

SOS Survey Strategy

Updated: November 2020

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Background

SOS has an excellent track record in supporting national surveys and following its own programme of surveys. After her appointment as SOS Surveys and Projects Officer in 2013, Clare Buckle reviewed the survey programme and proposed surveys for the next few years most of which have already been completed (see Table 1 below). SOS organises the annual Sussex Winter Bird Survey, which is co-ordinated by Christine George (sussex.wbs@gmail.com) and supports ongoing annual surveys such the Wealden Heaths Surveys and South Downs Farmland Bird Surveys. The information below does not cover these or the regular BTO surveys such as the Breeding Bird Survey (BBS) and the Wetland Bird Survey (WeBS) – see the SOS and BTO websites for further details or contact the Sussex BTO representative Dr Helen Crabtree (hcrabtree@gmail.com) on BBS and WeBS inland sites and Dave Boddington (davebodds@yahoo.co.uk) for coastal and estuary sites. Helen is also the contact for the South Downs Farmland Bird Survey and other BTO surveys including Woodcock and heronries. Alan Perry (ap@alanperry.uk.com) leads on the Wealden Heath Surveys. We expect there to be further BTO-led Non-estuarine Waterbird surveys, though these are carried out roughly every ten years and the next is not due until about 2027.

Table 1. Recent surveys completed by SOS/BTO volunteers. Note all species are colour coded in the tables according to their national red list status – red, amber and green

Year	Species/group	Narrative
2018/19	Tawny Owl	National BTO survey completed
2018/19	Winter farmland birds	National BTO survey completed
2019	Turtle Dove	SOS survey completed
2019	Willow Tit	SOS survey completed

Survey Strategy

In 2019 a subgroup of the SOS Scientific Committee met to assess the need for species surveys and produce a short list of candidates. This group consisted of Richard Black (then Surveys and Project Officer), Ken Smith, Clare Buckle (Secretary to Scientific) and Mark Mallalieu (County Recorder and Chair of Scientific). In this paper we convert the list produced into a proposed programme of surveys up to 2027, the presumed start of the next BTO Atlas survey period (Table 2).

The key is to remain flexible. This list forms a framework but it will be brought to the Scientific Committee annually for consideration and to ensure it fits in with national surveys. We will also consider whether any species should be added or removed from the list, for example a species that had declined to the extent that it dropped off the BTO BBS trends would be a strong candidate for addition.

The species proposed in Table 2 are those which we believe are suitable for surveys using SOS volunteers. Some additional notes on the proposed groups and species are included below the table. It is suggested that species surveys are repeated on a roughly ten-year cycle. Study group surveys (such as the Honey-buzzard survey) will be included in the programme where there is good county-wide coverage or a systematic sampling approach is used.

Table 2. Current and proposed SOS surveys up to the next BTO atlas period.

Year	Species/group	Narrative
2020 and 2021	Honey-buzzard	A National Honey-buzzard survey using a study group approach is being led in Sussex by Mark Mallalieu. It will aim for as near to full county coverage as possible.
2020 and 2021	Marsh Tit	This survey, organised by Richard Black, was begun in 2020 but had to be stopped early due to the lockdown. The plan is to complete the survey in 2021, with the aim of: 1) Surveying the selected squares that were not covered in 2020. 2) Resurveying a number of squares (c. 10) completed in 2020 to check results are comparable. 3) Potentially surveying some extra random squares, aiming for a total of 60 squares.
(2020) 2021	Chiddingfold Forest	This joint survey with the Surrey Bird Club will be organised in Sussex by Ken Smith. Looking at Nightingale and Turtle Dove. Delayed from 2020 due to lockdown. With the Covid restrictions lifted, Turtle Dove in the Sussex sites were surveyed in 2020. Full survey now planned for 2021.
2021	National Seabird census	The 2020 urban nesting gull survey was delayed due to lockdown, but was restarted for volunteers who were happy to do so. It will be completed in 2021.
2021	Turtle Dove	RSPB national survey, so this species will be resurveyed in Sussex.
2021	Breeding waders	National BTO/RSPB survey of LWG waders – Lapwing, Redshank and Snipe. This has been cancelled in 2020 because of the lockdown and we are waiting to hear if it will resume next year (see notes below).
2022	Nightingale	Last surveyed 2012. Principal survey period 27 April to 14 May (optional nocturnal visits 18 May to 4 June probably not needed in this survey).
2023	Nightjar	Last surveys BTO 2004, BTO 2010 (Ashdown Forest SPA only). West Sussex heaths already well covered. Work on methodology and site selection to begin in late 2021.
2023	Woodcock	This would be a second survey with its own, point count, methodology following BTO methods used in 2002 and 2013. Design will reflect previous 1km squares surveyed in Sussex and sample monitoring.
2024	Corn Bunting	SOS surveys 93/94, 2014. Will use a sampling survey methodology based on the 2014 survey.
2025	Tree Pipit (or a species from table 3.)	Partly covered in 2017. Early season. This would be a sampling survey based on the distribution from the last Atlas but also including the scarp slope of the South Downs which <i>may</i> have been under-recorded for this

		species in the Atlas.
2025	House Martin	Last BTO survey 2015. Late season. Will use a sampling survey methodology based on the 2015 survey.
2025	Sand Martin	Last survey in 2010. Will involve identifying the limited number of active nest sites and counting nests.
2026	Rook	Rookery survey.
2026	Meadow Pipit (or a species from Table 3.)	This would be a sampling survey based on the distribution from the last Atlas.
2027	Woodlark	Last survey SOS 2017. Mainly heathland sites but need try to pick-up breeding pairs in clearfells, farmlands and vineyards.
2027	Stonechat	Last survey SOS 2016. Mainly heathland sites but need to pick-up breeding pairs in downland gorse, river valleys and levels, vegetated beach shingle and golf links.
2027	Dartford Warbler	Last survey SOS 2017. Heathland sites.

We assume that BTO will be organising the next national atlas from the 2028 breeding season. The national atlases are such a key part of the BTO survey programme and profile that it seems very likely that this will go ahead although the exact form and methods are likely to evolve from previous incarnations. We assume SOS will aim to do a repeat tetrad atlas survey of the whole county but this will need to be reviewed once the national BTO methods are clear.

It remains SOS policy to support national surveys (principally those of the BTO). It is also intended that SOS continue to look at national surveys and consider whether anything is to be gained by increasing coverage in Sussex (especially when the national survey involves some sort of sampling). Given that BTO surveys are often launched with very short notice, the SOS survey programme needs to be flexible to be able to respond to national priorities and to avoid overloading the volunteer surveyors.

Notes on Upcoming Surveys

- Impracticable species. We have concluded that Spotted Flycatcher and Kingfisher are impracticable and are best left to the next Atlas period. Although for SF it may well be worth trying a media campaign to appeal for records from the public.
- Further investigation. We have concluded that a group of species (Fulmar, Water Rail, Ringed Plover, Little Owl, Common Swift and Grey Wagtail) require further investigation to determine the necessity and/or practicability of a county wide SOS survey (see detail in Table 3).
- Study Group Species. There are a few study group species that might benefit from a survey. They are too restricted in distribution or specialised in survey method to be 'general' SOS surveys but, like Honey-buzzard, a systematic survey of the county population by a group of committed individuals would be useful (see detail in Table 4).
- Breeding Waders of Wet Meadows (BWWM). This BTO/RSPB survey has been cancelled for this year due to the Covid 19 lockdown. It may be cancelled entirely but the hope is that it is just delayed. If it does go ahead (presumably in 2021) it will be a priority for SOS support. It would be

beneficial to organise additional survey work on the Lapwing population breeding on farmland in Sussex to run alongside the BWWM survey. This would allow us to get a county picture for the species. If and when the survey is confirmed the Scientific Committee will discuss the feasibility of extra Lapwing work. The large number of potential sites may be an issue, although some of the key sites, such as the Arun valley and farms on the Downs, are already covered annually by GWCT/SDNPA/WWT/RSPB. Additionally, if the national BWWM survey is cancelled entirely SOS will consider whether to conduct our own Sussex wader survey.

- 2022 Surveys. Nightingale is declining rapidly and not well recorded outside survey years. Nightjar was considered as data on designated species is needed for Ashdown Forest. However, the current proposal is to survey Nightjar in 2023 but with preparatory work beginning in the winter of 2021/22. This will be kept under review.
- 2023 Surveys. These would be Nightjar, as mentioned above, and Woodcock. This would not be a combined survey but, rather, two separate surveys with different methodologies running in the same year. However, Nightjar might be picked up by Woodcock surveyors and vice versa and perhaps the same people might survey particular sites for both.
- Martin Survey. 2025 is ten years after the last House Martin survey and it would be tidy to survey Sand Martin in the same year. The two surveys would use different methodologies and cover different sites and habitats.
- 2025 and 2026 Surveys. There are survey slots open in these years and species will be confirmed closer to the time. Potential candidates are Tree Pipit and Meadow Pipit or possibly one of the species in Table 3 pending the outcome of further investigation.

Table 3. Species requiring further investigation.

Species/group	Questions to be answered
Fulmar	The Seabird Census has covered all the suitable habitat so is an additional SOS survey is needed in this cycle of surveys?
Water Rail	Very poorly known and not well covered by the Atlas. There is a playback methodology for end March to early April (Brambilla and Jenkins 2009) so it might fit in as an early survey if sites can be identified.
Ringed Plover	An important species in relation to coastal disturbance and a long history of SOS surveys. Is it sufficiently well covered by current surveys on reserves and casual records?
Little Owl	A declining species so worth surveying but a suitable methodology, potentially using playback, needs to be devised.
Common Swift	No county survey since 2000 but a number of study groups exist (Brighton, Lewes). The SOS Swift Champion and Conservation Officer will be key decision makers in how to conduct this survey. The RSPB are devising a new survey methodology based on screaming parties which should be available soon.
Grey Wagtail	It would be useful to have a county survey but we have concerns about feasibility and identifying and accessing breeding sites.

Table 4. Study group species for which a county count would be useful

Species/group	Narrative
Goshawk	There has not yet been a county wide survey of the expanding population. A study group approach rather than a wider appeal for volunteers is probably the most appropriate.
Long-eared owl	Pen and Dave Green surveyed the species in 2011. The population appears to be increasing again after dipping after 2011.
Tree Sparrow	Declining and really only now found in Pevensey and Romney Marsh. Could be a recovery project with supplementary feeding and nest boxes but needs a leader based in the area.