Count consisted of surveying a stratified random sample of urban 1-km squares (defined as those with more than 2% urban fabric cover in the square). Stratification was based on the county and four urban habitat strata: suburban (discontinuous, residential), industrial, industrial/suburban mix, mostly urban (high density and continuous mix of urban fabric types). This stratification was to allow a correction factor to be applied to account for the varying detectability of gulls in different types of urban habitat.

For each 1-km square, a count was made of:

AON = Apparently occupied nest (well-constructed nest, either containing eggs or young, or capable of holding eggs; or an apparently incubating adult).

AOT = Apparently occupied territory (estimated by the spacing of birds or pairs on different rooftops and observations of apparent territorial behaviour, when actual nests could not be discerned. Any AONs should also be considered a territory, so the number of AOTs will always be equal to or greater than the number of AONs).

IND = Individual adults (total number of birds in full adult plumage).

Also recorded for each square were notes on the use of any gull deterrents or control measures.

Both the repeat sites and 1-km squares were visited once during the peak incubation period (end of April to end of May), to give the greatest chance that birds sitting on nests could be detected.

The urban nesting gull surveys started in 2019, with a focus on the repeat sites. In 2020, the COVID-19 pandemic halted volunteer surveys due to the spring lockdown. However, Defra funded ecological consultants to carry out the surveys for 1-km squares that did not yet have a volunteer allocated. As Government rules stated that travel was allowed for work purposes, the consultants were able to survey 90 squares in Sussex that would otherwise not have been covered. The survey period was then extended into 2021 to allow volunteers to complete their surveys.

Results

Repeat site survey

County	Site	Herring Gull (AOT)		Lesser Black-backed Gull (AOT)	
		Seabird 2000	Seabirds Count	Seabird 2000	Seabirds Count
W Sussex	Chichester town centre	9	6	0	0
W Sussex	Chichester – Bookers Warehouse	50	0	3	0
W Sussex	Littlehampton	10	10	1	1
W Sussex	Haywards Heath Railway Station	1	1	0	0
W Sussex	Shoreham Beach	1	1	0	0
E Sussex	Brighton	224	124 AOT (repeat sites) 86 AOT (1-km squares)*	2	4
E Sussex	Hove	161	143	1	1
E Sussex	Newhaven	55	16	0	0
E Sussex	Bexhill	53	15	6	0
E Sussex	Hastings	18	17	2	1

Table 2. Roof-nesting Herring Gulls and Lesser Black-backed Gulls recorded in Sussex during the Seabird 2000 (1998-2002) and Seabirds Count (2019-21) censuses.

Source: Seabird Monitoring Programme (SMP) Database, currently maintained by JNCC.

*Two 1-km squares covered Brighton and so were covered by this element of the survey rather than duplicating counts. Therefore, the count for Brighton is a combination of the two types of survey.

It should be emphasised that the data in Table 2 for Seabird 2000 and Seabirds Count are not directly comparable. Seabird 2000 aimed to count all the nesting gulls in a particular urban area and Seabirds Count attempted to repeat that. However, urban areas for Seabird 2000 were divided up into sub-sites, with only a central grid reference recorded in the SMP database. This made it difficult to work out how big the count areas had been in Seabird 2000. Therefore, whilst the repeat sites were intended to enable any change in colony size to be detected, it is difficult to be certain about any trend.

Nevertheless, anecdotally, there is certainly no evidence for an increase and there do seem to have been declines in some areas. One of the Seabird 2000 surveyors for Hove counted a similar area for Seabirds Count and found there were now far fewer nests, noting that perhaps the fact

that communal bins are now covered had had an effect (C Barfield, pers. comm.). In other areas, gull deterrents are having an impact. For example, Bookers Warehouse in Chichester had held 50 Herring Gull nests but is now fully netted (pers. obs.). These observations illustrate the conflict between urban nesting gulls and human inhabitants.

1-km square survey

A total of 135 1-km squares were surveyed between 2019 and 2021. Ninety of these were covered by a consultancy in 2020, and 45 were surveyed by SOS volunteers.

County	No. of 1-km squares	Herring Gull				Lesser Black-backed Gull			
		No. of occupied 1-km squares	AOT	AON	Individuals	No. of occupied 1-km squares	AOT	AON	Individuals
W Sussex	71	29 (41%)	254	140	741	5 (7%)	3	1	15
E Sussex	64	27 (42%)	421	262	797	5 (8%)	8	4	20
Total	135	56 (41%)	675	402	1,538	10 (7%)	11	5	35

Table 3. Summary of 1-km square results.

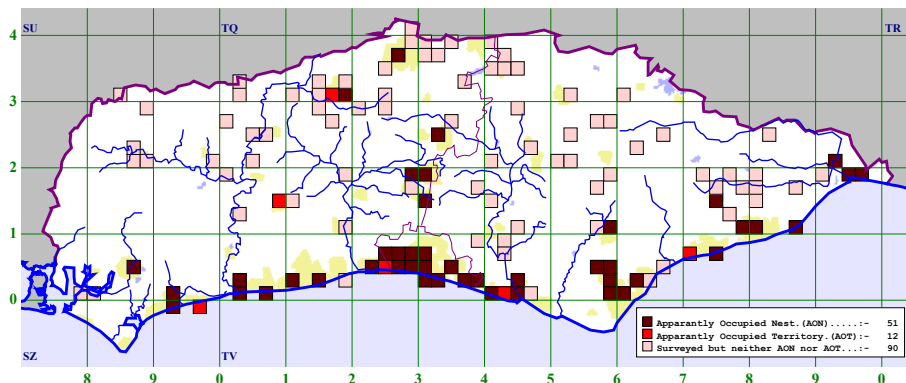


Figure 1. Distribution of urban nesting Herring Gulls in Sussex.

Figure 1 combines the data from the repeat site and 1-km square elements of the census, to illustrate the distribution of Herring Gulls across Sussex. It shows that nesting by Herring Gulls in the coastal towns is pretty much ubiquitous, with only the more rural coastal settlements not recording any nesting or territorial behaviour. This is likely due to the type of houses in these areas not providing suitable habitat, and the fact that food is more readily found in town centres. Nesting is also widely seen in the larger inland towns, including Hailsham, Burgess Hill, Horsham, and as far inland as Crawley. Again, the more sparsely settled rural areas inland are those that do not support nesting gulls.

In contrast, Lesser Black-backed Gulls were only recorded in ten 1-km squares (7%). Nesting was confirmed or territorial behaviour observed in just six (4%) squares: in Camber Sands, Horsham, Newhaven, Eastbourne and St Leonards. These results, and those collected during the repeat site part of the census, show that nesting Lesser Black-backed gulls are currently almost entirely confined to the coastal towns. However, the presence of nesting in Horsham indicates that there is potential for more inland towns to be colonised.

Visibility of nests from the ground, particularly in town centres, is difficult due to the nature of the tall buildings with flat roofs, and so observed territories (which includes those where the nests could be seen) gives a fuller picture of use by gulls than AON. The top five sites for numbers of Herring Gull territories were central Worthing (94 AOT), Eastbourne (81 AOT), Goring-by-Sea (64 AOT), central Brighton (63 AOT), and Langney, Eastbourne (51 AOT).

Given the inherent difficulties of surveying roof nesting gulls, the methodology to derive a population estimate developed for Seabirds Count involves the use of a correction factor to account for the fact that not all birds/nests will be visible from the ground. Correction factors have been produced for the different types of urban habitats by comparing counts from ground-based surveys with counts from digital aerial surveys (described in Burnell 2021a).

Using these correction factors, some preliminary estimates of the natural- and roof-nesting Herring and Lesser Black-backed Gull populations have been produced for England based on Seabirds Count data collected up until 2020 (Burnell, 2021b). Whilst these preliminary estimates are only available for the national population and will change once data collected in 2021 are added, it is clear that, in England, urban populations of both Herring and Lesser Black-backed Gulls are now much larger than their natural-nesting counterparts. Results suggest that approximately three quarters of English Herring Gulls nest on buildings (compared to 14% during Seabird 2000). And whilst results for Lesser Black-backed Gulls are less clear, perhaps two-thirds to four-fifths of the population is now reliant on roofs for nesting (Burnell 2021b).

The final population estimates for the urban gull population, with correction factors applied, are due to be published by JNCC in summer 2023.

Nest location

Throughout the survey it was clear that a wide range of nest sites and building types are utilised by urban nesting gulls. Building types ranged from inner city terraced houses or semi-detached housing in suburban estates where nest sites would be relatively low to the ground (<10m) to high rise apartment blocks, and commercial buildings or warehouses.

Nests in residential areas were usually found on or around chimney stacks, either positioned in between groups of four or two chimney pots or supported in the space where the stack comes out of the slanted roof. The flat roofs of dormer loft extensions were also often utilised. Occasionally nests were found on slanting residential roofs, for example where the presence of a Velux window created a suitable ledge.

Nests found on taller buildings such as in urban centres or industrial estates were generally flat in aspect or making use of shallower slanted roof types compared to those found in residential housing areas. In many of these scenarios, nests were often less visible compared to those of housing estates and presence of breeding birds was often inferred by calling individuals or obvious territorial behaviour noted between pairs. In some areas, for example Hastings and Rye, where the hilly terrain allowed vantage point counts of industrial areas, colonies of gulls with spacing between nests more similar to those found on coastal headlands could be encountered at taller, open and flat rooftop sites.

Gull deterrents

32 out of total of 135 1-km squares had gull deterrents employed (24%). Of the 56 squares where Herring Gulls were present, 26 had gull deterrents (46%).

Various types of gull deterrents were recorded on rooftops of both residential and commercial buildings. Bird spikes, netting and wire cages around chimneys were the most common deterrents,

though model owls and kites were also observed. These had varying levels of effectiveness: on several occasions, nests were observed on top of spikes (the nesting material negating their effects) or next to wire cages.

Other nesting records

Though the survey focused on Herring and Lesser Black-backed Gulls, surveyors also recorded Great Black-backed Gulls *Larus marinus* nesting on roofs in central Brighton (6 AON) and Shoreham by Sea (1 AON).

Acknowledgements

Very many thanks to all the volunteers who took part in the survey. Their names are included in the list of contributors on pages 271-280 of this report. It wasn't always the most interesting in terms of landscape, or the chance of seeing other good birds, but it has been valuable in increasing our knowledge of an under-studied group, so your dedication is appreciated. Thanks also to Ken Smith for his very helpful comments on an earlier draft of this paper, and to John Newnham for producing the map.

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Herring Gull, Eastbourne, June 2021 (Laurence Pitcher)

SOS Marsh Tit Survey 2020/21

Rich Black and Matthew Tywdell

Abstract

A sample survey of breeding Marsh Tits (*Poecile palustris*) in Sussex was undertaken in 2020 and 2021. The aim of the survey was to detect Marsh Tit presence and number of territories in randomly selected survey squares early in the breeding season when Marsh Tits are at their most vocal and obtain a population estimate for Sussex. This is the first Sussex-wide survey targeted at this species. Survey monads were sampled from 1-km squares in the county excluding those regions and habitats where Marsh Tits were known to be absent from the work done for the Bird Atlas 2007-2011. A total of 210 territories were recorded in 77 monads. The season was cut short in 2020 due to the COVID-19 pandemic but the survey was continued in 2021 covering missed and new monads, and re-surveying some. Survey records were supplemented by casual records submitted to the Sussex Ornithological Society to augment distribution data.

The Sussex population was estimated at 7840 pairs (range 5330-10530). This is considerably higher than previous estimates, for example the Bird Atlas 2007-2011 estimated 1800 pairs. The population appears to be stable and may even be increasing slightly and colonising new areas.

Introduction

The Marsh Tit is on the red list in Birds of Conservation Concern 5 (Stanbury *et al.* 2021) as numbers in Britain have fallen by 78% between 1967 and 2018 (BTO *BirdTrends*). In Sussex it has been listed as a fairly common resident, although a species specific survey has never been undertaken. In 2019 it was one of the species proposed by a subgroup of the SOS Scientific Committee as candidates for single species surveys by the Society.

The Marsh Tit is an inconspicuous species that occurs at low densities and is difficult to locate because it has a large territory size, forages in thick vegetation and in the high canopy and is only vocal early in the breeding season. However, the probability of detection is considerably increased by using playback while birds are establishing and holding territories early in the breeding season. At this time they respond readily to conspecific vocalisations and a standardised survey protocol has been devised (Broughton *et al.* 2018).

The aim of this study was to estimate the Sussex population of Marsh Tits and to establish a baseline for future monitoring.

Survey Method

Survey set-up

Marsh Tits are widespread across Sussex, but it was not feasible to survey the whole county. Instead, a sampling methodology based on 1-km squares (monads) was used. There are 4070 monads in Sussex. To help focus the survey effort The Birds of Sussex (Thomas 2014) was used to eliminate squares that were clearly unsuitable for Marsh Tit, principally treeless areas of the downs and urban areas. This reduced the total to 3160 potentially suitable monads. A sample of sixty of these squares was selected at random for survey in the 2020 season.

The survey was planned for 2020 but the COVID-19 pandemic and the resulting lockdown curtailed the survey period with almost a month still to run. Some squares had already been surveyed by then, but in some only the first visit or no visits had been carried out. It was therefore decided to run the survey for a second season in 2021 concentrating on completing the squares that had been selected but not completed in 2020 but also adding an additional random sample. Volunteers were also encouraged to re-survey completed 2020 squares if they wished to, which

would allow a direct comparison between those sites in the two different years and help to account for a potential confounding factor of population change between the two years.

For the 2021 survey the SOS provided the volunteers with a COVID risk assessment and survey letter and, to minimise travel, volunteers were only allocated squares within 15 km of their home.

This meant that a strictly randomised sampling method was impossible for the second year and additional squares were selected either by the survey organiser generating a random square within 15 km of the surveyor's home or, in some cases, by the surveyor selecting their own square.

Field Methodology

We followed the standard methods devised for Marsh and Willow Tit surveys (Broughton *et al.* 2018, <https://community.rspb.org.uk/ourwork/b/science/posts/willow-tit-national-survey-2019-20>). Volunteers were asked to undertake two surveys per square between 15 Feb and 14 Apr, with March being the key month. Surveys were at least a week apart and undertaken on warmer days with no wind and rain.

Surveys were assumed to take place from public rights of way or access land, although in some cases surveyors were able to obtain permission to enter private land. Surveyors were asked to mark areas of suitable habitat that were inaccessible on the survey map. If one of the randomly selected monads proved to have insufficient access it was reassigned by selecting the adjoining square that appeared most similar in terms of woodland cover and type.

Surveyors were asked to devise a route with stops every 200m where there was suitable woodland habitat. The aim was to ensure that, as far as possible, all suitable habitat was within 100m of a survey stop, the distance from which Marsh Tit will typically respond to the low volume playback (Broughton *et al.* 2018). Each stop was marked on the map and the GPS co-ordinates recorded.

Observers were supplied with a 2-minute recording of Marsh Tit calls and song that could be downloaded to their smartphone. At each stop the recording was played for a maximum of two minutes, usually on a smartphone. If the birds responded to the playback, it was stopped immediately. After the playback was completed a further two minutes were then spent listening for a response and looking for birds. The numbers and co-ordinates of responding Marsh Tits were recorded or mapped.

For each visit, surveyors were asked to record the date, visit number and start/finish times on the survey form. For each Marsh Tit contact they entered the details of habitat, the total numbers of Marsh Tits detected and their estimate of the numbers of territories.

We checked the observers' interpretations of the survey registrations and in the analyses used the maximum numbers of territories in each monad. For those monads surveyed in two years we compared the territory counts but used the maxima in our analyses. Analysis of the data was conducted in the statistical programme 'R' (R Development Core Team, 2008).

Survey results

Of the randomly selected monads, 42 were surveyed in 2020, 10 of which were covered again in 2021 and another 11 were surveyed in 2021 only. An additional 24 non-random monads were surveyed in bringing the survey total to 77.

In the 42 monads surveyed in 2020, Marsh Tits were found in 23 (54.8%) with a total of 89 territories, giving an average of 2.1 territories per monad. However, two surveys were incomplete so the actual numbers of territories may have been slightly higher.

In the 45 monads surveyed in 2021, Marsh Tits were found in 36 (80%) with a total of 154 territories located, an average of 3.4 per monad.

Across both years a total of 77 different monads were surveyed with Marsh Tit found in 50 (65%) of them (Figure 1.). A maximum of 210 Marsh Tit territories were located which is an average

of 2.76 per monad. The highest scoring monads in terms of territory numbers were SU9510 (13 territories), SU8113 (11) and SU8017 (10) (Figure 2.).

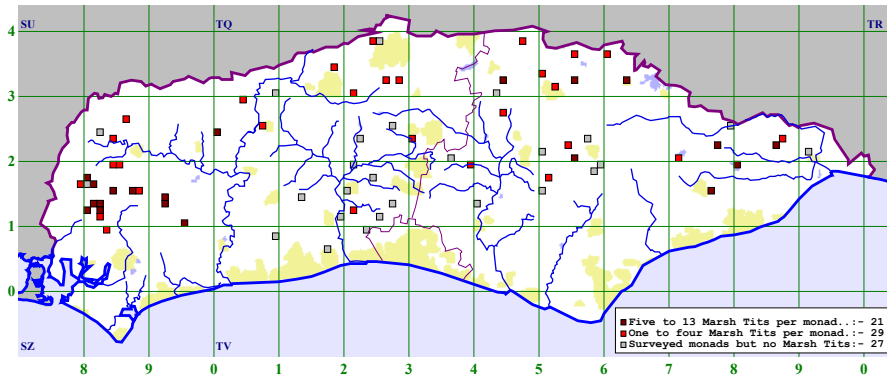


Figure 1. Monads surveyed as part of the 2020 and 2021 Marsh Tit survey showing maximum number of Marsh Tit territories recorded in each.

The data from the two years are obviously very different with Marsh Tit found in a much higher percentage of monads and with a much higher number of territories per monad in 2021. However, comparing the eight monads fully surveyed in both 2020 and 2021 shows no difference between the two years. There were 31 territories found in these monads in 2020 and 30 in 2021 meaning an average number of territories of 3.88 and 3.75 respectively with no statistical difference (paired t-test: $t = 0.17$, $df = 7$, $p\text{-value} = 0.87$). Thus, the overall difference between the two years is, most probably, explained by the fact that all but one of the monads in 2020 were randomly selected from across the whole county, whereas in 2021 monads were selected by proximity to the surveyor. This is particularly apparent in the coverage to the north of Chichester where two observers found high numbers of Marsh Tits in the extensive Beech plantations on the South Downs.

Population estimate

Bearing in mind the non-random monad selection in 2021 we have taken a conservative approach and only used data from the original 63 randomly selected monads to estimate the population. Based on the similar numbers in the same monads in 2020 and 2021 we have used data from both years. Because of the wide and non-normal variation in the numbers in each monad we have used a boot-strap simulation to estimate the confidence intervals on our value of the mean.

Of the original 63 monads 53 were surveyed and Marsh Tits were detected in 33 (63.46%) of them with 128 territories counted, an average of 2.4 territories per monad.

Extrapolating for the entire county and bearing in mind that the assumption was made that large stretches of the downs and the coastal plain were unsuitable for Marsh Tit the data suggest that almost 50% of monads in the county (48.3%) may contain Marsh Tits. From these data the county population estimate is 7840 territories (95% range 5330-10530).

The caveat to this estimate is that not all the randomly selected monads were actually surveyed. However, even if none of the 10 squares that were not surveyed contained Marsh Tits it would only lower the estimate by about 20% and so would not change the conclusion greatly.

The high variance in Marsh Tit numbers and the relatively small number of surveyed monads reduces the certainty of the population estimate as reflected on the confidence interval.

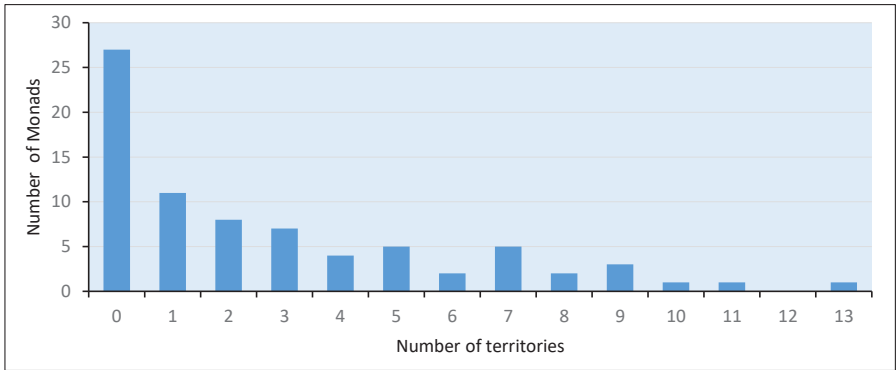


Figure 2. Monads containing different numbers of territories in the whole dataset.

Distribution

The fact that the Marsh Tit is a widespread species in Sussex is supported by the records received by the SOS in 2020 and 2021 (Figure 3). Unsurprisingly this shows the species to be very widespread across the heavily wooded weald. The distribution is comparable to that of the 2007-11 Breeding Atlas. If anything, there is a suggestion that Marsh Tit are creeping back into areas of the South Downs and the coast where they were absent, or undetected, at the time of the Atlas.

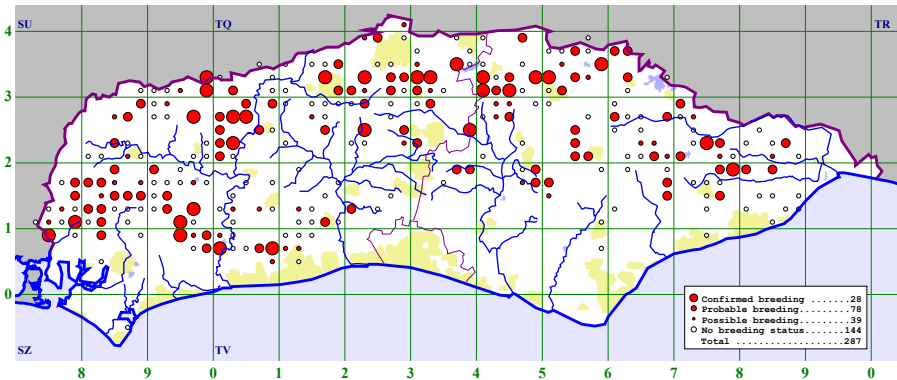


Figure 3. County tetrad distribution of Marsh Tit based on all breeding season records received in 2020 and 2021.

Conclusions

At the time of the 2007-11 Breeding Atlas Marsh Tits were recorded in 34% of the tetrads in Sussex (Thomas 2014), which was only slightly lower than the 38% of tetrads where presence was recorded 20 years earlier in the 1988-91 Breeding Atlas (Gibbons *et al.* 1993). This was thought to represent a genuine decline in the county with the species retreating into the High Weald and western, more wooded, areas of the South Downs, although Marsh Tits were located in 45% of tetrads in winter surveys during the same period. The estimate of the county population provided by the British Trust for Ornithology was 1,800 territories, representing 4.4% of the GB population.

Even the lower end of the estimate for the number of territories in the county (5330) generated by this study is close to three times that estimated in the 2007-11 Breeding Atlas and our mean

estimate (7840) is 4.36 times the atlas estimate. Even the most conservative estimates drawn from this study also suggest a much higher occupancy of tetrads by Marsh Tits. The overall occupancy of monads in the county was in the region of 50% whatever way the data were analysed and since only one monad in four needs to be occupied for a tetrad to contain the species it seems probable that the number of occupied tetrads would be even higher.

It may be that there has been an increase of the Marsh Tit population since the last Atlas. There has certainly been some habitat improvement in the last few years as more woodlands in the county have returned to management of some sort, arguably resulting in a better mosaic of habitats. However, it seems unlikely that there has been sufficient change on a county level to result in population change on the scale suggested by this study.

A more likely explanation is that the species was significantly under-recorded previously. The Atlas used a general survey methodology, not specifically targeted to Marsh Tit, and studies have shown that the playback methodology used here is highly effective in detecting what is, otherwise, a very cryptic and inconspicuous species (Broughton *et al.* 2018). Also like many resident woodland species the Marsh Tit has an early nesting season and most territorial display is over long before the peak period of breeding atlas fieldwork from April through to June.

We suggest that the Marsh Tit population is stable, as suggested by the 2007-11 Breeding Atlas, but at a much higher level than previously supposed. The explanation is probably that this species flourishes in the woodland canopy as well as using low scrub (Broughton *et al.* 2018). The lack of woodland management and subsequent maturation of woodlands has therefore impacted the Marsh Tit less than its congeneric the Willow Tit which relies heavily on mid-level scrub (Lewis *et al.* 2007).

The main concern for the Marsh Tit in the future is probably not the amount of woodland in Sussex but its connectivity. The Marsh Tit is a relatively sedentary species and has difficulty moving across open country (Broughton *et al.* 2013). The importance of Nature Recovery Networks connecting habitats across the landscape will be vital for this and many other species.

It would be useful to repeat the Marsh Tit survey in the relatively near future to confirm this result and refine the population estimate. To increase the robustness of the survey we would recommend, at least, doubling the number of monads surveyed, and ensuring that the selection is properly randomised (future pandemics and lockdowns allowing). It would also be worth considering sampling from the entire set of monads in the county or at least reconsidering which monads to exclude since a few of the excluded monads did have Marsh Tit records during the survey period.

Acknowledgements

Thanks is due to the all the volunteers who surveyed specific sites in 2020 and 2021, as well as to those who submitted Marsh Tit records to the society.

Particular thanks go to Richard Broughton for advice on the survey methodology and for providing the standardised playback for Marsh Tits. We are also grateful to Dr John Newnham for providing the maps used in this report, to Ken Smith for advising on the survey methodology and editing the paper and to Dr Ruth Eastwood for proofreading the draft.

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Marsh Tit, Penhurst Lane, 16 March 2020 (Mark Mallalieu)

Photographers' Gallery



Blue Tit, Pulborough, 22 December (Gary Faulkner)



Grey Heron, Birdham, 11 October (Bob Brewer)



Red-throated Diver, Sovereign Harbour, 2 December (Colin Holter)



Raven, South Downs, 7 January (Dorian Mason)



Wheatear, Selsey, 16 August (Andy Wilkes)



Cetti's Warbler, Waltham Brooks, 24 April (Gary Faulkner)



Whimbrel, Widewater, 21 April (Richard Allan)



Great White Egret, Medmerry, 13 October (Bob Brewer)



Chiffchaff, Seaford, 5 April (Bob Eade)



Reed Warbler, Iford, 5 March (Brian Cox)



Purple Sandpiper, Newhaven, 13 May (Colin Holter)



Serin, Beachy Head, 26 May (Roger Charlwood)



Black Redstart, Brighton Marina, 15 January (Tim Squire)



Goldfinch, Selsey, 3 April (Dorian Mason)



Teal, Pagham Harbour, 21 March (Karen Weston)



Great Northern Diver, Sovereign Harbour, 22 December (Colin Holter)



Turnstones, Newhaven, 15 December (Bob Eade)



Sedge Warbler, Rye Harbour, 25 May (Colin Holter)

Unusual Records

All records of the unusual species listed below are subject to assessment by the SOS Records Committee and it may be assumed that those published in the annual Sussex Bird Report have been fully authenticated.

Taiga Bean Goose	White-winged Black Tern	Pallas's Leaf Warbler
Pink-footed Goose	Pomarine Skua (not spring)	Radde's Warbler
Tundra Bean Goose	Long-tailed Skua	Dusky Warbler
Whooper Swan	Little Auk	Greenish Warbler
American Wigeon	Black Guillemot	Arctic Warbler
Green-winged Teal	Puffin	Blyth's Reed Warbler
Ring-necked Duck	White-billed Diver	Marsh Warbler
Surf Scoter	All petrels (except Fulmar)	Melodious Warbler
Smew	All shearwaters (except Manx)	Icterine Warbler
All pheasants (except Common)	White Stork ¹	Barred Warbler
Alpine Swift	Glossy Ibis	Rose-coloured Starling
Corncrake	Night-heron	Red-spotted Bluethroat ²
Spotted Crake	Purple Heron	Red-flanked Bluetail
Crane	Montagu's Harrier	Red-breasted Flycatcher
Red-necked Grebe	Black Kite	Dipper
Stone-curlew	White-tailed Eagle ¹	Citrine Wagtail
Black-winged Stilt	Rough-legged Buzzard	Richard's Pipit
American Golden Plover	Hoopoe	Olive-backed Pipit
Dotterel	Bee-eater	Water Pipit ³
Temminck's Stint	Red-footed Falcon	Common Rosefinch
White-rumped Sandpiper	Red-backed Shrike	Twite
Buff-breasted Sandpiper	Woodchat Shrike	Common Redpoll
Pectoral Sandpiper	Golden Oriole	Parrot Crossbill
Red-necked Phalarope	Chough	Serin
Grey Phalarope	Hooded Crow	Lapland Bunting
Lesser Yellowlegs	Willow Tit	Ortolan Bunting
Sabine's Gull	Penduline Tit	Cirl Bunting
Ring-billed Gull	Shore Lark	Little Bunting
Glaucous Gull	Short-toed Lark	
Iceland Gull	Red-rumped Swallow	
Roseate Tern	Wood Warbler	

- ¹ Only when there is evidence that the bird is of wild origin and not from a reintroduction project or otherwise escaped or released.
- ² White-spotted Bluethroat *Luscinia svecica cyanecula* is a British Birds Rarities Committee (BBRC) subspecies.
- ³ Except for coastal area from Eastbourne eastwards.

In addition, descriptions are required for some subspecies, including: 'Black Brant' (*B. b. nigricans*), 'Kumlien's Gull' (*L. g. kumlieni*), 'Continental' Coal Tit (nominate *P. a. ater*), 'Siberian' Chiffchaff (*P. c. tristis*), 'Northern' Willow Warbler (*P. t. acredula*) and Yellow Wagtail forms *M. f. thunbergi* and *M. f. flava*. However, descriptions are not required for the following subspecies: 'Pale-bellied' Brent Goose (*B. b. hrota*), nominate Herring Gull (*L. a. argentatus*), *intermedius* Lesser Black-backed Gull, 'Greenland' Wheatear (*O. o. leucorhoa*) and nominate White Wagtail (*M. a. alba*).

Descriptions may also be required for any species seen in unusual circumstances or on an unusual date. Records of unusual species should be submitted on the forms available from the SOS website or from the Recorder. Completed forms should be sent to the Recorder, preferably by e-mail although postal submissions are also acceptable.

Reports of national rarities as defined by the BBRC should be submitted to the Recorder either in the same format as above or on BBRC forms available from the Recorder or via the BBRC website <https://www.bbrc.org.uk/submit-a-sighting>.



Common Redpoll, by Stephen Message

Contributors and acknowledgements

We are grateful to the following observers for records for the 2021 Sussex Bird Report. For an explanation of the superscripts, see the key below the table.

B Acheson	R Antonini	P Ballantine ^T	L Beun ^{DG}
B Adam ^T	H Antram ^U	M Bambrick ^{MUX}	M Bevan ^T
J Adams ^U	V Appleyard ^X	D Bangs	V Bevan ^U
R Adams ^X	K Archer ^T	MI Banks ^X	N Bew ^T
R Addison ^U	X Armani ^U	R Bannister ^T	R Bewley
J Adler ^T	AC Armitage ^{DTX}	DG Barber ^{BHX}	R Bicker ^{TX}
N Afroz ^U	J Arnott ^G	CJR Barfield ^{BCHGMTW}	R Bickers ^X
L Agace ^U	C Ash ^{CM}	A Barker ^U	T Bickerton ^T
A Ainge ^X	RF Ash ^M	D Barker ^T	G Bignell ^U
P Aitken ^U	A Ashdown ^M	D Barker ^U	W Bilham ^X
B Akinola ^T	J Ashdown ^T	M Barkre ^T	JH Bingley ^T
S Akkaraju ^U	M Ashdown ^G	IT Barnard	C Bird ^T
M Alabaster ^U	D Asher ^{BCT}	P Barnes ^U	Birdguides-Rba ^T
C Albanese ^U	N Ashford ^T	D Barnett ^U	Birdlife ^U
J Alderson ^U	H Ata ^U	S Barrass ^W	J Birdsey ^{CT}
J Aldridge ^T	T Atkins ^C	B Barrett ^T	JM Birdsey ^{BG}
J Alexander ^T	B Atkinson	J Barrett ^W	J Birkett ^T
H Al-Farhan ^U	J Atkinson	K Barrington ^U	K Bish ^X
J Alford	L Atkinson	B Barry ^X	A Bishop ^U
M Alfred-Ranson ^X	J Atkinson-Baldwyn ^U	J Bartley ^U	G Bishop ^T
P Alfrey ^U	L Atter	RJ Bassett ^{BCTW}	DJ Bissett ^T
R Allan ^T	A Atterbury ^G	SD Batchelor ^T	RA Black ^M
DJ Allcock ^{UW}	J Attiwell ^T	GS Batho ^T	R Blackman ^T
R Allcorn ^{BCU}	M Austad ^U	G Baulcomb ^X	N Blackwood ^U
AE Allen ^T	T Austin ^U	H Beal ^X	S Blair ^X
C Allen ^X	N Aye ^U	S Beal ^{CT}	S Blair ^U
E Allen ^X	M Ayling ^{BCGTW}	? Beckingham ^X	P Blake ^T
K Allen ^U	J Aylward ^T	DJ Beer ^{BCTW}	T Blake ^T
R Allen	S Aylward ^T	M Beer ^U	C Blakey ^T
S Allen ^U	B Babenski ^U	F Bell ^X	C Blencowe ^X
T Allen ^{BCDTW}	C Badenhorst ^T	B Benatt ^T	M Blencowe ^X
L Allen-Williams ^X	S Badger ^T	E Benbow ^T	D Bloch
S Alley ^U	G Badjie ^X	AJ Benham ^{BCMT}	S Bloomer ^U
M Allison ^X	N Baelz ^X	AC Bennett ^X	D Boddington ^{BCDGTW}
R Allison	H Baggaley ^W	T Bent ^U	L Bolt ^X
A Allum	GR Bagnell	M Bentall ^T	A Bolton ^T
AE Almeida ^{BCGTW}	S Baines ^U	C Bentley ^{HX}	N Bond ^{TU}
LEF Ambler ^W	A Baker	DP Bentley ^{TX}	S Bond ^X
P Ambler ^{TX}	C Baker ^U	N Bentley ^X	D Bone
AH Anderson ^T	L Baker ^{TU}	VP Bentley ^{BCHMTW}	PF Bonham ^X
M Andersson ^U	R Baker ^T	AJ Benton ^T	R Bonnici ^{TX}
R Anderton ^U	T Baker ^W	L Bernamont ^X	D Booker ^U
L Andrews ^U	CF Bal ^{BCTW}	M Berry ^X	M Booker ^U
R Ansell-White ^X	H Ball ^X	NW Beswick ^T	S Booker ^U

D Boon ^U	PM Brown ^T	J Campbell ^T	C Clarke ^T
A Bose ^U	S Brown ^D	S Campbell ^U	C Clarke ^X
N Botterill ^T	S Brown ^U	J Cannon ^X	J Clarke ^U
P Boulton ^T	T Brown ^T	S Card ^{TU}	BR Clay ^{BCDMT}
M Bourgois ^U	S Broxton ^X	V Cardoso ^U	L Clay ^X
M Bournat ^T	J Bryant ^U	IA Carrington ^T	PJ Clay
O Bournat ^T	HE Bryett ^T	HM Carter ^T	A Clayden ^X
L Bowen-Perkins ^X	F Buckel ^T	L Carter ^{TX}	M Clayton-Harding ^{TW}
B Bowerman ^T	D Buckingham ^{CT}	M Carter ^X	B Cleghorn ^U
S Bowers ^U	A Buckle ^{CDE}	P Carter ^T	FA Clements ^{TU}
AP Bowley	C Buckle ^{BCDMT}	PD Carter ^T	J Clements ^T
PS Bowley ^T	W Buckthorpe	SJ Carter ^U	A Clifford ^{TU}
HR Bown ^{BCT}	A Budd ^U	MC Casemore	B Clough
K Bowra ^X	P Budd ^X	R Castle ^U	J Clow ^X
P Boyle ^U	S Budge ^X	Castle Hill Ecology ^X	B Clyne ^U
T Boyle ^X	R Bugler	S Catlett ^X	M Coath ^T
J Bradbury ^U	L Bull ^T	A Caulkett	J Cobb ^T
M Bradbury ^U	A Burdon	M Causer ^W	C Cobbold ^X
D Bradshaw ^U	D Burford ^X	KG Cawte ^{BCMTW}	S Cocker ^W
J Branscombe ^T	C Burgess ^X	EJ Chandler ^{MTW}	TD Codlin ^U
D Brassington ^U	H Burgess ^X	P Chandler ^X	C Cogley ^{TUX}
M Bravery ^U	J Burgess ^{DTX}	C Chapleo ^U	A Coldicott ^X
A Brennan ^{HWX}	SJ Burgess ^T	A Chapman ^U	J Cole ^X
C Brewer ^X	N Burgum ^T	B Chapman ^U	PR Cole ^{TW}
W Brewer ^X	V Burley ^X	CB Chapman ^{CTX}	S Colenutt ^U
D Bridges ^T	ANM Burns ^{BCHT}	SE Chapman ^T	N Colgate ^{BCT}
B Briggs ^U	J Burrage ^X	E Charlson ^T	D Colledge ^T
N Brink ^U	C Burrell ^X	ME Charlwood	L Collett ^X
J Brinkley ^X	M Burstow ^X	RH Charlwood	H Collings ^U
P Bristow ^T	C Burt ^X	P Chase ^T	CB Collins
K Britten ^U	D Burt ^U	SM Chastell ^T	J Collins ^U
M Brodzinski ^T	H Burton ^W	MJ Chattaway ^{BCMT}	M Collins ^B
L Bromley ^X	I Burton ^T	L Cheesman	MA Collins
A Brookes ^T	O Burton ^U	P Cherry	N Collins ^X
C Brookes	M Busby ^T	J Chetcuti ^X	P Collins ^T
M Brookes ^X	P Busby ^X	R Childs ^U	REC Collins ^T
C Brooks ^{BGT}	G Butler ^U	A Chilton ^X	B Collins-Smith ^U
D Brooks ^X	RA Butler ^{BCTW}	S Christopher ^{CT}	SJ Collyer ^T
R Brooks	R Butlin ^U	Churches Count Nature ^X	R Comerford ^T
T Brooks ^U	J Buttress ^U	N Churchill ^X	G Conolly ^B
J Brooksbank ^G	S Buttress ^U	P Churton ^U	S Conway ^T
D Brothwell ^T	C Byrne ^U	S Civilla ^X	AS Cook ^X
A Brown	S Calderon ^U	E Clack ^T	H Cook ^{TU}
C Brown	M Caldicott ^X	K Claiden-Yardley ^T	J Cook ^D
DR Brown ^{CT}	A Cameron ^T	S Clancy ^U	M Cookson ^T
J Brown ^{BCT}	J Camp ^T	D Clark ^U	F Coomber ^X
J Brown ^{TU}	DK Campbell ^{BCTU}	R Clark ^T	A Coombs ^X
L Brown ^U	I Campbell ^X	SJ Clark ^U	A Cooper ^T

C Cooper ^T	N D'Agorne ^U	SC Devereau ^T	D Ellis ^X
S Cooper ^X	S D'Agorne ^X	O Dewhurst ^U	J Ellis
S Cooper ^T	D Dack ^{TU}	R Dewhurst ^U	M Emerson ^{BCD}
H Corcoran ^T	R Dadds ^X	H Dignum ^X	? Emmens ^T
L Cornish	P Dale ^{TU}	G Dipple ^T	T Ensom ^U
C Corrigan ^{BMT}	S Dale	T Diserens ^T	M Ensor ^W
L Coshie-Ville	RC Dalrymple ^T	R Dobbins ^T	D Errey ^T
? Cotten ^T	C Daly	P Dodsworth ^D	D Errichetti ^U
M Cottingham ^T	N Daly	? Dorman ^T	F Etheridge
Z Courchene ^{BC}	P Damerell ^U	L Dorward ^U	CJ Evans ^T
JM Court ^{UW}	B Dane ^W	E Dowding ^H	D Evans ^U
D Cousins ^U	M Daniel ^T	GR Down ^X	GM Evans ^T
R Cousins ^U	MC Daniel ^W	V Downer ^X	J Evans ^T
R Cousins ^T	RW Daniels ^T	RJ Downes	LGR Evans ^{TU}
JR Cowser ^{CHW}	N Dargue ^U	L Downey ^X	M Evans ^B
BR Cox ^U	W Dark ^X	FT Downing ^T	P Evans ^U
D Cox	C Davey ^X	B Drummond ^X	P Evans ^X
D Cox ^T	D Davidson ^T	T Duffield	R Evans ^U
JM Cox ^T	N Davidson ^U	J Duggan ^X	T Evans ^U
S Cox ^T	C Davies ^T	N Duggan ^T	M Eveleigh ^{CT}
HM Crabtree ^{BCDHGMT}	L Davies ^T	KP Duncan ^T	JJ Everitt ^{HUW}
P Crabtree ^U	M Davies ^{TX}	DP Dunk ^T	I Exton ^T
R Craddock ^T	S Davies ^T	JAG Dunlop	B Fagan ^U
SJ Craft ^T	N Davies-Patrick ^X	J Dunn	A Faiers ^U
D Crane ^X	C Davis ^{BCDTW}	R Dunne ^T	RJ Fairbank ^{DT}
O Crawshaw ^X	EP Davis	A Dyer ^X	V Fairchild ^U
JM Criado Gerber ^U	M Davis ^W	K Dziubinska ^{DETX}	MW Fairley ^T
NC Crighton ^T	P Davis ^W	MR Eade ^{ET}	M Farmer
G Crisp ^X	P Davy ^{BMTUX}	R Eadie ^X	R Farran ^{CMT}
L Crispin ^X	K Dawson ^{TX}	M Eagles ^B	AR Farrar ^T
LSM Crook ^T	MD Dawson ^U	C Eames	C Farrell ^T
JK Cross ^H	J Day ^T	M Eames	G Farwell ^D
P Cross ^U	F-J De Vries ^T	L Easom ^T	G Faulkner
E Crosskey ^X	C Deacon ^T	R Eastwood ^X	LF Favret ^T
Horsham DC Recorder	A Dean ^X	J Eaton-Brown ^M	JA Feest
MJ Cuff ^{TUX}	A Dean ^U	K Eaves ^T	K Fekete ^X
S Cullum ^T	B Dean ^T	G Eckhart ^U	R Felstead ^T
T Cummins ^T	CH Dean ^{BHTW}	A Edden ^U	M Feltham ^X
S Cunliffe ^X	M Dean ^X	J Ede ^U	G Fenn ^T
M Cunningham ^U	J Dedman ^T	RDM Edgar	P Fenwick ^H
I Cunningham-Eurich ^U	C Dee	T Edom ^X	L Fernando ^U
H Cuppleditch	J Dee ^U	J Edwards ^T	C Ferris ^G
R Cureton ^X	G Denison-Pender ^T	P Eerdmans ^U	G Fewster ^X
J Curnick ^U	R Denison-Pender	T Eichner ^X	JE Fields ^B
J Curson ^U	A Dennig ^X	T Eldridge ^T	P Finch ^U
LD Curson ^U	D Dennis ^X	J Ellel	Find Wildlife From Home ^X
J Cutting ^T	L Dennison-Wilkins ^T	D Elliott ^X	C Firman ^U
MAJ Cutts ^U	P Denyer ^{CHTUW}	S Elliott ^{TU}	A Fisher

I Flack ^U	LA Gaskin ^T	L Gosset ^X	TD Hallahan ^T
K Fleming ^T	J Gatenby ^T	R Gould ^{TX}	H Halstead ^T
R Flesher ^T	J Gates ^T	D Gower	A Hamblin ^T
G Flinn ^T	SJ Gates ^T	JS Gowers ^{TU}	M Hamer ^X
D Flint ^{TU}	R Gatley ^X	R Gowing ^X	CH Hamilton ^T
W Flint ^U	L Gearing-Bell	AS Grace ^X	N Hammatt ^U
O Flory ^U	G Geer ^T	R Graham ^T	C Hance ^G
P Floyd ^T	C George ^T	T Graham ^T	K Hand ^T
R Floyd ^U	CM George ^{BCTW}	A Gray ^{TUW}	D Handley ^U
BF Forbes ^T	R George ^C	N Gray ^X	JC Hannam ^T
T Forbes ^{CT}	A Giacomelli ^G	N Gray	A Hansen ^T
AE Ford ^T	S Giacomelli	Great Outdoorsies BC ^U	T Hanson ^{BCT}
C Ford ^X	G Gibbon ^X	P Greaves ^T	W Harcourt-Smith ^U
S Fordred ^T	K Gibbons ^X	R Greaves ^X	AJ Hardie ^T
R Foreman ^X	AP Gibbs ^X	MA Grech ^T	A Harding ^U
C Forster ^G	C Gibbs ^X	D Green ^B	B Harding ^U
TJ Forster ^T	C Gibson ^U	M Green ^T	K Harding ^T
TM Forward ^{TX}	T Gibson ^U	M Green ^C	L Harding ^T
S Fosberry	TE Gibson-Poole ^T	P Green ^{BTW}	R Hardwick ^T
T Fowler ^X	D Gilbert ^U	NM Greenaway ^{DWX}	M Hare ^T
TP Fox ^{BCDHGT}	SA Gilbert ^B	RR Greenhalf ^W	J Hargreave ^U
A Francis ^{CDT}	J Giles ^X	D Greenwood ^X	F Hargreaves ^{TW}
A Franco ^U	KB Gillam ^T	C Gregory ^T	K Harlan ^X
P Free ^T	L Glanz ^X	T Gregory ^U	F Harmer ^T
MG Freeman ^W	J Glen ^T	AJ Griffiths ^X	B Harris ^U
CD French ^{BCT}	AS Glossop ^U	C Griffiths	CA Harris ^T
L Friel ^X	J Glossop ^U	D Grijseels ^U	D Harris ^X
D Frost ^U	CJ Glover ^B	A Grimsey ^T	NG Harris ^T
S Frost ^T	J Glover ^{BDT}	R Grimshaw ^U	R Harris ^T
C Fry ^{GW}	L Goadsby ^T	J Grover	RG Harris ^T
C Fry ^X	T Goble ^X	E Groves ^X	S Harris ^U
RC Fullbrook ^{CT}	A Goddard ^T	G Guilhem ^U	C Harrison ^U
D Fuller ^U	B Goddard ^U	J Guiver ^T	C Harrison ^T
TP Fuller ^T	C Goddard ^D	C Gull ^U	P Harrison ^U
WW Fuller ^{BT}	V Goddard ^X	C Gunn ^X	S Harrison
K Furlapa	J Godden ^U	S Gupta ^U	T Harris-Ross ^{BCT}
A Galloway ^X	I Godfrey ^X	M Gurney ^X	R Harrop ^T
KM Galtry	MC Goff ^X	C Gutjahr ^B	T Harrop ^U
MA Galtry ^T	N Goldsmith ^T	AC Gutteridge ^{BCDT}	C Hartwell ^T
C Garabet ^T	A Gonzalez ^U	N Hacking ^U	K Harvey ^X
D Gardiner ^T	D Goodge ^{BC}	P Hadley ^U	P Harvey ^U
S Gardiner	LJ Gooding ^{TU}	R Hague ^X	R Hastings ^{TU}
N Gardner ^U	P Goodman ^T	D Haldane ^X	C Hawes ^T
R Gardner ^U	J Goodridge	S Halder ^T	F Hayes ^X
S Garland ^X	K Goodwin ^T	V Hale ^X	M Haynes
M Garrido ^U	SM Gordon ^T	D Hall ^{TX}	E Hayward ^T
L Garrido Allende ^U	T Gordon ^T	R Hall ^X	M Hayward ^X
C Garton ^T	W Gordon ^W	T Hall ^T	M Hazleton ^T

C Head ^T	W Horn	N Jakab ^U	I Kelly ^U
J Headley ^T	JHM Home ^{BCMTW}	BD James ^U	L Kelly ^U
S Healey ^U	A House	D James	S Kelly ^X
R Heasman	FW Howard	GRF James ^{TU}	T Kendall-Sykes ^X
E Hein ^U	H Howard ^X	JR James ^T	AD Kennelly ^T
R Helmore ^X	M Howard ^X	P James ^{TU}	T Kennelly ^U
P Henderson ^M	T Howard-Jones ^{TX}	CR Janman ^T	H Kent ^U
N Henry	J Howell ^U	J Janman ^X	A Kenworthy ^X
K Henthorne ^G	DH Howey ^{GT}	M Jeavons ^X	M Kerry ^X
M Hibbard ^X	G Howie ^U	M Jeffree ^T	MM Kettell ^T
J Hicks ^X	S Howie ^U	A Jeffrey ^U	B Keylock ^T
M Hicks ^U	R Howorth ^X	EJ Jenkins ^U	J Keynes ^X
M Higham ^T	P Huggins ^{BCDTX}	L Jenkins ^U	J Kilby ^X
C Hill ^T	G Hughes ^{CETW}	C Jennings ^T	L Kilic ^U
S Hill	G Hughes ^{BU}	S Jennings ^T	AJ Killick ^{TW}
T Hilsden ^T	N Hughes ^U	B Jobson ^U	J Kinchington ^{BC}
S Hines ^T	P Hughes	DJ Jode ^{TWX}	D King ^T
E Hinton ^{GX}	PH Hughes ^{HT}	A Johnson	DR King
RS Hoad ^{BCDT}	P Huibers ^U	RJ Johnson ^{HW}	E King ^U
D Hoare ^T	S Humphrey ^T	S Johnson	H King ^X
M Hobbs ^U	P Hunnisett ^X	S Johnson ^X	J King ^T
S Hobbs ^X	N Hunt ^T	T Johnson ^U	JE King ^{BCD}
JA Hobson	E Hunter ^U	M Johnston ^T	MN King ^{BCDT}
P Hockin ^X	L Hunter	A Jones ^X	P King ^X
S Hodgkinson ^T	P Hunter ^U	B Jones ^T	R King ^X
D Hodgkiss ^X	C Hurworth ^T	C Jones ^{TU}	A Kingdom ^U
I Hodgson ^T	EA Hutchby ^{BCD}	D Jones ^T	DC Kingham ^W
P Hogan ^X	J Hutchings ^U	G Jones ^T	A Kirby ^U
BJ Holcombe	NP Hutchinson ^{BDTW}	I Jones ^U	W Kirby
AM Holden	AM Hutson ^{CX}	J Jones ^T	C Kirk ^T
M Holden ^U	A Huttly ^T	K Jones ^B	M Kirk ^T
AP Holding ^T	K Hyde ^U	M Jones ^U	J Kirkman ^T
J Holland ^X	DJ Hyland ^T	MF Jones ^T	AR Kitson
PK Holland ^T	M Iden ^G	MGM Jones ^T	M Klein ^T
R Hollis ^T	JB Ingham ^T	N Jones ^U	DC Knight ^T
C Holloway ^X	A Ingman ^T	PE Jones ^{BCTW}	L Knight ^{BCT}
LG Holloway ^X	B Inman ^X	R Jones ^T	RM Knight ^T
G Holmes ^T	R Innes ^U	RJ Jones ^T	RM Knightall ^T
J Holmes ^T	H Insley ^T	SEI Jones ^U	A Knox ^U
CA Holt	P Insua ^U	T Jones ^{DT}	SJ Kuhn
CA Holter ^{CDT}	R Iredale ^T	R Joy ^U	R Kurtz ^U
J Holter ^{TW}	BGR Ives ^T	S Joynes ^X	T Lahood ^X
J Holter	RA Ives	W Justice ^T	A Laing ^U
T Holter ^{TW}	K Jackson ^{BC}	ME Kalaher	DA Lake ^T
G Honey ^T	L Jackson ^X	J Kaliniecki ^T	C Lamb ^U
P Honeysett ^U	RA Jackson ^T	G Keep ^D	L Lambert ^{CT}
CE Hope	SJ Jackson ^T	J Kellett ^T	S Lambert
P Hopkin ^{TU}	S Jacobs ^T	DJ Kelly	S Lanaway ^W

C Lane	E Longstaff ^T	K Mandal ^T	K McIntosh ^T
L Lane	M Love ^B	L Mandry ^X	E McKechnie ^U
IM Lang ^{HTW}	A Lovett ^T	AC Manley	J McKechnie ^U
GB Langley ^U	D Lovett ^U	L Mann ^T	W McLennan ^U
T Langley ^X	R Lowe ^U	L Mann ^X	F Mcluckie ^T
N Langridge ^X	WJ Lowe ^T	R Manso de Zuniga ^X	M Mcmanus ^{ETW}
C Large ^U	AR Loweth ^T	MV Mansson ^X	DF McNair ^{BCDTW}
D Larkin ^X	J Lowther ^U	M Mantin ^U	J McNamee ^{BCTX}
J Lauper ^X	G Lucas ^X	L Manvell ^{BT}	N McNeil-Watson ^U
V LaVia ^U	H Luck ^X	A Marek ^U	S McQuin ^U
B Lawrence ^T	J Luck ^X	L Margetts ^U	F McStea ^X
S Lawrence ^T	B Lucking ^U	R Mariner ^X	A Mears ^T
D Lawson ^X	PJ Luffingham ^H	A Marsh ^T	JI Medford ^T
J Lawson ^T	S Lumsden ^T	R Marshall ^T	J Meeke-Gurney ^X
N Layt ^X	A Lune ^U	AJ Martin	B Melaniphy ^U
M Leach ^U	C Lunny ^M	E Martin ^U	D Melville ^T
BD Lee ^T	P Lunsford ^U	J Martin	A Merryweather ^T
D Lee ^X	M Luscombe ^X	JNR Martin ^{BC}	SJ Message
HJA Lee ^{BC}	T Lust ^U	JP Martin ^T	G Messenbird
M Lee ^U	J Lynch ^X	P Martin ^T	R Micallef ^T
S Leese ^U	P Lynch ^X	R Martin ^U	GA Michelmores ^{BCT}
CL Leeves ^T	P Lynch	C Maskell ^T	B Middleton ^X
MP LeGrys	V Lynn ^X	JM Maskell ^T	J Middleton ^X
J Lemm ^U	J Lyons-White ^U	A Mason ^U	K Midgley ^T
H Leonard ^U	J Maccallum-Stewart ^W	D Mason	A Millar ^T
S Leonard ^U	A Macdonald-Brown ^T	D Massie ^U	J Millard ^X
K Lerwill ^X	C MacGillivray ^U	PH Massini	W Millard ^T
J Lethbridge ^U	J Macgillivray ^U	PD Matson ^{ET}	F Miller ^U
DC Leversedge ^{BC}	A Macintyre	A Matthews ^T	H Miller ^T
Lewes Swift Group ^T	A Mackenzie ^U	D Matthews ^T	J Miller ^T
L Lewis ^T	C MacKenzie ^U	K Matthews	A Mills ^{TX}
S Leyland ^T	J Mackie ^M	P Matthews	L Milward ^T
C Lickfold ^U	K Mackintosh ^U	S Matthews ^U	NB Mitchell ^T
P Lifton ^B	DS Macklin	T Matthews ^U	O Mitchell ^{TW}
T Lifton ^{BCT}	K MacNicol ^X	A Maundrell ^T	S Mitchell ^U
MW Light ^{BC}	S Macpherson ^X	C Mayhew ^X	B Moberley ^G
TJ Lincoln	J Madden ^X	L Mayhew ^X	CJC Moffat ^W
A Lindley ^X	A Maddocks	H Maynard ^X	N Moll
J Lindop ^{BC}	S Maddocks	S Mcavoy ^T	PJ Molloy ^T
C Lindsay ^T	DJ Madgin ^T	M McBride ^X	JR Monkhouse ^U
J Lindsey ^X	R Maher ^X	A McCall ^T	C Moon ^U
SH Linington ^W	A Major ^X	D McCarthy ^W	P Mooney ^T
M Linklater	J Makinen ^X	S McCormack	R Mooney ^U
C Liu ^U	SE Malcolm ^U	SFH McCullagh ^T	M Moorcroft ^T
D Livingstone	J Malebran ^U	JI McCulloch ^U	A Moore ^T
A Lockett ^T	M Mallalieu ^{MT}	I McDonald ^U	A Moore ^M
N Long ^U	D Mallard ^X	L McElderry ^X	CH Moore ^{HTW}
N Long ^{TU}	L Mancuso ^T	D McGuire ^U	J Moore ^{HTW}

M Moore ^T	K Noble ^{TU}	RC Owen ^{CT}	L Perry ^T
J Moorhouse ^T	SD Noble ^T	E Ozturk ^T	D Peters ^X
W Morgan ^U	S Nockold ^U	R Packham	D Peters ^U
M Morley	C Noel ^X	L Padelopoulos ^U	L Peters ^U
L Morris ^X	D Nollth ^U	L Padfield ^U	A Petersons ^T
R Morris ^W	A Norburn ^T	D Page ^U	J Pettit ^X
S Morris ^G	A Norbury ^X	R Page ^{BCT}	CB Peverett ^{TW}
P Morrison-Price ^X	G Norman ^U	JC Palmer ^T	C Phelps ^T
C Mortimer ^{BCGT}	G Norris ^X	M Palmer ^T	MS Phelps ^{BUW}
P Mottershead ^T	G North ^T	A Palmerton ^X	MJ Phillips ^W
PL Mulcahy ^T	C Northwood	D Panchaud ^U	R Phillips ^T
MF Mullen ^{BCW}	J Nott ^{BCT}	CC Pang ^U	E Philpot ^X
CA Mullender ^T	R Nowak ^T	S Pang ^U	M Pidgeon ^T
J Mulleneux ^X	G O Donovan ^X	PJ Papps ^T	M Pike ^B
CA Mulley ^T	J O Dowd ^U	R Parangi ^T	M Pinhorn ^T
MJ Mullis ^U	F Oakley ^X	A Parfitt ^{TX}	L Pitcher
J Munday ^X	J Oakley ^{BT}	DP Parish ^{CT}	M Pitt ^U
C Munn ^X	J Obey ^U	N Park ^{BCT}	I Pitts
T Munnery ^T	K O'Connor ^X	A Parker ^M	J Pitts ^X
C Murphy ^U	P Ogden ^X	G Parkes ^U	J Pitty ^T
D Murphy ^U	R Okines ^T	P Parkin ^T	PJ Plant
K Murphy ^{BCT}	M Oldfield ^X	JH Parkinson ^T	R Platt ^T
M Murphy ^U	D Oldham ^X	TW Parmenter	A Playle ^T
N Murphy ^X	C Oliver ^U	S Parnell ^U	H Poland ^C
R Muselle	C Oliver	J Parsons ^{WX}	MJ Pollard ^T
AJ Musgrove ^{TU}	N Oliver	R Parsons ^W	S Pont ^{TU}
S Musievski ^U	PJ Oliver ^T	F Partridge ^X	CR Poole ^T
E Mustafa ^{BCT}	C Olson ^U	H Passmore	O Poole ^T
D Mutters ^T	N O'Neill ^T	N Patel ^G	NJN Pope
M Nair ^U	M Onley ^U	S Patmore ^U	I Porter ^U
D Napier ^U	P Oprandi ^{BCT}	? Patterson ^T	S Potter ^T
R Nash ^T	MA Orchard-Webb ^{MT}	SJ Patton ^X	K Potter-Jones ^X
National Trust Recorder ^X	M Orford ^U	ER Paxton ^U	N Povey
R Neal ^X	J Orlowski ^U	D Payne ^T	A Powell ^X
S Neal ^T	P Ormerod ^B	J Pearl ^G	J Power
J Nelder ^U	R Orridge ^T	A Pedliham ^T	R Pratt ^X
C Nelson ^U	J Osbahr-Scott ^T	C Pedroza ^T	P Precey ^U
AM Nevard ^G	P Osborn ^T	EA Pel ^T	J Preece ^T
M Newcombe ^T	BP Osborne ^{BCT}	J Penfold	HDV Prendergast ^{BCMT}
L Newland ^T	G Osborne ^C	P Pentek ^T	L Prentice ^G
DA Newman ^{TU}	M Osgood ^U	RF Penticost ^{BC}	G Prescott ^{TU}
JA Newnham ^{BCHGTUW}	F Osterberg ^U	H Pepe ^U	K Prescott ^{CT}
J Newton	JJ Otway ^X	J Pepper ^T	A Price
M Newton ^X	T Outham ^X	S Pepper ^X	R Price ^W
SJ Newton ^{BCT}	D Owen ^U	A Perry ^{CE}	M Priest
C Nicholson ^W	JC Owen ^{BC}	A Perry ^T	MG Prince ^{TU}
S Nielsen ^U	L Owen ^B	G Perry ^W	S Prior ^T
J Nilsson ^U	MP Owen ^C	H Perry ^U	T Pritchard ^T

S Pryor ^X	R Rios ^U	ND Rutherford ^{BCW}	H Shelley
Pulborough Visitor	W Ritchie ^X	P Ryan ^T	R Shelley ^U
RN Pulley ^T	C Roach ^T	S Ryan ^B	D Sheppard ^U
S Pullinger ^T	M Robards	S Ryan ^M	P Shergold ^U
B Puttock ^{TW}	GCM Roberts ^T	A Ryde ^U	I Sherriffs ^T
K Puttock ^U	L Roberts ^{TX}	J Ryde ^U	B Shersby ^X
M Puxley ^T	M Roberts ^T	L Ryde ^U	EM Shilland ^T
S Pyrah ^X	R Roberts ^X	K Rylands ^T	K Shirky ^U
A Quinn	A Robertson ^U	K Sabin ^X	B Short ^T
AR Quinton ^{DTW}	J Robertson ^T	D Sadler ^X	M Shotter ^X
R Rackliffe ^U	M Robertson ^D	T Sadler ^{TU}	G Shottle ^T
I Radi ^{GT}	A Robinson ^T	D Salgud ^T	D Shute ^X
B Rainbow ^X	C Robinson ^T	A Salter ^X	J Shutt ^U
A Ramesh ^U	D Robinson ^T	E Sames	H Sida ^X
H Ramm ^U	A Robjohns ^T	A Samuel ^T	MJ Silk ^U
J Ramsey ^{BC}	I Robson ^T	A Sanabria ^U	Y Simmonds ^T
M Ramsey ^{BC}	S Robson ^U	A Sands-Bennison ^X	OJ Simms ^U
S Rance ^U	C Roche ^{BCMTW}	J Sardell ^U	K Simon ^X
M Rann ^T	A Rodgers ^{UW}	M Saul ^U	N Simon ^U
NM Ratcliffe ^T	A Rodway ^H	M Saunders ^{BT}	T Simon ^{TX}
ND Rawlings ^T	S Rodway ^H	M Savory ^X	B Simpson ^T
J Read ^X	A Roe ^X	BW Scammell ^T	D Simpson ^T
A Reaney ^T	DP Rogers ^{HTW}	A Scarlett ^T	P Simpson ^U
C Reay ^{CGT}	T Rogers ^U	L Schafer ^U	RN Simpson ^{BT}
P Reay ^X	P Rogowski ^U	P Schechter ^U	SP Simpson ^{BCW}
JW Redhead ^T	L Romaine ^U	C Schlaikjer ^U	T Simpson ^X
A Redman	CGK Roome ^T	B Scott ^X	P Sims ^X
A Redman ^T	G Rooney ^U	D Scott	D Singer ^U
J Redmond	S Rooth ^X	R Scott ^U	G Siskos ^T
B Reed ^U	PP Roper ^X	M Scott-ham ^{HT}	C Skeet ^T
J Reeve ^X	C Rose ^W	AM Seabrook ^T	PA Sketch ^T
L Reeve ^X	J Rose ^U	I Searle ^U	N Skilbeck
E Reeves ^U	P Rose ^U	CM Seaton ^{BCTU}	AJ Skinner ^{BW}
H Reeves ^U	J Ross ^{CT}	S See ^T	C Skinner ^T
JP Reeves ^{TUX}	PW Rouse ^T	C Sell ^T	A Skotnicki ^X
R Regan ^X	I Rowbotham ^T	J Seller ^T	H Smart ^X
A Reid ^T	I Rowe ^U	Z Semperger ^U	P Smart ^X
L Reumont ^U	M Rowell ^T	RJ Senior ^W	C Smith
R Reynolds ^G	D Rowland	MV Sennitt ^X	D Smith ^T
M Ricci ^X	D Rowlands	K Seymour ^T	DI Smith
T Rich ^X	S Rowledge ^X	M Shaft ^H	KW Smith ^{BMT}
L Richards ^T	M Royal ^U	I Shaieb ^U	L Smith ^{BMT}
JE Richardson ^T	SJR Rumsey	M Sharp ^T	M Smith ^W
L Richardson ^{BH}	L Rusbridge ^T	M Shave ^U	PA Smith ^{HT}
SC Richardson	C Russell	MD Shaw ^{BCHTW}	R Smith ^D
G Richens ^W	J Russell ^X	C Shawyer ^T	S Smith
R Ricketts ^U	MJ Russell ^{CT}	B Sheldon ^U	AC Smithen ^{BCTW}
C Rinaldi ^U	SA Russell ^D	M Sheldon ^D	J Snell ^U

TG Snow ^{BC}	E Stubbs ^U	S Thomas ^B	G Turvey ^{BCMT}
D Snowdon ^{TX}	J Stylianou ^T	T Thomas ^{BDMTUW}	C Twitchen ^{TX}
K Sodomkova ^X	E Sullivan ^X	E Thompson ^U	WM Twitchett ^T
L Sole ^U	D Sulway ^T	G Thompson ^X	HL Twizell ^B
S Solliss ^X	CJ Sutton ^X	J Thompson ^X	M Twydell ^{MX}
P Solly	K Sutton ^U	J Thompson ^B	P Tyler ^T
S Songhurst ^X	S Sutton ^X	L Thompson ^U	K Tynan ^U
S Sonsino ^T	G Swan ^U	M Thompson ^T	R Ulph ^U
J Soper-Bels ^U	I Swann ^X	PS Thompson	G Upton ^T
T Sorby ^U	K Swann ^X	SRB Thompson ^U	N Upton ^U
C Souter ^W	J Swann White ^T	E Thorburn ^G	R Upton ^T
J Southam ^U	P Swaysland ^T	B Thorne ^U	T Urban ^U
L Sparkes	A Sweetman ^B	D Thorns ^T	M Usher ^X
L Spender ^G	F Swift ^G	P Thornton ^{TW}	M Valeriani ^U
GC Spinks ^U	H Swift ^T	S Thorpe ^U	N Van Der Veen ^T
J Spinks ^U	R Swinbank ^T	L Thorpe-Young ^T	P Varnham ^X
T Squire ^{CDUX}	Y Szczech ^U	A Thrasher ^X	M Varvill ^X
A Srdic ^W	P Szota ^T	A Thyer ^T	A Vergara-Lansdell ^X
P Standing	T Sztypuljak ^U	J Tike ^U	D Verrall ^X
S Standing ^U	B Szz ^T	J Tilby ^T	C Vince ^W
A Stanger ^T	WIE Tagg ^X	L Tillman ^X	C Vines ^G
R Stanley ^U	F Tait ^X	AD Tindale ^T	M Violette ^U
J Stant ^X	N Taite ^T	C Tinkler ^X	S Virgo
J Stanton-Roberts ^X	S Tanner ^X	PA Tinning ^X	V Vrint ^T
T Stapleton ^{TU}	H Tarmizi ^U	PC Tinning ^X	J Vyas ^U
H Stebbing ^G	KN Tarrant ^{TU}	R Tite ^X	P Waghorn ^T
C Steed ^T	AR Tatar	J Todd ^{TU}	A Waite
AJ Steele ^{TU}	G Tate ^U	R Todd	H Wakeford ^{CDEM}
R Steele ^U	J Taw ^X	D Tombling ^X	D Walker ^W
D Steely ^X	A Taylor ^W	M Tomlins ^T	H Walker ^U
R Stephens ^T	A Taylor ^U	D Tomlinson ^C	N Walker
W Stephens ^U	B Taylor ^T	J Tomlinson ^{UW}	S Walker ^T
D Stevens ^U	K Taylor ^U	TJ Toohig	S Walker ^U
PC Stevens	L Taylor ^W	P Towend	PH Wallace ^U
PD Stevens ^{TX}	LJ Taylor ^T	P Townend ^T	? Waller ^T
PR Stevens ^T	P Taylor ^U	W Townsend ^T	C Wallis ^X
G Stewart ^U	RJ Taylor ^T	C Tracey ^X	D Walsh ^{TU}
N Stewart ^T	S Taylor ^X	Trektellen ^T	SF Walsh
J Stokes Neustadt ^U	S Teale ^X	S Trenerry ^T	I Walsh-Lloyd ^X
N Stonestreet ^{DT}	A Tebb ^T	G Trew ^{BCTW}	J Walston ^U
D Storey ^X	G Tebbs ^X	S Trice ^X	R Walton ^X
J Stott ^U	M Telfer ^X	CE Trollope ^{HT}	A Ward ^X
M Stovell ^U	C Temple ^U	C Trotman ^X	A Ward
PJ Strangeman ^D	D Thatcher ^X	JE Trowell ^W	G Ward ^{BT}
S Streeter ^M	A Thomas ^T	L Trownson ^X	GC Ward ^C
M Strevens ^T	E Thomas ^B	M Tse-Leon ^U	S Ward ^X
P Strzelecki	K Thomas ^T	D Tunnel ^U	P Wardell ^X
S Stuart ^T	RD Thomas ^{BCT}	M Turner ^W	M Warden ^U

D Ware ^{TW}	R Werran ^T	P Whitmarsh ^X	A Witts ^T
J Wareing ^U	A West ^{BCT}	E Whittaker-Slark ^D	C Wood ^{BC}
C Waring ^T	DR West ^{CT}	M Wiggins ^T	C Wood ^U
N Warne ^B	R West ^T	R Wiggins ^T	JM Wood ^X
D Warner ^B	S West ^U	S Willcock ^U	M Wood ^B
D Warren ^U	A Westenberger ^U	A Wilkes	M Woodgate ^X
N Warwick ^{BT}	JD Weston ^T	A Wilkinson ^U	L Woodhead ^T
A Wasik ^X	L Whale	J Wilkinson ^{TW}	V Wood-Mewett ^{BCT}
A Wasley ^U	AV Wheatcroft ^T	M Wilkinson	J Wooldridge ^{BT}
A Waterhouse ^X	K Wheatley	R Wilkinson ^T	K Woolner ^{DT}
C Waters ^M	M Wheaton ^X	R Wilkinson ^U	C Worsley ^T
T Waters ^{HW}	E Whitby ^X	S Wilkinson ^X	C Wren ^T
D Watkins ^B	P Whitby ^W	AJ Williams	L Wren ^T
J Watkins ^U	AD Whitcomb	DC Williams ^M	L Wren ^X
V Watkins ^U	IJ Whitcomb ^T	G Williams ^X	R Wren ^T
RF Watson ^T	PJ Whitcomb ^T	I Williams ^X	CMV Wright ^{BCDTW}
B Watson Hernandez ^U	C White ^T	J Williams ^U	K Wright ^M
PJ Watts ^T	D White ^T	L Williams ^X	M Wright ^T
A Weatherald	T White ^X	R Williams ^T	P Wright ^X
J Weatherald	G Whitehead ^U	P Williamson ^U	T Writer ^U
S Webb ^U	A Whitehouse ^T	J Willmott	D Wyatt ^X
PJ Webster ^{TU}	J Whitehouse ^U	J Willsheer	J Wyatt ^T
P Weddell ^T	N Whitehouse ^U	C Wilson	M Yallop ^X
S Weingarten ^U	D Whiteley ^X	C Wilson ^X	BJ Yates ^{WX}
W Welch ^X	J Whiting ^U	I Wiltshire ^B	D Yates
L Wells ^T	J Whitlock	M Wiltshire ^T	D Yelland ^U
PJ Wells	AM Whitman	M Wimsett ^U	S Younger ^U
AJ Wende ^T	J Whitman ^{GX}	C Winchester ^{DX}	M Zanoletti ^U
P Wenham ^X	JH Whitman	MP Winkworth ^T	T Zoppi ^T

Key to superscripts in the above table

B	Breeding Birds Survey (BBS)
C	Sussex Winter Bird Survey (SWBS)
D	South Downs Farmland Bird Initiative (SDFBI)
E	Wealden Heaths Breeding Bird Survey (WHBBS)
G	Urban Gull Survey
H	Heronry Census
M	Marsh Tit Survey
T	Contributors via <i>BirdTrack</i>
U	Contributors via Cornell University's e-Bird
W	Wetland Bird Survey (WeBS)
X	Contributors via Sussex Biodiversity Records Centre, iRecord or iNaturalist

The society is aware many observers watch in groups or families where just one member has recorded the observations; in these circumstances other members of the group may not be included in the extensive listing above.

Assistance to Recorder

The Recorder and Database Manager thank contributors for submitting their records through one of the on-line recording systems or providing the society with digitised records. Particular thanks to the following team of helpers for capturing records submitted on paper or preparing datasets for importing into the society's database - CJR Barfield, JR Cowser, AS Glossop, T Howard-Jones, and JH Whitman.

Surveys

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

Breeding Bird Survey (BBS):

This BTO annual national breeding survey, based on selected 1-km squares, was organised in Sussex by Dr Helen Crabtree, 6 Blackstone Street, Henfield, West Sussex, BN5 9TH (hcrabtree@gmail.com). Thanks are due to the 133 observers involved who are indicated by ^B in the above table.

Sussex Winter Bird Survey (SWBS):

This county survey based, like the BBS, on selected 1-km squares, was organised in Sussex for 2021 by Christine George (sussex.wbs@gmail.com). Thanks are due to the 119 observers involved who are indicated by ^C in the above table.

South Downs Farmland Bird Initiative:

This survey started in 2014 with the aim to monitor the farmland birds within the South Downs National Park. This survey was organised by Dr Helen Crabtree (contact details above) and involved a BBS like survey of randomly selected 1-km squares containing at least 50% farmland habitat. The BBS squares in the national park were included in this survey and the 47 surveyors involved are shown with ^D in the above table.

Wealden Heaths Breeding Bird Survey:

This continuing survey of heaths and heath woodlands is undertaken in collaboration with the RSPB and the bird clubs of Berkshire, Hampshire and Surrey. The Sussex organiser is A Perry, Edgehill Barn, Byworth near Petworth, West Sussex, GU28 0HR (alan@alanperry.uk.com). Thanks are due to the eight observers involved who are indicated by ^E in the list of contributors.

Heronry Census:

This long-standing national census was organised in Sussex during 2018 by Dr Helen Crabtree (contact details as above). Counts of breeding Grey Herons, Little and Cattle Egrets and Cormorants are given in the systematic list. Thanks are due to the 32 contributors who are indicated by ^H in the above table.

Urban Nesting Gulls survey:

This national survey, part of Britain and Ireland's 4th Breeding Seabird Census, was organised in Sussex by Alison Giacomelli (Alison.giacomelli@naturalengland.org.uk) but completion of the survey was delayed due to COVID-19 restrictions; the fieldwork was finished in 2021. Thanks to the 39 surveyors who are indicated by ^G in the above table.

Marsh Tit Survey:

This county survey, which was also affected by COVID-19, was organised by Dr Rich Black (richard.a.black1@gmail.com) in 2020 and Matt Twydell (sos.surveyofficer@gmail.com) in 2021; the 40 contributors are marked with ^M in the list of contributors.

Wetland Bird Survey (WeBS):

Monthly counts were carried out for this BTO/WWT/RSPB/JNCC survey and organised by Dr Helen Crabtree (contact details as above) and Dave Boddington, 193, Hartington Rd, Brighton, BN2 3PA (davebodds@yahoo.co.uk). Coordinating the counts in large areas has been undertaken by local reserve wardens as shown below. Thanks are due to these and the 108 counters who are indicated by ^W in the list of contributors.

Co-ordination of Seawatching Records:

The annual co-ordination of these records for the Society is carried out by Dr JA Newnham, 61 Grand Avenue, Worthing, West Sussex, BN11 5BA (j.newnham1@ntlworld.com).

Summaries of Observations

We are grateful for organising survey work or summaries of detailed observations at Chichester Harbour from PH Hughes; Thorney and Pilsey Islands from CB Collins; Medmerry and Pagham Hbr from IM Lang; Selsey Bill from J Atkinson; Arundel WWT from S Lanaway; the Arun Valley from the team at RSPB Pulborough; Worthing from Dr JA Newnham; Horsham District Council reserves from JJ Everitt; Weir Wood Reservoir from RJ Johnson; Ashdown Forest from P Johnson; Telscombe Cliffs from DH Howey; Splash Point (Seaford) from BR Gilmore; Fairlight from A Parker; Bewl Water from MG Freeman and MJ Phillips; and Rye Harbour from Dr BJ Yates. We also thank Mrs C Blencowe and R Foreman at the Sussex Biodiversity Records Centre for providing ornithological records from the centre and with records via iRecord and iNaturalist this involved 395 observers (marked **X** in the above table). Once again records from the Cornell Laboratory of Ornithology (eBird) have been included and involved observations from 479 recorders each labelled **U** in the contributor's table. Additionally, there were records from iNaturalist observers whose records could only be identified by a code and therefore cannot be individually acknowledged. The online recording of the British Trust for Ornithology (BTO) surveys provided a plethora of records; the 691 Sussex contributors to BirdTrack are marked with a **T** in the above table. The records from Birdguides and Trekellen for 2021 were again channelled through BirdTrack. Thanks are due to the BTO for the county BirdTrack records which included a large portfolio of figures based on the Sussex 2021 records created by Simon Gillings to aid the authors of the species accounts. The BTO also provided the county records for the Breeding Bird Survey, the Wetland Bird Survey and the detailed records from 408 Garden BirdWatch participants. Thanks also to the RSPB and Sussex Wildlife Trust for the records from their reserves in Sussex.

Ringling

Thanks are due to VP Bentley for maintaining detailed records of ringling in the county and to all ringers who contributed data.

The Sussex Ornithological Society

Who are we and what do we do?

The Society was formed in 1962 to promote the recording, study, conservation and enjoyment of birds in Sussex.

We encourage members to keep and submit records of the birds they see, and to take part in survey work to monitor bird populations. Our database now has well over seven million records, which are regularly used in support of wildlife conservation.

What are the benefits of membership?

- our quarterly newsletter to keep you up to date
- a free copy of our award-winning annual Bird Report
- regular outings led by expert birders
- your membership supports conservation work to help Sussex birds

Visit our website

www.sos.org.uk

**for the latest bird sightings
in Sussex and information
about the society and how
to join us**





Common Tern and Black-headed Gulls, West Wittering, 22 May (Bob Brewer)

Index

Species in the Systematic List

Avocet	54	Egret, Great White	105
Bee-eater	120	Egret, Little	106
Bittern, Eurasian	103	Eider, Common	35
Blackbird	162	Fieldfare	162
Blackcap	150	Firecrest	154
Brambling	179	Flycatcher, Pied	166
Bullfinch	181	Flycatcher, Spotted	165
Bunting, Corn	187	Fulmar	96
Bunting, Little	188	Gadwall	30
Bunting, Reed	189	Gannet	98
Bunting, Rustic	189	Garganey	29
Bunting, Snow	186	Godwit, Bar-tailed	61
Buzzard, Common	113	Godwit, Black-tailed	62
Chaffinch	178	Goldcrest	154
Chiffchaff	146	Goldeneye	38
Coot	48	Goldfinch	184
Cormorant	99	Goosander	39
Crane	49	Goose, Barnacle	21
Crossbill, Common	184	Goose, Brent	19
Crow, Carrion	132	Goose, Canada	20
Crow, Hooded	132	Goose, Egyptian	26
Cuckoo, Common	43	Goose, Greylag	22
Curlew	61	Goose, Pink-footed	23
Diver, Black-throated	94	Goose, Tundra Bean	23
Diver, Great Northern	95	Goose, White-fronted	23
Diver, Red-throated	93	Goshawk	110
Dove, Stock	45	Grebe, Black-necked	51
Dove, Turtle	46	Grebe, Great Crested	50
Dove, Collared	46	Grebe, Little	49
Duck, Long-tailed	37	Grebe, Red-necked	50
Duck, Ring-necked	34	Grebe, Slavonian	51
Duck, Tufted	35	Greenfinch	181
Dunlin	67	Greenshank	76
Dunnoch	172	Guillemot, Common	91
Eagle, White-tailed	112	Gull, Black-headed	79
Egret, Cattle	103	Gull, Caspian	84
		Gull, Common	81

Gull, Glaucous	82	Moorhen	47
Gull, Great Black-backed	82	Nightingale, Common	166
Gull, Herring	82	Nightjar	42
Gull, Iceland	82	Nuthatch	155
Gull, Lesser Black-backed	84	Oriole, Golden	128
Gull, Little	80	Osprey	107
Gull, Mediterranean	80	Ouzel, Ring	163
Gull, Sabine's	78	Owl, Barn	115
Gull, Yellow-legged	84	Owl, Little	116
Harrier, Hen	111	Owl, Long-eared	116
Harrier, Marsh	110	Owl, Short-eared	116
Hawfinch	180	Owl, Tawny	117
Heron, Grey	104	Oystercatcher	53
Heron, Purple	105	Parakeet, Ring-necked	127
Hobby	125	Partridge, Grey	40
Honey-buzzard	108	Partridge, Red-legged	42
Hoopoe	118	Peregrine	126
Ibis, Glossy	100	Petrel, Leach's	96
Jackdaw	130	Phalarope, Grey	72
Jay	128	Pheasant, Common	41
Kestrel	124	Pigeon, Feral	45
Kingfisher	118	Pintail	32
Kite, Black	112	Pipit, Meadow	175
Kite, Red	112	Pipit, Richard's	175
Kittiwake	78	Pipit, Rock	177
Knot	64	Pipit, Tree	176
Lapwing	55	Pipit, Water	177
Lark, Shore	139	Plover, Golden	56
Lark, Short-toed	139	Plover, Grey	57
Linnet	183	Plover, Kentish	60
Magpie	130	Plover, Little Ringed	58
Mallard	32	Plover, Ringed	58
Mandarin	27	Pochard, Common	34
Martin, House	140	Pochard, Red-crested	34
Martin, Sand	139	Pratincole, Collared	77
Merganser, Red-breasted	40	Puffin	92
Merlin	124	Quail	42
Mockingbird, Northern	157	Rail, Water	47

Raven	133	Snipe, Jack	70
Razorbill	91	Sparrowhawk	109
Redpoll, Common	183	Sparrow, House	172
Redpoll, Lesser	183	Sparrow, Tree	171
Redshank, Common	73	Sparrow, White-throated	189
Redshank, Spotted	75	Spoonbill	101
Redstart, Black	167	Starling, Common	158
Redstart, Common	168	Starling, Rose-coloured	157
Redwing	161	Stilt, Black-winged	54
Robin	165	Stint, Little	69
Rook	131	Stint, Long-toed	66
Ruff	65	Stint, Temminck's	66
Sanderling	66	Stonechat, Eurasian	170
Sandpiper, Common	72	Stone-curlew	52
Sandpiper, Curlew	66	Stork, Black	98
Sandpiper, Green	73	Stork, White	98
Sandpiper, Pectoral	70	Swallow, Barn	140
Sandpiper, Purple	68	Swallow, Red-rumped	141
Sandpiper, Wood	74	Swan, Bewick's	25
Scaup, Greater	35	Swan, Mute	25
Scoter, Common	36	Swan, Whooper	26
Scoter, Velvet	36	Swift, Common	43
Serin	185	Teal, Eurasian	33
Shag	100	Tern, Arctic	88
Shearwater, Balearic	98	Tern, Black	89
Shearwater, Cory's	97	Tern, Common	87
Shearwater, Manx	97	Tern, Little	86
Shearwater, Sooty	97	Tern, Roseate	87
Shelduck, Common	27	Tern, Sandwich	85
Shoveler	29	Thrush, Mistle	159
Shrike, Great Grey	128	Thrush, Song	159
Shrike, Red-backed	127	Tit, Bearded	136
Siskin	185	Tit, Blue	135
Skua, Arctic	90	Tit, Coal	134
Skua, Great	89	Tit, Great	135
Skua, Long-tailed	91	Tit, Long-tailed	142
Skua, Pomarine	90	Tit, Marsh	135
Skylark	137	Treecreeper, Eurasian	156
Smew	39	Turnstone	64
Snipe, Common	71	Wagtail, Grey	174

Wagtail, Yellow	173	Wheatear, Northern	170
Wagtail, Pied	174	Whimbrel, Eurasian	60
Warbler, Blyth's Reed	148	Whinchat	169
Warbler, Cetti's	142	Whitethroat, Common	152
Warbler, Dartford	153	Whitethroat, Lesser	151
Warbler, Dusky	145	Wigeon, Eurasian	31
Warbler, Garden	151	Woodcock	70
Warbler, Grasshopper	149	Woodlark	137
Warbler, Marsh	148	Woodpecker, Great Spotted	122
Warbler, Melodious	149	Woodpecker, Green	123
Warbler, Pallas's Leaf	144	Woodpecker, Lesser Spotted	121
Warbler, Reed	148	Woodpigeon	45
Warbler, Sedge	147	Wren	155
Warbler, Willow	145	Wryneck	120
Warbler, Wood	143	Yellowhammer	188
Warbler, Yellow-browed	144		



Kestrel, Cuckmere Haven, 23 August (James Woodbridge)