

Tawny Owl Point Survey 2018/19

INSTRUCTIONS FOR VOLUNTEERS

WHY WE ARE DOING THIS SURVEY

Despite being widespread across Britain, Tawny Owls are one of our less understood breeding species. BTO's core monitoring schemes are daytime surveys, so are not able to adequately monitor these nocturnal owls. The BTO/RSPB/JNCC Breeding Bird Survey trends that we produce from one of our core surveys suggest that Tawny Owl populations have declined in recent years. We get better information on how Tawny Owl populations are doing by carrying out periodic targeted surveys, the last of which were carried out in the autumns of 1989 and 2005. This autumn's survey builds on these previous surveys, with the intention of securing up to date measures of change in both the occupancy of selected survey squares and the relative abundance in Tawny Owl populations; we also want to relate any geographical patterns that we find to potential causes of change.

Tawny Owls are most detectable in the autumn but at this time of the year the population also includes the young owls born earlier in the season. To help relate the autumn counts to the numbers of breeding pairs present the following year, we plan to repeat the survey again in February/March 2019. We also plan to repeat the survey in autumn 2019 and spring 2020. As with all bird species, Tawny Owls breeding success varies from year to year; by collecting information from more than one year, we can examine how abundance changes and see how it relates to measures of breeding success derived from other BTO studies.

WHAT WE WANT TO ACHIEVE

We want to provide reliable data on Tawny Owl presence and abundance in sample areas, using the best methods for comparing with past surveys and which can be repeated in future years, so that population change can be assessed accurately. The results of this survey will be published and used:

- To compare with the results from the 1989 and 2005 surveys to measure changes in occupancy and abundance since 1989.
- To compare Tawny Owl occupancy and numbers in different areas and habitats, with a particular focus on woodland and the effects of urbanisation.
- To monitor changes in Tawny Owl abundance across different seasons and in relation to breeding success.

HOW TO TAKE PART

Where to count: The Tawny Owl Point Survey aims to cover a selection of 2x2km survey squares (known as 'tetrads') throughout the British range of the species. Based on past survey coverage, a nationwide selection of target tetrads has been produced with two different levels of priority ('higher' and 'lower'). Target tetrads will be issued through an online allocation system allowing you to select available tetrads in your region for the autumn survey period. This request will then be approved by your Regional Organiser and you'll be all set for the survey. If you are unable to or would rather not use the online system, available tetrads can also be issued by contacting your Regional Organiser. Should all the target tetrads in your area already be allocated, additional tetrads can also be released for allocation by contacting your Regional Organiser.

We would like you to make a series of counts within your assigned tetrad(s) from a single point location, which is selected by you as close as possible to the tetrad centre. In most cases this will be the nearest public access to the centre of the tetrad, but ideally it should be within 300m of the actual centre and the same for each visit. Points close to busy roads or where extraneous noise might affect the count should be avoided where possible (choose an alternative point within 300m). An online link to a map of your tetrad with both OS and satellite imagery will be provided so you can familiarise yourself with the area; this can be printed off and sent to you if required. If you can't sensibly get within 300m of your chosen tetrad centre please consult your Regional Organiser to confirm your best survey approach.

How often to make a count: Please make two visits to your tetrad, each visit with two consecutive (i.e. without a gap) point counts undertaken. The two visits should ideally be made within two weeks of each other. A point count lasts for 10 minutes, so usually you will do two visits, each lasting 20 minutes (2 x 10 minute point count) though we'd encourage those who are keen to make an additional third visit to the tetrad. In exceptional circumstances, such as with difficult to access points, it is acceptable to undertake a single visit with three consecutive 10 minute point counts, the visit lasting for 30 minutes. *Other point count combinations up to a maximum of three visits and three consecutive point counts per visit, ideally all within two weeks (and a maximum of one month), can also be undertaken. The approach is quite flexible and if you would like advice, please contact your Regional Organiser.*

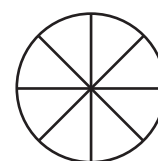
How to do the point counts: During each visit, two consecutive (i.e. without a gap) point counts should be undertaken. Each individual point count period should last exactly 10 minutes and results from each 10 minute period should be recorded separately, regardless of what was heard in any other point count on that (or any previous) evening. Point count periods should fall within the two hours following sunset, between 15 August and 15 October 2018. We plan to repeat the survey again during early spring 2019 with the intention of also repeating it in autumn 2019 and early spring 2020. Only carry out counts when the weather is calm and dry. Precipitation and wind both reduce calling activity of owls. Do not use sound lures before or during point count surveys as these will seriously bias the results. If you hear/observe a Tawny Owl on site but outside of the point counts or have local knowledge that they have been present in area recently (within the last six months) this can be recorded in the form under the question as to whether Tawny Owls are known to be present.

How to record the owls: During each 10 minute point count you should remain stationary and record the number of Tawny Owls heard hooting and calling. At the end of the period an assessment of the total number of territories 'heard' during each separate point count period should be made. Due to the need to compare results with past surveys each count period should be considered independent and entirely separately when calculating the number of territories. For example, should owls be heard from consecutive point counts in such a way that you believe they represent entirely different territories but they did not hoot/call within the same 10 minute point count this **must** be recorded as one territory per point count, regardless of if you believe there are more territories present. Likewise should you hear an owl in the first point count but not in the second (or vice versa) it is important to record territories estimates of one and zero respectively. The criteria for the identification of a territory are:

- Single hooting or calling bird. No other birds heard within approximately 300m of it.
- Hooting bird with calling bird – at distance of less than approximately 300m of each other.
- Hooting bird with second bird hooting softly in response less than 300m apart. These last two categories both represent the male and female of a pair vocalizing to each other.

Two hooting or calling birds more than approximately 300m apart should be recorded as two territories. If two birds are hooting loudly together, even if less than 300m apart, they should be counted as two territories, as they represent two males in a territorial dispute. A set of illustrative calls will be provided on the Project Owl webpages (www.bto.org/owl). Don't forget to record zeros if you don't hear an owl during a point count, as zero counts are just as important as actual counts of owls in this survey. Zero counts not only tell us about how well we detect owls that we believe should be present but also tell us where they appear to be absent, allowing us to examine why that may be, especially if they were present in the past.

Recording local survey conditions: Record cloud cover using the okta (1/8) system. For this you note the amount of cloud cover by looking at the sky and imagine that it is a hemisphere (or bowl) centred over your position. Then divide the bowl into eight segments and work out how many segments' worth are covered with cloud. Under the system we are using 0 = cloudless; 1–4 = up to approximately 50% cloud (partially cloudy); 5–7 = 50 to almost 100% cloud (mostly cloudy) and 8 = completely clouded over.



Recording other species: If you feel confident in your ability to identify other owl species heard/seen during the point counts, their presence or absence within each point count can also be recorded per individual point count. If you didn't listen out for them or don't feel confident in your identification ability this should be recorded too as 'don't know'. Likewise the presence of other nocturnally active birds and wild mammals, such as barking deer, can also be recorded in a similar fashion. These additional records are entirely optional. The bird records will be used to inform possible future survey work and provide a source of local records, while mammal records will be submitted to the Mammal Society. Therefore any additional records must be identified to species level to be valid.

How to submit your results: When you have completed your final visit (or if you prefer as you go along) please input your survey data into the online system (www.bto.org/volunteer-surveys/project-owl/tawny-owl-point-survey) in full by the 15 December. Alternatively please forward your final survey sheets after all your visits are completed to your Regional Organiser by the 15 December. Please only submit your survey data by one system and not both.

Additional Survey Information: If you any further information or advice about the survey please consult the online FAQ at www.bto.org/volunteer-surveys/project-owl/tawny-owl-point-survey/faq or your Regional Organiser.

SAFETY: When you are surveying owls after dark, especially if in remote areas, make sure that you let someone know where you have gone and when you expect to return. Always carry torches, a mobile phone, warm clothing and, in remote areas, a supply of food and drink. Volunteers are responsible for their own health and safety and should not put themselves in a position that could place them, or others in danger. You are strongly advised not to undertake any activity if you have any concerns about risks to your own or others' health and safety (<https://www.bto.org/volunteer-surveys/taking-part/health-safety>).

DATA PROTECTION: If you are providing name, address and other personal details, BTO will store and use your personal details in line with our published Privacy Policy. You can specify your preferences about the way we contact you at any time. For further details, see www.bto.org, or email info@bto.org, or phone 01842 750050.

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OTHER THINGS YOU CAN DO THROUGH PROJECT OWL

Project Owl is an ambitious five-year programme of work, through which the BTO aims to improve our knowledge and understanding of our breeding owl species.

There are other surveys and studies with which you can help; you can also learn more about owls and what you can do to help them (including putting up a nest box). To find out more please visit www.bto.org/project-owl

