

Example Site Polygon

Compiled on 20 January 2022



SUMMARY

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|-------------------|---|
| Background | The BTO Data Report collates and analyses comprehensive (2007–2011) and contemporary (2018–2022) bird data relating to the grid squares spanned by the site: five 1-km squares, three tetrads and three 10-km squares. For contextual analyses, data from these relevant squares are related to equivalent data from one vice-county, one county, one region, one country and the UK to assess species' importance in the vicinity of the site to help inform delivery of habitat mitigation, enhancement and biodiversity net gain. |
| Data used | Coverage of relevant squares spanned by the site from 2007–2011 is complete at the 10-km resolution and there is good coverage of the site by timed visits and very good coverage from casual recording in the breeding season (good and very good respectively in winter). Contemporary information for the period 2018–2022 is available from BirdTrack for 100% of tetrads (100% of 10-km squares) in the breeding season and from one BBS square. |
| Results | <p>During 2007–2011, 109 species with breeding evidence and 116 species in winter were recorded in the vicinity of the site at various spatial scales. Breeding season figures include 11 Schedule 1 species, eight Annex 1 species and 26 BoCC Red list species.</p> <p>During the breeding seasons of 2018–2022, 140 species were recorded in the vicinity of the site at various spatial scales. These included 21 Schedule 1 species, 18 Annex 1 species and 32 BoCC Red list species.</p> <p>In a regional context, the site's 10-km squares accounted for up to 17% of regional population size. Forty-four species were notable in at least one region or season. In a county context, the site's 10-km squares accounted for up to 92% of county population size. Sixty species were notable in at least one county or season. In a vice-county context, the site's 10-km squares accounted for up to 100% of vice-county population size. Forty-two species were notable in at least one vice-county or season. Full details of notable species and those showing more positive population trends in the vicinity of the site compared to the wider context are given in the Report.</p> |

1. INTRODUCTION

The purpose of the BTO Data Report is to provide information on bird species associated with potential development sites at a range of spatial scales to inform desk studies for ecological impact assessments. The Report uses BTO's long-term ornithological datasets, providing [high quality](#) comprehensive and contemporary information. BTO is grateful to the volunteers who collected all the data, and to the funders and scheme partners, who are listed in Section 3 under the relevant data sources.

The species list in this report can guide the need for detailed field surveys in conjunction with [Bird Survey Guidelines](#) advice. This Report highlights the legal and conservation status assigned to each species in the relevant country. Beyond simple species lists, BTO data are uniquely able to provide context to help quantify the importance of a site and its surroundings in conservation terms. This includes assessments of the percentage of county, regional and national geographic range and population size associated with the site, plus recent population changes, offering the potential to highlight priorities for delivering habitat mitigation, enhancement and biodiversity net gain.

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2. SITE, SQUARES, REGIONS AND FEATURES

2.1 Relevant grid squares

Systematic bird recording in Britain and Ireland typically involves the collection of records for 1-km, 2-km ('tetrad') or 10-km squares, or using the boundaries of user-defined sites, nature reserves and other 'popular places'. Rarely can records be definitively attributed within the boundary of proposed development sites, especially small ones.

Unless otherwise stated, all species detailed in the BTO Data Report concern species present in grid squares *intersected* by the site boundary, rather than species that are definitively *within* the site boundary. Grid squares with at least 1ha overlapping the site are referred to as 'relevant' squares.

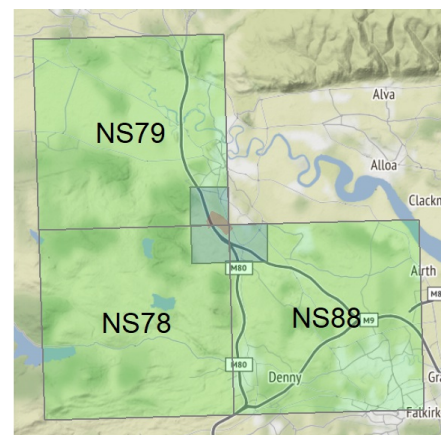
For example 'relevant tetrads' are all 2-km squares with at least 1ha overlapping the site. Data are summarised at the finest spatial scale possible, subject to the size of the site and the availability and spatial precision of BTO datasets in the vicinity of the site.

The number of relevant 1-km squares, tetrads and 10-km squares for the site are listed below. The map above shows the site in relation to relevant tetrads and relevant 10-km squares (for an equivalent map for 1-km squares, and for full lists of relevant 1-km squares, tetrads and 10-km squares, see Appendix 1).

- five relevant 1-km squares
- three relevant tetrads
- three relevant 10-km squares

For reasons of confidentiality the precise locations of certain rare breeding and wintering birds (typically those reported on by the [Rare Breeding Birds Panel](#)) cannot be revealed precisely in BTO Data Reports. For these species we follow the treatment introduced by *Bird Atlas 2007–11* where records were summarised for 20-km and 50-km squares. If any such rare breeding species have been recorded in the same 20-km or 50-km squares as the site, lists and maps of relevant 20-km and/or 50-km squares are included in Appendix 1.

All results in the BTO Data Report, especially those for larger grid resolutions, should be interpreted with respect to the habitats present on the site as some species listed may not occur within the site boundary.



2.2 Relevant county, regional and national contexts

The BTO Data Report contains contextual 'site importance' analyses that aim to highlight species for which the site and its relevant grid squares are important in local, regional, national and UK contexts. For example, does the site and its surroundings support a regionally significant population of a protected species?

National context concerns the site relative to the country it falls within. In addition to the UK (here combined with the Isle of Man and Channel Islands), the site also falls within one country: *Scotland*.

Regional context concerns the site relative to the regions it falls within. For sites in Scotland, regions are based on NUTS (Nomenclature of territorial units for statistics) level 2 regions, modified to split Highlands and Islands into separate mainland and island regions. The following regions are relevant for this site: *Eastern Scotland*.

County context concerns the site relative to counties. The following counties are relevant for this site: *Stirling and Falkirk*.

Vice-county context concerns the site relative to vice-counties. For sites in Great Britain, the Report uses Watsonian Vice-counties. The following vice-counties are relevant for this site: *Stirlingshire*.

Maps of all these areas can be found in Appendix 1. The grid squares associated with each of these area are used to determine overall range size and abundance at county, regional and national scales with which range size and abundance for the site's relevant grid squares can be calculated. Note that some individual grid squares may be associated with more than one geographical area. For more information see Section 5.

2.3 Relevant features

The BTO Data Report summarises species occurrence and abundance for species of conservation and statutory importance. In addition to the lists of species important across the UK, certain lists are of relevance in the UK's devolved administrations. The table below lists all species lists relevant for UK, Isle of Man and Channel Islands and Scotland. Section 4 summarises the number of species recorded at or around the site for each of these feature lists.

| Feature | Description |
|-----------------------------|--|
| Schedule 1 UK | Species listed on Schedule 1 of the Wildlife and Countryside Act 1981 |
| BoCC Red | Species on the Red list according to Birds of Conservation Concern 5 (Stanbury et al. 2021) |
| BoCC Amber | Species on the Amber list, according to Birds of Conservation Concern 5 (Stanbury et al. 2021) |
| Annex 1 | Species on Annex 1 of the EU Birds Directive |
| IUCN2 Critically Endangered | Species listed as Critically endangered in Great Britain (Stanbury et al. 2021) |
| IUCN2 Endangered | Species listed as Endangered in Great Britain (Stanbury et al. 2021) |
| IUCN2 Near Threatened | Species listed as Near Threatened in Great Britain (Stanbury et al. 2021) |
| IUCN2 Vulnerable | Species listed as Vulnerable in Great Britain (Stanbury et al. 2021) |
| RBBP | Rare and scarce species considered by the Rare Breeding Birds Panel |
| Schedule 1A Scotland | Species listed on Schedule 1A of the Wildlife and Countryside Act (Scotland only) |
| Schedule A1 Scotland | Species listed on Schedule A1 of the Wildlife and Countryside Act (Scotland only) |
| Scottish Biodiversity List | Species listed on the Scottish Biodiversity List (Scotland only) |

3. DATA SOURCES AND COVERAGE

The BTO Data Report uses comprehensive atlas distribution data from 2007–11 to give a baseline of high-quality information about species status at and around the site and in the wider context. This is supplemented by the latest records from current schemes, including BirdTrack and BBS. The report considers **269 species** that regularly occur in Britain and Ireland. These include **221 breeding species** and **226 wintering species**. The report includes BOU Category C established non-native species but excludes exotic non-native species (i.e. those without self-sustaining populations). Breeding species are defined as those that were recorded with confirmed breeding evidence in at least one 10-km square in Britain or Ireland in *Bird Atlas 2007–11*. Wintering species are defined as those recorded in at least fifty 10-km squares in *Bird Atlas 2007–11*, plus six rare residents that the 50-square rule excluded (e.g. Gull Bunting). Species on statutory and conservation status lists, such as Schedule 1, Birds of Conservation Concern 5, or Section 7 (Wales) are highlighted. Some lists consider subspecies or populations (e.g. Greenland White-fronted Goose, Hebridean Song Thrush) for which BTO data are not ideally suited. We therefore include the parent species in these analyses to ensure appropriate warnings are raised and dedicated surveys may be required.

Systematic bird recording often involves the assignment of ‘breeding evidence’ to records. Breeding evidence is hierarchical, having three levels: possible breeding, probable breeding and confirmed breeding. These are directly inferred from field observations and indicate the certainty that can be ascribed to the record that breeding is taking place at a location. For example, a bird singing in suitable territory is assigned possible breeding evidence, a bird carrying nesting material is assigned probable breeding evidence, whereas recently fledged young amounts to confirmed breeding evidence. Lack of breeding evidence (i.e. simple presence) can reflect either that the observer did not witness appropriate behaviours indicative of breeding, or that submission of breeding evidence was not mandatory for that particular data source.

Lack of breeding evidence in the data should not be assumed to indicate lack of breeding.

See below for details about each dataset and an assessment of the quantity of data relating to the site and its relevant grid squares.

3.1 Comprehensive species assessment 2007–2011

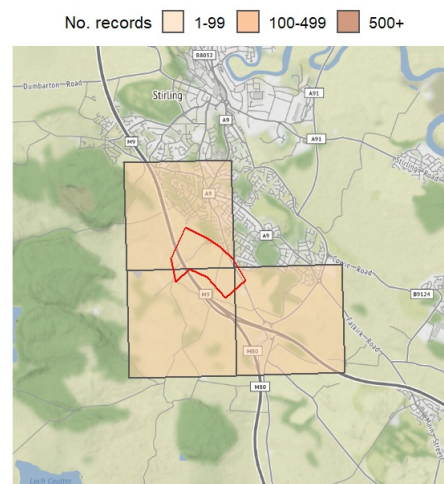


Bird Atlas 2007–11 (BTO, BirdWatch Ireland and the Scottish Ornithologists' Club) provides data at two resolutions: complete 10-km distribution datasets and sample 2-km distribution and relative abundance datasets. Although the Bird Atlas data are now 11 years old, they still provide the most recent and comprehensive assessment of bird distributions available. **All three relevant 10-km squares** that the site spans will have been surveyed in winter and the breeding season to provide 10-km resolution distribution information. Unstructured data (i.e. casual records) at tetrad resolution were provided for **three relevant tetrads** in the breeding season and for **three relevant tetrads** in winter. The total numbers of records submitted across this set of tetrads in the breeding season and winter were **139 records** and **25 records** respectively.

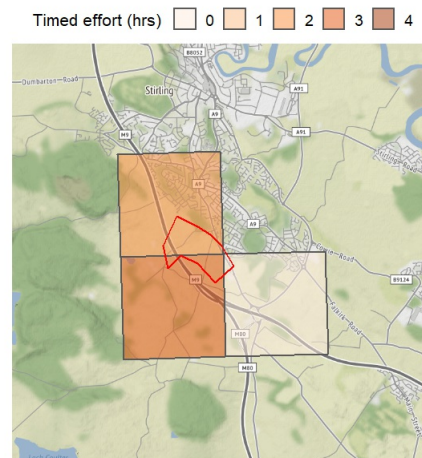
Additionally, at least 32% of tetrads in each 10-km square received timed visits, amounting to structured data for 50089 tetrads across Britain and Ireland. Of the three relevant tetrads that the site spans, **two** (66.7%) received Timed Tetrad Visits in the breeding season (5 hours of recording effort). Similarly, **two tetrads** (66.7%) were visited in winter (7 hours).

Data quality control: All records have been manually verified prior to use.

Distribution of casual records (breeding)



Distribution of timed effort (breeding)



3.2 Contemporary species assessment 2018–2022

The current species assessment is based on the following data sources.

3.2.1 Breeding Bird Survey



The UK *Breeding Bird Survey* (BBS hereafter; BTO, JNCC, RSPB) is an annual survey of over 4000 randomly selected 1-km squares across the UK. Each square is surveyed twice per breeding season, providing up to date records of bird occurrence in this c.3% sample of the UK. The BBS does not require observers to provide breeding evidence information. Consequently, all records relate to presence information; *it should not be assumed that lack of breeding evidence means species were not breeding at or near the site*. This Report queries data from the 4900 1-km squares surveyed for the BBS during 2017–2020. Only **one** of the relevant 1-km squares was also a BBS square (NS7990). That square was surveyed for three years, most recently in **2019**.

Data quality control: All records have been manually verified prior to use.

3.2.2 BirdTrack



BirdTrack (BTO, RSPB, BirdWatch Ireland, Scottish Ornithologists' Club and Welsh Ornithological Society) provides information on recent sightings of birds throughout Britain and Ireland. Unlike *Bird Atlas*, which has a structured component ensuring complete coverage of 10-km squares, *BirdTrack* is unstructured and coverage is strongly associated with the distribution and birdwatching preferences of observers. The consequent variation in recording effort means that for some areas there be less information to generate a report. A further difference from *Bird Atlas* is that observers are not required to provide breeding evidence information. Consequently, some searches may yield only presence information; it should not be assumed that lack of breeding evidence means species were not breeding at or near the site. Observers are free to birdwatch where they choose, and can provide records with varying levels of spatial precision, from pin-pointed records, to large polygons that may span multiple grid squares. The assessment includes data for the breeding season (March–July inclusive) and non-breeding season (August–February inclusive) for the last five years and is summarised with respect to the relevant grid squares, summarising records to the finest spatial precision that the records permit.

BirdTrack data were available for **100%** of the site's relevant tetrads in the breeding season (100% of 10-km squares), including data from **2021**. Data were available for **100%** of the site's relevant tetrads in winter (100% of 10-km squares), including data from **2021**.

Data quality control: Observers are warned of 'threshold breaking' records at the point of data entry (unusual place or date for a species; unusually high count) and given the opportunity to correct mistakes. Further manual verification occurs but as BirdTrack data are 'live', the verification status of individual records varies. Rejected records and any in an active state of query are excluded from the Report.

4. SPECIES LISTS

4.1 Species assessment 2007–2011

This section summarises comprehensive *Bird Atlas 2007–11* distribution data for the three relevant tetrads and three relevant 10-km squares the site spans. It also considers data from the two relevant 20-km squares and one relevant 50-km square for any confidential RBBP species records.

4.1.1 Breeding season

Bird Atlas 2007–11 indicate **109 species** with breeding evidence in the vicinity of the site at a range of spatial resolutions (Table 1). At the highest level of spatial resolution achievable with Bird Atlas data, 48 species were recorded with breeding evidence in the site's relevant tetrads. No confidential species were recorded with breeding evidence in any of the site's relevant 20-km or 50-km squares. See Appendix 3 for the full list of species with breeding evidence recorded in the vicinity of the site.

Table 1. Numbers of species in the breeding season recorded during 2007–11 at different spatial resolutions relative to the site. Rows give figures for all species, and according to various lists of important features. Columns indicate status in relevant grid squares of different sizes.

| Species category | 2-km | 10-km | 20-km | 50-km |
|-----------------------------|------|-------|-------|-------|
| All species | 48 | 61 | 0 | 0 |
| Annex 1 | 0 | 8 | 0 | 0 |
| BoCC Amber | 12 | 22 | 0 | 0 |
| BoCC Red | 11 | 15 | 0 | 0 |
| IUCN2 Critically Endangered | 0 | 0 | 0 | 0 |
| IUCN2 Endangered | 4 | 7 | 0 | 0 |
| IUCN2 Near Threatened | 4 | 10 | 0 | 0 |
| IUCN2 Vulnerable | 8 | 13 | 0 | 0 |
| RBBP | 0 | 9 | 0 | 0 |
| Schedule 1 UK | 0 | 11 | 0 | 0 |
| Schedule 1A Scotland | 0 | 1 | 0 | 0 |
| Schedule A1 Scotland | 0 | 0 | 0 | 0 |
| Scottish Biodiversity List | 12 | 24 | 0 | 0 |

4.1.2 Winter

Bird Atlas 2007–11 indicates **116 species** were recorded in the vicinity of the site in winter at a range of spatial resolutions (Table 2). At the highest level of spatial resolution achievable with Bird Atlas data, 53 species were recorded in winter in the site's relevant tetrads. No confidential species were recorded in winter in any of the site's relevant 20-km or 50-km squares. See Appendix 3 for the full list of species recorded in the vicinity of the site.

Table 2. Numbers of species in winter during 2007–11 at different spatial resolutions relative to the site. Rows give figures for all species, and according to various lists of important features. Columns indicate status in relevant grid squares of different sizes.

| Species category | 2-km | 10-km | 20-km | 50-km |
|-----------------------------|------|-------|-------|-------|
| All species | 53 | 63 | 0 | 0 |
| Annex 1 | 2 | 11 | 0 | 0 |
| BoCC Amber | 16 | 23 | 0 | 0 |
| BoCC Red | 11 | 15 | 0 | 0 |
| IUCN2 Critically Endangered | 2 | 2 | 0 | 0 |
| IUCN2 Endangered | 3 | 13 | 0 | 0 |
| IUCN2 Near Threatened | 3 | 6 | 0 | 0 |
| IUCN2 Vulnerable | 10 | 12 | 0 | 0 |
| RBBP | 4 | 20 | 0 | 0 |
| Schedule 1 UK | 6 | 13 | 0 | 0 |
| Schedule 1A Scotland | 1 | 2 | 0 | 0 |
| Schedule A1 Scotland | 0 | 1 | 0 | 0 |
| Scottish Biodiversity List | 20 | 21 | 0 | 0 |

4.2 Species assessment 2018–2022

4.2.1 Breeding season

The assessment of current species associated with the site in the breeding season is based on BBS and BirdTrack. This information summarises species with and without breeding evidence as (unlike Bird Atlas data) these data sources do not require evidence to be submitted. These sources indicate **140 species** recorded in the vicinity of the site in the breeding season at a range of spatial resolutions (Table 3). At the highest level of spatial resolution achievable with these data, 34 species were recorded in the same 1-km square(s) as the site. Some BirdTrack sites spanned 10-km square boundaries; any species associated with these BirdTrack sites and not present at a finer resolution are summarised in the '>10-km' column. Particular care should be taken with such records as the species could have been recorded some distance from the site. See Appendix 4 for the full list of species recorded in the vicinity of the site during 2018–2022.

Table 3. Numbers of species in the breeding season during 2018–2022 at different spatial resolutions relative to the site. Rows give figures for all species, and according to various lists of important features. Columns indicate status in relevant grid squares of different sizes.

| Species category | 1-km | 2-km | 10-km | >10-km |
|-----------------------------|------|------|-------|--------|
| All species | 34 | 41 | 55 | 10 |
| Annex 1 | 0 | 1 | 12 | 5 |
| BoCC Amber | 10 | 14 | 21 | 5 |
| BoCC Red | 7 | 6 | 16 | 3 |
| IUCN2 Critically Endangered | 0 | 0 | 4 | 0 |
| IUCN2 Endangered | 3 | 1 | 10 | 2 |
| IUCN2 Near Threatened | 2 | 7 | 6 | 3 |
| IUCN2 Vulnerable | 5 | 9 | 9 | 2 |
| RBBP | 0 | 2 | 20 | 5 |
| Schedule 1 UK | 0 | 2 | 15 | 4 |
| Schedule 1A Scotland | 0 | 0 | 2 | 0 |
| Schedule A1 Scotland | 0 | 0 | 0 | 0 |
| Scottish Biodiversity List | 10 | 8 | 25 | 7 |

4.2.2 Non-breeding season

The assessment of current species associated with the site is based on BirdTrack and indicate **142 species** recorded in the vicinity of the site in the non-breeding season at a range of spatial resolutions (Table 4). Some BirdTrack sites spanned 10-km square boundaries; any species associated with these BirdTrack sites and not present at a finer resolution are summarised in the '>10-km' column. Particular care should be taken with such records as the species could have been recorded some distance from the site. See Appendix 4 for the full list of species recorded in the vicinity of the site during 2018–2022.

Table 4. Numbers of species in the non-breeding season during 2018–2022 at different spatial resolutions relative to the site. Rows give figures for all species, and according to various lists of important features. Columns indicate status in relevant grid squares of different sizes.

| Species category | 1-km | 2-km | 10-km | >10-km |
|-----------------------------|------|------|-------|--------|
| All species | 0 | 59 | 71 | 12 |
| Annex 1 | 0 | 0 | 16 | 3 |
| BoCC Amber | 0 | 18 | 28 | 6 |
| BoCC Red | 0 | 9 | 20 | 3 |
| IUCN2 Critically Endangered | 0 | 2 | 3 | 1 |
| IUCN2 Endangered | 0 | 2 | 17 | 3 |
| IUCN2 Near Threatened | 0 | 5 | 8 | 0 |
| IUCN2 Vulnerable | 0 | 12 | 11 | 4 |
| RBBP | 0 | 4 | 24 | 5 |
| Schedule 1 UK | 0 | 3 | 18 | 1 |
| Schedule 1A Scotland | 0 | 0 | 3 | 0 |
| Schedule A1 Scotland | 0 | 0 | 1 | 0 |
| Scottish Biodiversity List | 0 | 13 | 32 | 4 |

5. SITE IMPORTANCE

A site may be important if it supports a high proportion of a species' local, regional or national population, or if its population trends are more positive at the site compared to elsewhere. Whilst data are not available at sufficiently fine scales to assess the site itself (see Section 2), here we used *Bird Atlas 2007–11* distribution and relative abundance data for relevant 10-km squares to assess the area in which the site falls.

For each species we express its range and population size in the vicinity of the site relative to the total range size and population size in different geographic contexts, ranging from vice-counties and counties, through regions, to countries. This requires determining how many of the relevant 10-km squares spanned by the site are occupied (e.g. one) and how many 10-km squares in the larger region are occupied (e.g. 20); in this case the site and its vicinity account for 5% ($= 1/20$) of the species' range in the region. As large sites will tend to account for a higher percentage of range than small sites, such figures need to be bench-marked to allow comparability across sites. This requires knowing how many of the site's relevant 10-km squares fall in the region (e.g. one) and the total number of 10-km squares in the region (e.g. 100); in this case the site's 'percentage size' is 1% ($= 1/100$). We define **Notable species** as those for which the percentage range is at least twice the site's percentage size. In the above examples the percentage range (5%) is more than double the site's percentage size (1%) so the species would be highlighted as Notable. The exception to this rule is at the scale of United Kingdom where we mark species as **Notable** if the site and vicinity account for 2% or more of the species' UK range.

Distribution data are available for all species for the above analysis. However, distribution data ignore the fact that some species vary widely in abundance within their range. Therefore, to supplement the results above, we undertake a similar exercise using relative abundance data which can help to highlight species for which the site and its vicinity is a particular hot-spot of locally, regionally or nationally high density. *Bird Atlas 2007–11* data give a relative density measure for each terrestrial species in each 10-km square (**colonial seabirds are excluded**). These can be summarised in the same way as distribution data to estimate the percentage of the region's population size found at the site and its vicinity. Calculations of percentages and derivation of Notable species are as above.

Lastly, breeding season relative abundance data are available for two periods, 1988–91 and 2008–11, allowing for an assessment of relative abundance change for terrestrial bird species over this interval for the site and its vicinity (**colonial seabirds are excluded**). By comparing such values with corresponding change measures for the wider region we can identify species for which the site and its vicinity has had more positive population trends (i.e. increasing more than elsewhere, or declining less). This may indicate that the 10-km squares in which the site falls are an important refuge for these species in a local, regional or national context. When interpreted alongside the species lists in Section 4 and the result of any commissioned field surveys, these results can help to identify species for which the site may be particularly important. For very small sites spanning only a single 10-km square these results should be interpreted with caution.

It is important to remember that all these calculations use 10-km resolution data so relate to the site and its vicinity, not strictly to the site alone.

5.1 Country: UK, Isle of Man and Channel Islands

Overall, three of the 10-km squares that include the site fall in UK, Isle of Man and Channel Islands, accounting for 0.099% of 10-km squares in UK, Isle of Man and Channel Islands. According to *Bird Atlas* data, these squares support between 0.1% and 0.7% of the geographic range in UK, Isle of Man and Channel Islands of all the species considered (breeding and winter combined). In terms of abundance, these squares represent between 0% and 3% of the total population size in UK, Isle of Man and Channel Islands. In the context of the United Kingdom, **notable species** are defined as those for which the site's relevant 10-km squares account for at least 2% of geographic range in the UK. If any species qualify they are listed below, with those on the [BoCC Red List](#) and [BoCC Amber List](#) highlighted in corresponding colour:

- Breeding range, zero species:
- Winter range, zero species:
- Breeding abundance, zero species:
- Winter abundance, one species: Waxwing

Between 1988–91 and 2008–11, there were 69 species for which relative abundance increased more (or decreased less) at/near the site compared to the relative abundance changes apparent across the rest of UK, Isle of Man and Channel Islands. The ten species with the most positive difference in trend between site and region are listed below and all species can be seen in Figure 5.1 in Appendix 5.

- [Mallard](#), [Lapwing](#), Buzzard, Chiffchaff, [Sedge Warbler](#), Garden Warbler, [Wren](#), [Song Thrush](#), [Bullfinch](#), [Reed Bunting](#)

There were 24 species for which the opposite was the case, i.e. that they were declining more (or increasing less) at/near the site compared to the rest of UK, Isle of Man and Channel Islands. The ten species with the most negative difference in trend between site and region were:

- [Greylag Goose](#), [Oystercatcher](#), [Sparrowhawk](#), Green Woodpecker, Peregrine, Carrion Crow, [Skylark](#), [House Sparrow](#), [Meadow Pipit](#), [Linnet](#)

5.2 Country: Scotland

Overall, three of the 10-km squares that include the site fall in Scotland, accounting for 0.27% of 10-km squares in Scotland. According to *Bird Atlas* data, these squares support between 0.2% and 5.4% of the geographic range in Scotland of all the species considered (breeding and winter combined). In terms of abundance, these squares represent between 0% and 5.6% of the total population size in Scotland. **Notable species** for Scotland are listed below, with those on the [BoCC Red List](#) and [BoCC Amber List](#) highlighted in corresponding colour:

- Breeding range, 28 species: Canada Goose, Mute Swan, [Shelduck](#), [Grey Partridge](#), Red-legged Partridge, [Swift](#), [Stock Dove](#), [Moorhen](#), Coot, Little Grebe, Great Crested Grebe, [Ringed Plover](#), Little Ringed Plover, [Woodcock](#), [Osprey](#), Goshawk, Red Kite, Barn Owl, Kingfisher, Green Woodpecker, Jay, Magpie, [Rook](#), Garden Warbler, Nuthatch, [Redstart](#), [Tree Sparrow](#), [Yellowhammer](#)
- Winter range, 36 species: Canada Goose, [Barnacle Goose](#), [White-fronted Goose](#), Mute Swan, [Shelduck](#), [Gadwall](#), [Pochard](#), Tufted Duck, [Grey Partridge](#), [Stock Dove](#), Water Rail, [Moorhen](#), Coot, Little Grebe, Great Crested Grebe, [Black-tailed Godwit](#), Jack Snipe, [Green Sandpiper](#), [Greenshank](#), [Mediterranean Gull](#), [Lesser Black-backed Gull](#), Goshawk, Red Kite, Long-eared Owl, [Short-eared Owl](#), Kingfisher, Green Woodpecker, Jay, Magpie, Chiffchaff, Nuthatch, [Tree Sparrow](#), [Grey Wagtail](#), [Lesser Redpoll](#), Common/Lesser Redpoll, [Yellowhammer](#)
- Breeding abundance, 33 species: Goosander, [Grey Partridge](#), [Swift](#), [Stock Dove](#), [Woodpigeon](#), Collared Dove, [Moorhen](#), Great Crested Grebe, Grey Heron, [Osprey](#), Kingfisher, Green Woodpecker, Jay, Magpie, Jackdaw, Carrion Crow, Blue Tit, Great Tit, Swallow, [House Martin](#), Long-tailed Tit, Chiffchaff, Blackcap, Garden Warbler, [Whitethroat](#), [Wren](#), Blackbird, [Tree Sparrow](#), [Dunnock](#), [Bullfinch](#), Goldfinch, [Yellowhammer](#), [Reed Bunting](#)
- Winter abundance, 39 species: [Pink-footed Goose](#), [Mallard](#), Tufted Duck, Goosander, Red Grouse, [Black Grouse](#), [Grey Partridge](#), [Stock Dove](#), [Woodpigeon](#), Water Rail, Little Grebe, [Black-headed Gull](#), [Herring Gull](#), [Lesser Black-backed Gull](#), [Sparrowhawk](#), [Tawny Owl](#), Kingfisher, Great Spotted Woodpecker, Magpie, Carrion Crow, Waxwing, Blue Tit, Great Tit, Long-tailed Tit, Goldcrest, [Wren](#), [Mistle Thrush](#), Blackbird, [Fieldfare](#), Robin, [Tree Sparrow](#), [Dunnock](#), [Grey Wagtail](#), Pied/White Wagtail, [Bullfinch](#), Goldfinch, Siskin, [Yellowhammer](#), [Reed Bunting](#)

Between 1988–91 and 2008–11, there were 68 species for which relative abundance increased more (or decreased less) at/near the site compared to the relative abundance changes apparent across the rest of Scotland. The ten species with the most positive difference in trend between site and region are listed below and all species can be seen in Figure 5.2 in Appendix 5.

- Mallard, Lapwing, Curlew, Buzzard, Chiffchaff, Sedge Warbler, Wren, Song Thrush, Bullfinch, Reed Bunting

There were 25 species for which the opposite was the case, i.e. that they were declining more (or increasing less) at/near the site compared to the rest of Scotland. The ten species with the most negative difference in trend between site and region were:

- Greylag Goose, Cuckoo, Sparrowhawk, Peregrine, Magpie, Skylark, House Sparrow, Meadow Pipit, Linnet, Lesser Redpoll

5.3 Region: Eastern Scotland

Overall, three of the 10-km squares that include the site fall in Eastern Scotland, accounting for 1.6% of 10-km squares in Eastern Scotland. According to *Bird Atlas* data, these squares support between 1% and 11.1% of the geographic range in Eastern Scotland of all the species considered (breeding and winter combined). In terms of abundance, these squares represent between 0% and 16.7% of the total population size in Eastern Scotland. **Notable species** for Eastern Scotland are listed below, with those on the BoCC Red List and BoCC Amber List highlighted in corresponding colour:

- Breeding range, 10 species: Canada Goose, Shelduck, Coot, Great Crested Grebe, Ringed Plover, Little Ringed Plover, Woodcock, Herring Gull, Red-throated Diver, Red Kite
- Winter range, 17 species: Canada Goose, Barnacle Goose, Shelduck, Pochard, Water Rail, Great Crested Grebe, Black-tailed Godwit, Jack Snipe, Green Sandpiper, Redshank, Greenshank, Kittiwake, Mediterranean Gull, Goshawk, Red Kite, Long-eared Owl, Chiffchaff
- Breeding abundance, 11 species: Greylag Goose, Goosander, Swift, Great Crested Grebe, Grey Heron, Osprey, Kingfisher, Magpie, Starling, Goldfinch, Reed Bunting
- Winter abundance, 18 species: Greylag Goose, Pink-footed Goose, Black Grouse, Stock Dove, Water Rail, Herring Gull, Lesser Black-backed Gull, Kingfisher, Magpie, Waxwing, Goldcrest, Wren, Starling, Pied/White Wagtail, Bullfinch, Siskin, Snow Bunting, Reed Bunting

Between 1988–91 and 2008–11, there were 69 species for which relative abundance increased more (or decreased less) at/near the site compared to the relative abundance changes apparent across the rest of Eastern Scotland. The ten species with the most positive difference in trend between site and region are listed below and all species can be seen in Figure 5.3 in Appendix 5.

- Mallard, Lapwing, Curlew, Redshank, Great Tit, Sedge Warbler, Wren, Bullfinch, Goldfinch, Reed Bunting

There were 24 species for which the opposite was the case, i.e. that they were declining more (or increasing less) at/near the site compared to the rest of Eastern Scotland. The ten species with the most negative difference in trend between site and region were:

- Red-legged Partridge, Cuckoo, Sparrowhawk, Peregrine, Magpie, Skylark, House Sparrow, Dunnock, Meadow Pipit, Linnet

5.4 County: Stirling and Falkirk

Overall, three of the 10-km squares that include the site fall in Stirling and Falkirk, accounting for 6.7% of 10-km squares in Stirling and Falkirk. According to *Bird Atlas* data, these squares support between 3% and 50% of the geographic range in Stirling and Falkirk of all the species considered (breeding and winter combined). In terms of abundance, these squares represent between 0.2% and 91.9% of the total population size in Stirling and Falkirk. **Notable species** for Stirling and Falkirk are listed below, with those on the BoCC Red List and BoCC Amber List highlighted in corresponding colour:

- Breeding range, 13 species: Shelduck, Grey Partridge, Red-legged Partridge, Rock Dove, Coot, Great Crested Grebe, Ringed Plover, Little Ringed Plover, Red-throated Diver, Goshawk, Green Woodpecker, Merlin, Tree Sparrow
- Winter range, 18 species: Shelduck, Grey Partridge, Stock Dove, Water Rail, Golden Plover, Curlew, Black-

tailed Godwit, Jack Snipe, Green Sandpiper, Redshank, Greenshank, Kittiwake, Mediterranean Gull, Goshawk, Long-eared Owl, Chiffchaff, Nuthatch, Common/Lesser Redpoll

- Breeding abundance, 22 species: Greylag Goose, Red Grouse, Grey Partridge, Swift, Stock Dove, Collared Dove, Moorhen, Great Crested Grebe, Ringed Plover, Grey Heron, Osprey, Kingfisher, Jackdaw, Rook, Chiffchaff, Starling, Blackbird, Tree Sparrow, House Sparrow, Greenfinch, Goldfinch, Yellowhammer
- Winter abundance, 30 species: Greylag Goose, Pink-footed Goose, Long-tailed Duck, Red Grouse, Grey Partridge, Rock Dove, Stock Dove, Woodpigeon, Water Rail, Golden Plover, Herring Gull, Lesser Black-backed Gull, Cormorant, Sparrowhawk, Tawny Owl, Kingfisher, Rook, Waxwing, Wren, Starling, Mistle Thrush, Fieldfare, Tree Sparrow, House Sparrow, Pied/White Wagtail, Common/Lesser Redpoll, Siskin, Snow Bunting, Yellowhammer, Reed Bunting

Between 1988–91 and 2008–11, there were 71 species for which relative abundance increased more (or decreased less) at/near the site compared to the relative abundance changes apparent across the rest of Stirling and Falkirk. The ten species with the most positive difference in trend between site and region are listed below and all species can be seen in Figure 5.4 in Appendix 5.

- Mallard, Red Grouse, Lapwing, Curlew, Buzzard, Great Tit, Chiffchaff, Song Thrush, Bullfinch, Reed Bunting

There were 22 species for which the opposite was the case, i.e. that they were declining more (or increasing less) at/near the site compared to the rest of Stirling and Falkirk. The ten species with the most negative difference in trend between site and region were:

- Oystercatcher, Sparrowhawk, Magpie, Skylark, Grasshopper Warbler, Whinchat, House Sparrow, Meadow Pipit, Linnet, Lesser Redpoll

5.5 Vice-county: Stirlingshire

Overall, three of the 10-km squares that include the site fall in Stirlingshire, accounting for 12% of 10-km squares in Stirlingshire. According to *Bird Atlas* data, these squares support between 7.1% and 66.7% of the geographic range in Stirlingshire of all the species considered (breeding and winter combined). In terms of abundance, these squares represent between 0.2% and 100% of the total population size in Stirlingshire. **Notable species** for Stirlingshire are listed below, with those on the BoCC Red List and BoCC Amber List highlighted in corresponding colour:

- Breeding range, 10 species: Shelduck, Grey Partridge, Red-legged Partridge, Ringed Plover, Little Ringed Plover, Red-throated Diver, Goshawk, Red Kite, Green Woodpecker, Merlin
- Winter range, 14 species: Grey Partridge, Red-legged Partridge, Golden Plover, Black-tailed Godwit, Green Sandpiper, Redshank, Greenshank, Kittiwake, Mediterranean Gull, Goshawk, Red Kite, Long-eared Owl, Chiffchaff, Nuthatch
- Breeding abundance, nine species: Red Grouse, Red-legged Partridge, Ringed Plover, Grey Heron, Osprey, Kingfisher, Stonechat, Tree Sparrow, Yellowhammer
- Winter abundance, 20 species: Long-tailed Duck, Red Grouse, Black Grouse, Grey Partridge, Rock Dove, Woodpigeon, Golden Plover, Herring Gull, Tawny Owl, Waxwing, Mistle Thrush, Fieldfare, Tree Sparrow, Pied/White Wagtail, Bullfinch, Common/Lesser Redpoll, Siskin, Snow Bunting, Yellowhammer, Reed Bunting

Between 1988–91 and 2008–11, there were 68 species for which relative abundance increased more (or decreased less) at/near the site compared to the relative abundance changes apparent across the rest of Stirlingshire. The ten species with the most positive difference in trend between site and region are listed below and all species can be seen in Figure 5.5 in Appendix 5.

- Mallard, Curlew, Redshank, Great Tit, Wood Warbler, Chiffchaff, Wren, Song Thrush, Bullfinch, Reed Bunting

There were 24 species for which the opposite was the case, i.e. that they were declining more (or increasing less) at/near the site compared to the rest of Stirlingshire. The ten species with the most negative difference in trend between site and region were:

- Oystercatcher, Sparrowhawk, Magpie, Skylark, House Martin, Grasshopper Warbler, House Sparrow, Dunnock, Meadow Pipit, Linnet

APPENDICES

Appendix 1. Contextual maps

Maps of the site with reference to geographical context areas at different scales, and for different sized grids used for data extraction. Note that for some of the larger context areas the site may be too small to see on the map.

Country

Country = UK, Isle of Man and Channel Islands, Scotland



Region

Region = Eastern Scotland



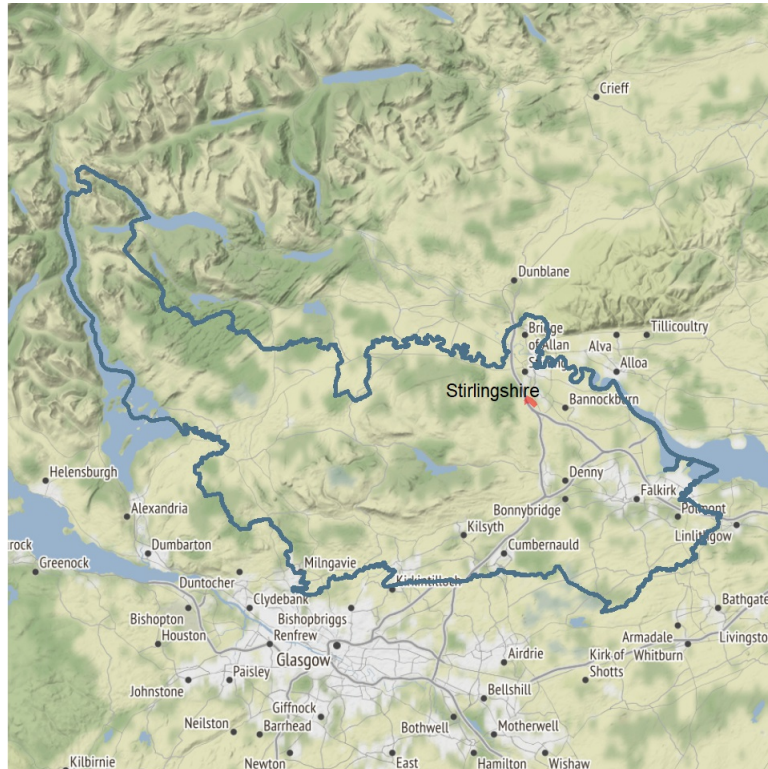
County

County = Stirling and Falkirk



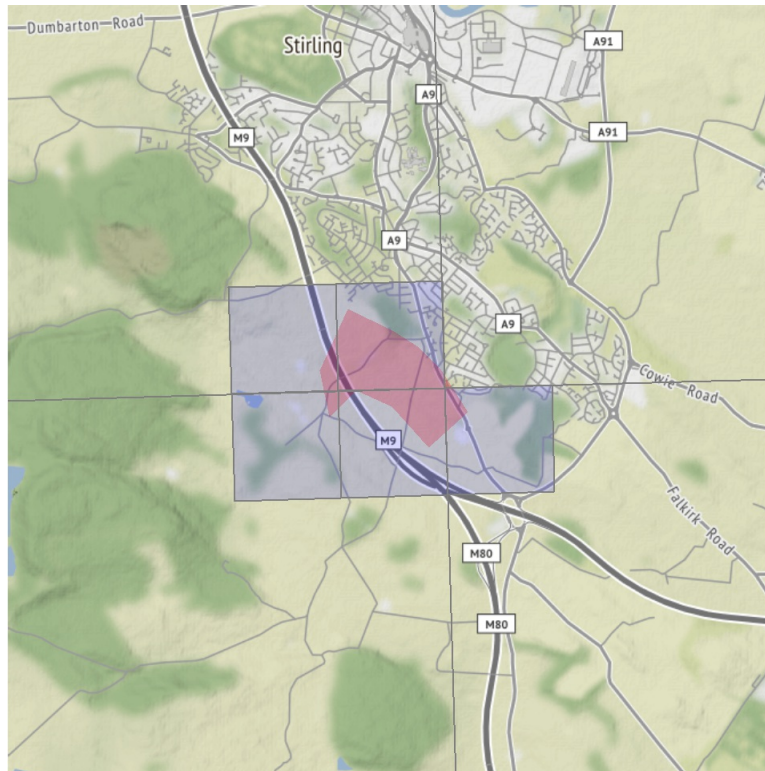
Vice-county

Vice-county = Stirlingshire



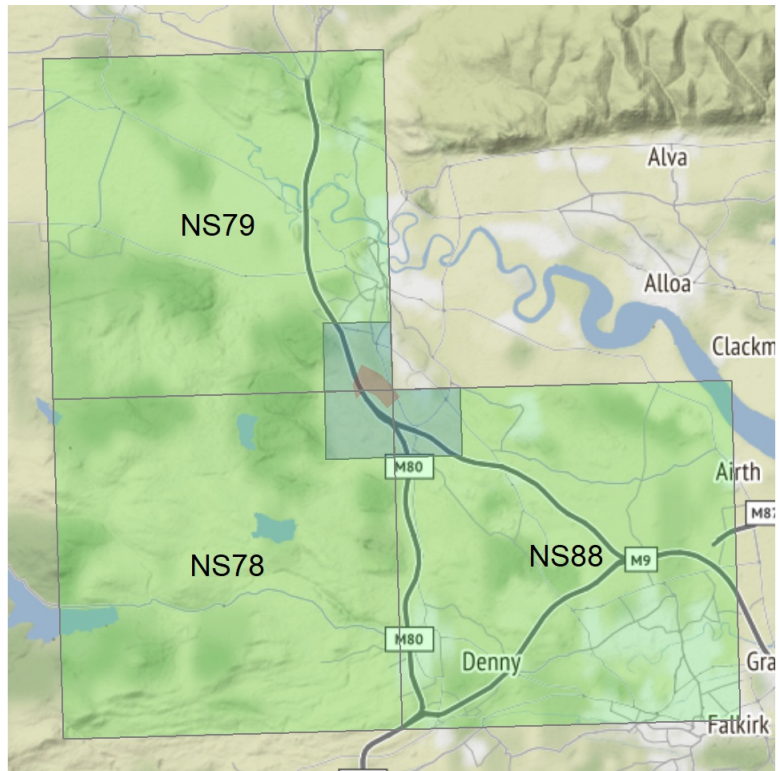
Site with 1-km squares

Five relevant 1-km squares : NS7889, NS7890, NS7989, NS7990, NS8089



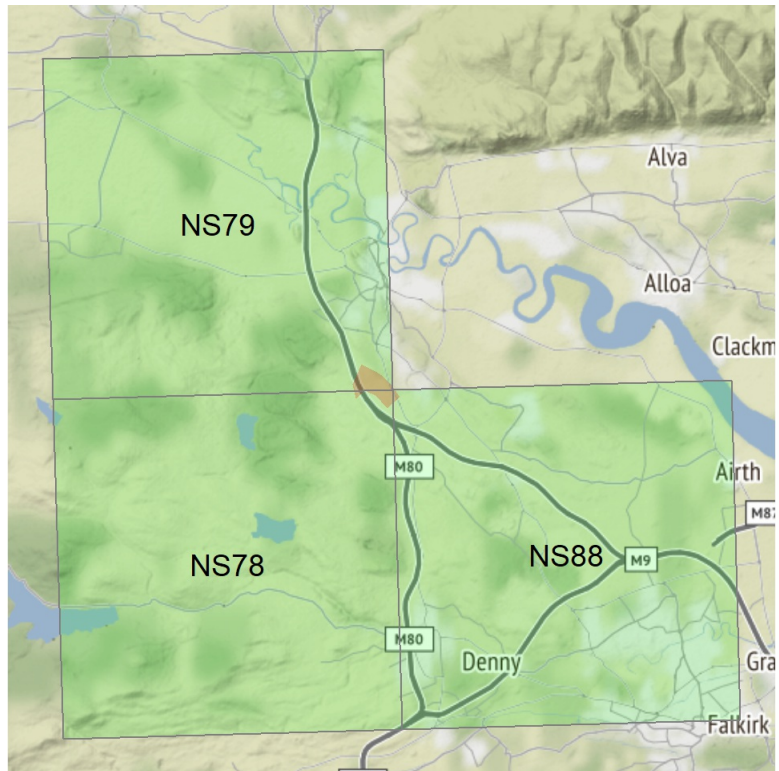
Site with tetrads

Three relevant tetrads : NS78Z, NS79V, NS88E



Site with 10-km squares

Three relevant 10-km squares : NS78, NS79, NS88

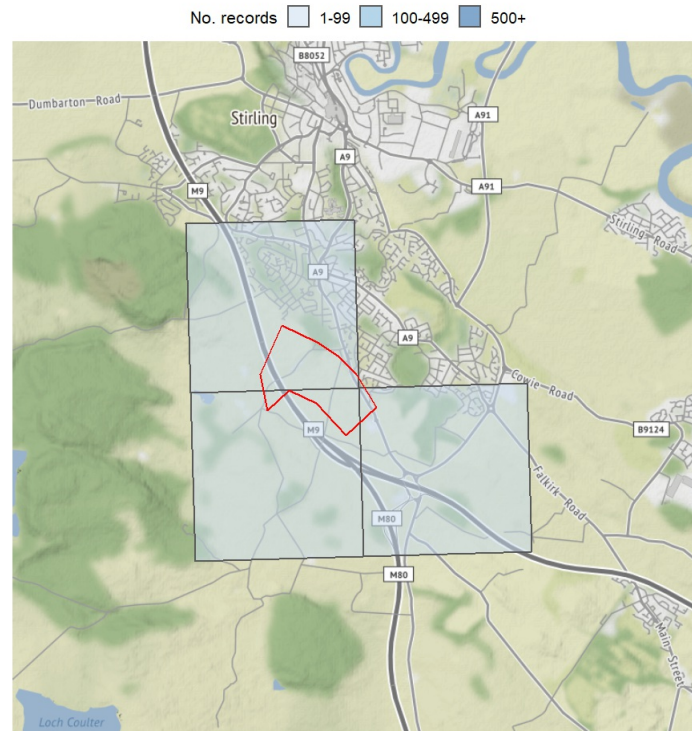


Appendix 2. Additional coverage maps

Atlas winter coverage

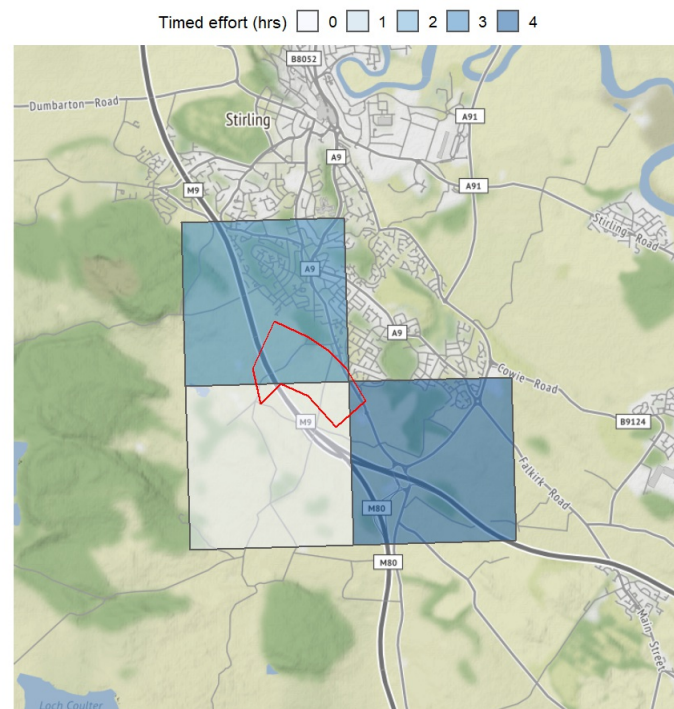
Map of unstructured Bird Atlas coverage in winter

Distribution of casual records (winter)



Map of structured Bird Atlas coverage in winter

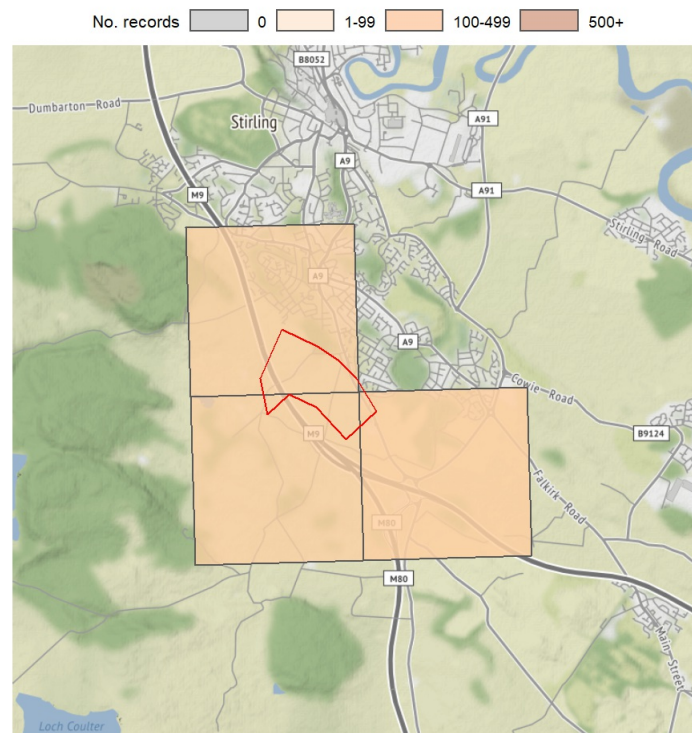
Distribution of timed effort (winter)



BirdTrack coverage

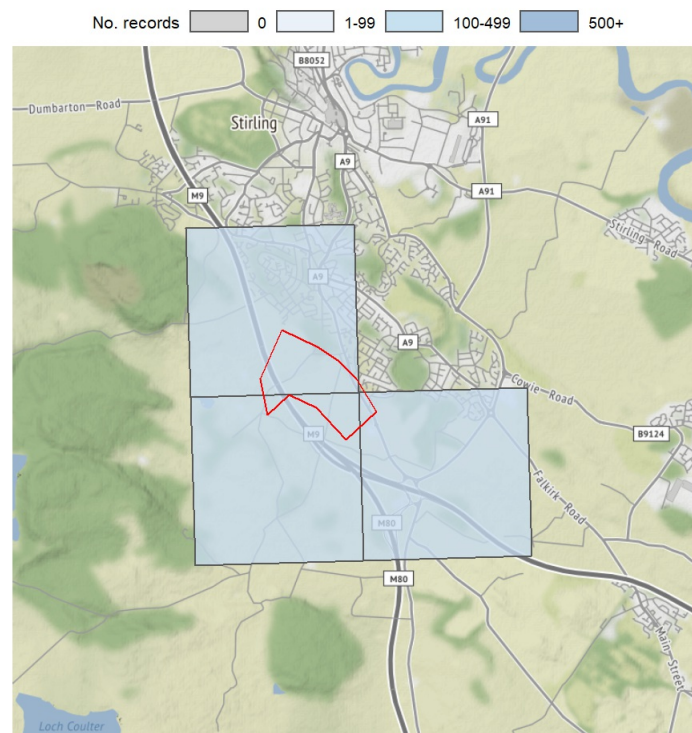
Map of BirdTrack recording effort in the breeding season. Grey shading indicates no sites centred in the tetrad, although sites from bordering tetrads may have extended into the tetrad.

Distribution of BirdTrack records (breeding)



Map of BirdTrack recording effort in the non-breeding season. Grey shading indicates no sites centred in the tetrad, although sites from bordering tetrads may have extended into the tetrad.

Distribution of BirdTrack records (non-breeding)



Appendix 3. Species list 2007–11

Feature column heading abbreviations: S1 = Schedule 1 UK; A1 = Annex 1; Amber, Red = BoCC5 Amber and Red list; CR, EN, NT, VU = GB IUCN2 Critically Endangered, Endangered, Near Threatened and Vulnerable; S41E = Section 41 England; SZA1EW = Schedule ZA1 England & Wales; S1AS = Schedule 1A Scotland; SA1S = Schedule A1 Scotland; SBL = Scottish Biodiversity List; S7W = Section 7 Wales.

Breeding season

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | Tetrad | 10-km/20-km/50-km |
|------|--------------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|-----------|-------------------|
| CG | Canada Goose | | | | | | | | | | | | | | Confirmed |
| GJ | Greylag Goose | | | Y | | | | | | | | | | | Confirmed |
| MS | Mute Swan | | | | | | | | | | | | | Confirmed | Confirmed |
| SU | Shelduck | | | Y | | Y | | | | | | | | | Probable |
| MA | Mallard | | | Y | | | | Y | | | | | | Confirmed | Confirmed |
| T. | Teal | | | Y | | | | | | | | | | | Confirmed |
| TU | Tufted Duck | | | | | | | Y | | | | | | Possible | Confirmed |
| GD | Goosander | | | | | | | | | | | | | | Confirmed |
| RG | Red Grouse | | | | | | | | | | | | Y | | Confirmed |
| BK | Black Grouse | | Y | | | | | Y | Y | | | | Y | | Probable |
| P. | Grey Partridge | | Y | | | | | Y | | | | | Y | Probable | Probable |
| PH | Pheasant | | | | | | | | | | | | | Probable | Confirmed |
| Q. | Quail | Y | | Y | | Y | | | | Y | | | | | Probable |
| RL | Red-legged Partridge | | | | | | | | | | | | | | Probable |
| SI | Swift | | Y | | | Y | | | | | | | Y | Possible | Confirmed |
| CK | Cuckoo | | Y | | | | | | | | | | Y | | Possible |
| DV | Rock Dove | | | | | | | | | | | | | | Confirmed |
| SD | Stock Dove | | | Y | | | | | | | | | | Probable | Confirmed |
| WP | Woodpigeon | | | Y | | | | | | | | | | Probable | Confirmed |
| CD | Collared Dove | | | | | | Y | | | | | | | Probable | Confirmed |
| MH | Moorhen | | | Y | | | | Y | | | | | | Possible | Confirmed |
| CO | Coot | | | | | | | Y | | | | | | | Confirmed |
| LG | Little Grebe | | | | | | | | | | | | | | Confirmed |
| GG | Great Crested Grebe | | | | | | | | | | | | | | Confirmed |
| OC | Oystercatcher | | | Y | | | | Y | | | | | | Possible | Confirmed |
| L. | Lapwing | | Y | | | | | Y | | | | | Y | Possible | Confirmed |
| RP | Ringed Plover | | Y | | | | | Y | | | | | | | Confirmed |
| LP | Little Ringed Plover | Y | | | | | | | | Y | | | | | Confirmed |
| CU | Curlew | | Y | | | Y | | | | | | | Y | Possible | Confirmed |
| WK | Woodcock | | Y | | | | | Y | | | | | Y | | Confirmed |
| SN | Snipe | | | Y | | | | Y | | | | | | | Confirmed |
| CS | Common Sandpiper | | | Y | | | Y | | | | | | | | Confirmed |
| RK | Redshank | | | Y | | | | Y | | | | | | | Confirmed |
| BH | Black-headed Gull | | | Y | | | | Y | | | | | Y | | Possible |
| CM | Common Gull | | | Y | | | | | | | | | | | Confirmed |
| HG | Herring Gull | | Y | | | Y | | | | | | | Y | | Confirmed |
| LB | Lesser Black-backed Gull | | | Y | | | | | | | | | | | Confirmed |
| RH | Red-throated Diver | Y | | | | | Y | | Y | Y | | | Y | | Probable |

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | Tetrad | 10-km/20-km/50-km |
|------|--------------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|-----------|-------------------|
| H. | Grey Heron | | | | | | | Y | | | | | | | Confirmed |
| OP | Osprey | Y | | Y | | | Y | | Y | Y | | | Y | | Confirmed |
| SH | Sparrowhawk | | | Y | | | | Y | | | | | | | Confirmed |
| GI | Goshawk | Y | | | | | Y | | | Y | | | | | Confirmed |
| KT | Red Kite | Y | | | | | | | Y | | Y | | Y | | Confirmed |
| BZ | Buzzard | | | | | | | | | | | | | Possible | Confirmed |
| BO | Barn Owl | Y | | | | | | | | | | | Y | | Confirmed |
| LE | Long-eared Owl | | | | | | | | | Y | | | | | Confirmed |
| SE | Short-eared Owl | | | Y | | Y | | | Y | Y | | | Y | | Confirmed |
| TO | Tawny Owl | | | Y | | | Y | | | | | | | | Confirmed |
| KF | Kingfisher | Y | | | | | | Y | Y | | | | Y | | Confirmed |
| GS | Great Spotted Woodpecker | | | | | | | | | | | | | Possible | Confirmed |
| G. | Green Woodpecker | | | | | | Y | | | | | | | | Probable |
| K. | Kestrel | | | Y | | | | Y | | | | | Y | | Confirmed |
| ML | Merlin | Y | Y | | | Y | | | Y | Y | | | Y | | Probable |
| PE | Peregrine | Y | | | | | | | Y | Y | | | Y | | Confirmed |
| J. | Jay | | | | | | | | | | | | | Probable | Confirmed |
| MG | Magpie | | | | | | | | | | | | | Possible | Confirmed |
| JD | Jackdaw | | | | | | | | | | | | | Confirmed | Confirmed |
| RO | Rook | | | Y | | | Y | | | | | | | Confirmed | Confirmed |
| C. | Carrion Crow | | | | | | | | | | | | | Probable | Confirmed |
| RN | Raven | | | | | | | | | | | | | | Confirmed |
| CT | Coal Tit | | | | | | | | | | | | | Confirmed | Confirmed |
| BT | Blue Tit | | | | | | | | | | | | | Confirmed | Confirmed |
| GT | Great Tit | | | | | | | | | | | | | Probable | Confirmed |
| S. | Skylark | | Y | | | | | | | | | | Y | Possible | Confirmed |
| SM | Sand Martin | | | | | | | | | | | | | | Confirmed |
| SL | Swallow | | | | | | | Y | | | | | | Confirmed | Confirmed |
| HM | House Martin | | Y | | | | Y | | | | | | | Confirmed | Confirmed |
| LT | Long-tailed Tit | | | | | | | | | | | | | Probable | Confirmed |
| WO | Wood Warbler | | Y | | | | | Y | | | | | Y | | Possible |
| WW | Willow Warbler | | | Y | | | | | | | | | | Confirmed | Confirmed |
| CC | Chiffchaff | | | | | | | | | | | | | Possible | Confirmed |
| SW | Sedge Warbler | | | Y | | | Y | | | | | | | | Confirmed |
| GH | Grasshopper Warbler | | Y | | | | | | | | | | Y | | Probable |
| BC | Blackcap | | | | | | | | | | | | | Possible | Confirmed |
| GW | Garden Warbler | | | | | | | | | | | | | Possible | Confirmed |
| WH | Whitethroat | | | Y | | | | | | | | | | Probable | Confirmed |
| GC | Goldcrest | | | | | | | | | | | | | Possible | Confirmed |
| WR | Wren | | | Y | | | | | | | | | | Probable | Confirmed |
| NH | Nuthatch | | | | | | | | | | | | | | Confirmed |
| TC | Treecreeper | | | | | | | | | | | | | | Confirmed |
| SG | Starling | | Y | | | | | Y | | | | | Y | Confirmed | Confirmed |
| ST | Song Thrush | | | Y | | | | | | | | | Y | Probable | Confirmed |
| M. | Mistle Thrush | | Y | | | | Y | | | | | | | | Confirmed |
| B. | Blackbird | | | | | | | | | | | | | Confirmed | Confirmed |
| SF | Spotted Flycatcher | | Y | | | | Y | | | | | | Y | Probable | Confirmed |

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | Tetrad | 10-km/20-km/50-km |
|------|------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|-----------|-------------------|
| R. | Robin | | | | | | | | | | | | | Confirmed | Confirmed |
| RT | Redstart | | | Y | | | | | | | | | | | Confirmed |
| WC | Whinchat | | Y | | | | Y | | | | | | | | Confirmed |
| SC | Stonechat | | | | | | | | | | | | | | Confirmed |
| W. | Wheatear | | | Y | | Y | | | | | | | | | Confirmed |
| DI | Dipper | | | Y | | | | | | | | | | | Confirmed |
| TS | Tree Sparrow | | Y | | | | | Y | | | | | Y | | Confirmed |
| HS | House Sparrow | | Y | | | | | | | | | | Y | Confirmed | Confirmed |
| D. | Duncock | | | Y | | | | | | | | | Y | Probable | Confirmed |
| GL | Grey Wagtail | | | Y | | | Y | | | | | | | | Confirmed |
| PW | Pied Wagtail | | | | | | | | | | | | | Confirmed | Confirmed |
| MP | Meadow Pipit | | | Y | | | | | | | | | | Possible | Confirmed |
| TP | Tree Pipit | | Y | | | | | | | | | | Y | | Confirmed |
| CH | Chaffinch | | | | | Y | | | | | | | | Confirmed | Confirmed |
| BF | Bullfinch | | | Y | | | | | | | | | Y | | Confirmed |
| GR | Greenfinch | | Y | | | Y | | | | | | | | Possible | Confirmed |
| TW | Twite | | Y | | | Y | | | | | | | Y | | Probable |
| LI | Linnet | | Y | | | | | | | | | | Y | | Confirmed |
| LR | Lesser Redpoll | | Y | | | | | | | | | | Y | | Confirmed |
| CR | Common Crossbill | Y | | | | | | | | | | | | | Confirmed |
| GO | Goldfinch | | | | | | | | | | | | | Probable | Confirmed |
| SK | Siskin | | | | | | | | | | | | Y | Confirmed | Confirmed |
| Y. | Yellowhammer | | Y | | | | | | | | | | Y | Confirmed | Confirmed |
| RB | Reed Bunting | | | Y | | | | | | | | | Y | | Confirmed |

Winter

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | Tetrad | 10-km/20-km/50-km |
|------|------------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|---------|-------------------|
| CG | Canada Goose | | | | | | | | | | | | | | Present |
| BY | Barnacle Goose | | | Y | | | | Y | | | | | Y | | Present |
| GJ | Greylag Goose | | | Y | | | | | | | | | | | Present |
| PG | Pink-footed Goose | | | Y | | | | | | Y | | | | | Present |
| WG | White-fronted Goose | | Y | | | Y | | | | | | | Y | | Present |
| MS | Mute Swan | | | | | | | | | | | | | | Present |
| WS | Whooper Swan | | Y | | Y | Y | | Y | Y | | | | Y | | Present |
| SU | Shelduck | | | Y | | Y | | | | | | | | | Present |
| GA | Gadwall | | | Y | | | | | | | | | | | Present |
| WN | Wigeon | | | Y | | | | Y | | Y | | | | | Present |
| MA | Mallard | | | Y | | | | Y | | | | | | Present | Present |
| T. | Teal | | | Y | | | | | | | | | | | Present |
| PO | Pochard | | Y | | | Y | | | | Y | | | Y | | Present |
| TU | Tufted Duck | | | | | | | Y | | | | | | | Present |
| LN | Long-tailed Duck | | Y | Y | | | Y | | | Y | | | | | Present |
| GN | Goldeneye | | Y | | | | | Y | | Y | | | | | Present |
| GD | Goosander | | | | | | | | | | | | | | Present |
| RM | Red-breasted Merganser | | | Y | | | | Y | | Y | | | | | Present |
| RG | Red Grouse | | | | | | | | | | | | Y | | Present |
| BK | Black Grouse | | Y | | | | | Y | Y | | | | Y | | Present |
| P. | Grey Partridge | | Y | | | | | Y | | | | | Y | Present | Present |
| PH | Pheasant | | | | | | | | | | | | | Present | Present |
| RL | Red-legged Partridge | | | | | | | | | | | | | | Present |
| DV | Rock Dove | | | | | | | | | | | | | Present | Present |
| SD | Stock Dove | | | Y | | | | | | | | | | Present | Present |
| WP | Woodpigeon | | | Y | | | | | | | | | | Present | Present |
| CD | Collared Dove | | | | | | Y | | | | | | | Present | Present |
| WA | Water Rail | | | | | | | | | | | | | | Present |
| MH | Moorhen | | | Y | | | | Y | | | | | | Present | Present |
| CO | Coot | | | | | | | Y | | | | | | | Present |
| LG | Little Grebe | | | | | | | | | | | | | | Present |
| GG | Great Crested Grebe | | | | | | | | | | | | | | Present |
| OC | Oystercatcher | | | Y | | | | Y | | | | | | | Present |
| L. | Lapwing | | Y | | | | | Y | | | | | Y | | Present |
| GP | Golden Plover | | | | | | | | Y | | | | Y | | Present |
| CU | Curlew | | Y | | | Y | | | | | | | Y | | Present |
| BW | Black-tailed Godwit | | Y | Y | | Y | | | | Y | | | Y | | Present |
| DN | Dunlin | | Y | | | | | Y | Y | | | | Y | | Present |
| WK | Woodcock | | Y | | | | | Y | | | | | Y | | Present |
| JS | Jack Snipe | | | | | | | | | Y | | | | | Present |
| SN | Snipe | | | Y | | | | Y | | | | | | | Present |
| GE | Green Sandpiper | | Y | | Y | Y | | | | Y | | | Y | | Present |
| RK | Redshank | | | Y | | | | Y | | | | | | | Present |
| GK | Greenshank | | Y | | Y | | | | | Y | | | | | Present |
| KI | Kittiwake | | Y | | | Y | | | | | | | | | Present |

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | Tetrad | 10-km/20-km/50-km |
|------|--------------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|---------|-------------------|
| BH | Black-headed Gull | | | Y | | | | Y | | | | | Y | Present | Present |
| MU | Mediterranean Gull | Y | | Y | | | | | Y | Y | | | | | Present |
| CM | Common Gull | | | Y | | | | | | | | | | Present | Present |
| GB | Great Black-backed Gull | | | Y | | Y | | | | | | | | | Present |
| HG | Herring Gull | | Y | | | Y | | | | | | | Y | Present | Present |
| LB | Lesser Black-backed Gull | | | Y | | | | | | | | | | | Present |
| CA | Cormorant | | | | | | Y | | | | | | | | Present |
| H. | Grey Heron | | | | | | | Y | | | | | | Present | Present |
| SH | Sparrowhawk | | | Y | | | | Y | | | | | | Present | Present |
| GI | Goshawk | Y | | | | | Y | | | Y | | | | | Present |
| HH | Hen Harrier | Y | Y | | | Y | | | Y | Y | Y | | Y | | Present |
| KT | Red Kite | Y | | | | | | | Y | | Y | | Y | Present | Present |
| WE | White-tailed Eagle | Y | | Y | | Y | | | Y | Y | Y | Y | Y | | Present |
| BZ | Buzzard | | | | | | | | | | | | | Present | Present |
| BO | Barn Owl | Y | | | | | | | | | | | Y | Present | Present |
| LE | Long-eared Owl | | | | | | | | | Y | | | | | Present |
| SE | Short-eared Owl | | | Y | | Y | | | Y | Y | | | Y | | Present |
| TO | Tawny Owl | | | Y | | | Y | | | | | | | | Present |
| KF | Kingfisher | Y | | | | | | Y | Y | | | | Y | Present | Present |
| GS | Great Spotted Woodpecker | | | | | | | | | | | | | Present | Present |
| G. | Green Woodpecker | | | | | | Y | | | | | | | | Present |
| K. | Kestrel | | | Y | | | | Y | | | | | Y | Present | Present |
| ML | Merlin | Y | Y | | | Y | | | Y | Y | | | Y | | Present |
| PE | Peregrine | Y | | | | | | | Y | Y | | | Y | | Present |
| J. | Jay | | | | | | | | | | | | | | Present |
| MG | Magpie | | | | | | | | | | | | | Present | Present |
| JD | Jackdaw | | | | | | | | | | | | | Present | Present |
| RO | Rook | | | Y | | | Y | | | | | | | Present | Present |
| C. | Carion Crow | | | | | | | | | | | | | Present | Present |
| RN | Raven | | | | | | | | | | | | | | Present |
| WX | Waxwing | | | | | | | | | Y | | | | Present | Present |
| CT | Coal Tit | | | | | | | | | | | | | Present | Present |
| BT | Blue Tit | | | | | | | | | | | | | Present | Present |
| GT | Great Tit | | | | | | | | | | | | | Present | Present |
| S. | Skylark | | Y | | | | | | | | | | Y | Present | Present |
| LT | Long-tailed Tit | | | | | | | | | | | | | Present | Present |
| CC | Chiffchaff | | | | | | | | | | | | | | Present |
| BC | Blackcap | | | | | | | | | | | | | | Present |
| GC | Goldcrest | | | | | | | | | | | | | Present | Present |
| WR | Wren | | | Y | | | | | | | | | | Present | Present |
| NH | Nuthatch | | | | | | | | | | | | | | Present |
| TC | Treecreeper | | | | | | | | | | | | | Present | Present |
| SG | Starling | | Y | | | | | Y | | | | | Y | Present | Present |
| ST | Song Thrush | | | Y | | | | | | | | | Y | Present | Present |
| M. | Mistle Thrush | | Y | | | | Y | | | | | | | Present | Present |
| RE | Redwing | Y | | Y | Y | | | | | Y | | | Y | Present | Present |
| B. | Blackbird | | | | | | | | | | | | | Present | Present |

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | Tetrad | 10-km/20-km/50-km |
|------|-----------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|---------|-------------------|
| FF | Fieldfare | Y | Y | | Y | | | | | Y | | | | Present | Present |
| R. | Robin | | | | | | | | | | | | | Present | Present |
| SC | Stonechat | | | | | | | | | | | | | | Present |
| DI | Dipper | | | Y | | | | | | | | | | Present | Present |
| TS | Tree Sparrow | | Y | | | | | Y | | | | | Y | Present | Present |
| HS | House Sparrow | | Y | | | | | | | | | | Y | Present | Present |
| D. | Dunnock | | | Y | | | | | | | | | Y | Present | Present |
| GL | Grey Wagtail | | | Y | | | Y | | | | | | | | Present |
| PW | Pied Wagtail | | | | | | | | | | | | | Present | Present |
| MP | Meadow Pipit | | | Y | | | | | | | | | | | Present |
| CH | Chaffinch | | | | | Y | | | | | | | | Present | Present |
| BL | Brambling | Y | | | | | | | | Y | | | Y | Present | Present |
| BF | Bullfinch | | | Y | | | | | | | | | Y | Present | Present |
| GR | Greenfinch | | Y | | | Y | | | | | | | | Present | Present |
| TW | Twite | | Y | | | Y | | | | | | | Y | | Present |
| LI | Linnet | | Y | | | | | | | | | | Y | Present | Present |
| LR | Lesser Redpoll | | Y | | | | | | | | | | Y | | Present |
| FQ | Common/Lesser Redpoll | | | | | | | | | | | | | | Present |
| CR | Common Crossbill | Y | | | | | | | | | | | | | Present |
| GO | Goldfinch | | | | | | | | | | | | | Present | Present |
| SK | Siskin | | | | | | | | | | | | Y | Present | Present |
| SB | Snow Bunting | Y | | Y | | Y | | | | Y | | | Y | | Present |
| Y. | Yellowhammer | | Y | | | | | | | | | | Y | Present | Present |
| RB | Reed Bunting | | | Y | | | | | | | | | Y | Present | Present |

Appendix 4. Species list 2018–2022

Feature column heading abbreviations: S1 = Schedule 1 UK; A1 = Annex 1; Amber, Red = BoCC5 Amber and Red list; CR, EN, NT, VU = GB IUCN2 Critically Endangered, Endangered, Near Threatened and Vulnerable; S41E = Section 41 England; SZA1EW = Schedule ZA1 England & Wales; S1AS = Schedule 1A Scotland; SA1S = Schedule A1 Scotland; SBL = Scottish Biodiversity List; S7W = Section 7 Wales.

Breeding season

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | 1-km | 2-km | 10-km | >10-km |
|------|------------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|---------|-----------|-----------|-----------|
| CG | Canada Goose | | | | | | | | | | | | | | Present | Confirmed | Present |
| GJ | Greylag Goose | | | Y | | | | | | | | | | | Present | Confirmed | |
| PG | Pink-footed Goose | | | Y | | | | | | Y | | | | | | Present | |
| MS | Mute Swan | | | | | | | | | | | | | | Confirmed | Confirmed | |
| WS | Whooper Swan | Y | | Y | | Y | | | Y | Y | | | | Y | | Present | Present |
| SU | Shelduck | | | Y | | Y | | | | | | | | | | Possible | |
| MN | Mandarin Duck | | | | | | | | | | | | | | Present | Present | |
| GA | Gadwall | | | Y | | | | | | | | | | | | Present | Present |
| WN | Wigeon | | | Y | | | | Y | | Y | | | | | Present | Confirmed | Present |
| MA | Mallard | | | Y | | | | Y | | | | | | Present | Confirmed | Confirmed | Probable |
| PT | Pintail | | | Y | Y | | | | | Y | | | | | | Present | |
| T. | Teal | | | Y | | | | | | | | | | | Present | Present | |
| PO | Pochard | Y | | | | Y | | | | Y | | | | Y | | Present | |
| TU | Tufted Duck | | | | | | | Y | | | | | | | Present | Confirmed | |
| GN | Goldeneye | Y | | | | | | Y | | Y | | | | | | Present | |
| GD | Goosander | | | | | | | | | | | | | | Present | Confirmed | |
| RM | Red-breasted Merganser | | | Y | | | | Y | | Y | | | | | | Present | |
| RG | Red Grouse | | | | | | | | | | | | | Y | | Present | Present |
| BK | Black Grouse | Y | | | | | | Y | Y | | | | | Y | | Present | |
| P. | Grey Partridge | Y | | | | | | Y | | | | | | Y | | Confirmed | |
| PH | Pheasant | | | | | | | | | | | | | | Confirmed | Confirmed | Possible |
| Q. | Quail | Y | | Y | | Y | | | | Y | | | | | | | Possible |
| RL | Red-legged Partridge | | | | | | | | | | | | | | | Present | |
| NJ | Nightjar | | | Y | | | | | Y | | | | | Y | | | Present |
| SI | Swift | Y | | | | Y | | | | | | | | Y | Present | Present | Probable |
| CK | Cuckoo | Y | | | | | | | | | | | | Y | | Present | Possible |
| DV | Rock Dove | | | | | | | | | | | | | | Present | Probable | Possible |
| SD | Stock Dove | | | Y | | | | | | | | | | | Probable | Confirmed | |
| WP | Woodpigeon | | | Y | | | | | | | | | | Present | Present | Probable | Present |
| CD | Collared Dove | | | | | | Y | | | | | | | | Possible | Probable | Present |
| WA | Water Rail | | | | | | | | | | | | | | Possible | Possible | |
| MH | Moorhen | | | Y | | | | Y | | | | | | | Confirmed | Confirmed | |
| CO | Coot | | | | | | | Y | | | | | | | | Confirmed | |
| AN | Crane | | | Y | | | | Y | Y | Y | | | | | | | Present |
| LG | Little Grebe | | | | | | | | | | | | | | Probable | Confirmed | |
| GG | Great Crested Grebe | | | | | | | | | | | | | | | Probable | |
| OC | Oystercatcher | | | Y | | | | Y | | | | | | Present | Present | Probable | Confirmed |
| L. | Lapwing | Y | | | | | | Y | | | | | | Y | Probable | Probable | |

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | 1-km | 2-km | 10-km | >10-km |
|------|--------------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|---------|-----------|-----------|-----------|
| GP | Golden Plover | | | | | | | | Y | | | | Y | | | | Present |
| RP | Ringed Plover | | Y | | | | | Y | | | | | | | | Present | |
| LP | Little Ringed Plover | Y | | | | | | | | Y | | | | | | Probable | Present |
| WM | Whimbrel | Y | Y | | | Y | | | | Y | | | | | | Present | |
| CU | Curlew | | Y | | | Y | | | | | | | Y | | | Confirmed | |
| BW | Black-tailed Godwit | Y | Y | | | Y | | | | Y | | | Y | | | | Present |
| WK | Woodcock | | Y | | | | | Y | | | | | Y | | | Present | |
| SN | Snipe | | | Y | | | | Y | | | | | | | Present | Present | |
| CS | Common Sandpiper | | | Y | | | Y | | | | | | | | | Confirmed | |
| GE | Green Sandpiper | Y | | Y | Y | | | | | Y | | | Y | | | Present | |
| RK | Redshank | | | Y | | | | Y | | | | | | | | Present | Possible |
| BH | Black-headed Gull | | | Y | | | | Y | | | | | Y | | Present | Confirmed | Present |
| MU | Mediterranean Gull | Y | | Y | | | | | Y | Y | | | | | | | Present |
| CM | Common Gull | | | Y | | | | | | | | | | Present | Present | Present | |
| GB | Great Black-backed Gull | | | Y | | Y | | | | | | | | | | Present | Present |
| HG | Herring Gull | | Y | | | Y | | | | | | | Y | Present | | Confirmed | Present |
| LB | Lesser Black-backed Gull | | | Y | | | | | | | | | | | Present | Confirmed | Present |
| TE | Sandwich Tern | | | Y | | | | | Y | | | | Y | | | Present | |
| CN | Common Tern | | | Y | | | Y | | Y | | | | Y | | | | Confirmed |
| GU | Guillemot | | | Y | | | | | | | | | | | | Present | |
| RH | Red-throated Diver | Y | | | | | Y | | Y | Y | | | Y | | | Present | |
| CA | Cormorant | | | | | | Y | | | | | | | | Present | Present | |
| H. | Grey Heron | | | | | | | Y | | | | | | | Present | Confirmed | |
| ET | Little Egret | | | | | | | | Y | Y | | | | | | Present | |
| OP | Osprey | Y | | Y | | | Y | | Y | Y | | | Y | | Present | Possible | Confirmed |
| SH | Sparrowhawk | | | Y | | | | Y | | | | | | | Present | Confirmed | |
| GI | Goshawk | Y | | | | | Y | | | Y | | | | | | Present | |
| MR | Marsh Harrier | Y | | Y | | | | | Y | Y | | | Y | | | Present | |
| HH | Hen Harrier | Y | Y | | | Y | | | Y | Y | Y | | Y | | | Present | |
| KT | Red Kite | Y | | | | | | | Y | | Y | | Y | | | Present | |
| BZ | Buzzard | | | | | | | | | | | | | Present | Present | Confirmed | Possible |
| BO | Barn Owl | Y | | | | | | | | | | | Y | | Present | Confirmed | |
| LE | Long-eared Owl | | | | | | | | | Y | | | | | | Confirmed | Confirmed |
| SE | Short-eared Owl | | | Y | | Y | | | Y | Y | | | Y | | | Present | Probable |
| TO | Tawny Owl | | | Y | | | Y | | | | | | | | | Confirmed | Present |
| KF | Kingfisher | Y | | | | | | Y | Y | | | | Y | | | Confirmed | |
| GS | Great Spotted Woodpecker | | | | | | | | | | | | | | Present | Confirmed | Probable |
| G. | Green Woodpecker | | | | | | Y | | | | | | | | Possible | Possible | Present |
| K. | Kestrel | | | Y | | | | Y | | | | | Y | | Present | Present | |
| ML | Merlin | Y | Y | | | Y | | | Y | Y | | | Y | | | Present | |
| HY | Hobby | Y | | | | | Y | | | Y | | | Y | | | | Present |
| PE | Peregrine | Y | | | | | | | Y | Y | | | Y | | | Present | |
| J. | Jay | | | | | | | | | | | | | | Present | Confirmed | |
| MG | Magpie | | | | | | | | | | | | | Present | Confirmed | Confirmed | Present |
| JD | Jackdaw | | | | | | | | | | | | | Present | Confirmed | Confirmed | Present |
| RO | Rook | | | Y | | | Y | | | | | | | Present | Present | Confirmed | |
| C. | Carion Crow | | | | | | | | | | | | | Present | Present | Confirmed | Present |

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | 1-km | 2-km | 10-km | >10-km |
|------|---------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|---------|-----------|-----------|-----------|
| HC | Hooded Crow | | | | | | | | | | | | Y | | | Present | |
| RN | Raven | | | | | | | | | | | | | | | Confirmed | |
| CT | Coal Tit | | | | | | | | | | | | | Present | Present | Confirmed | |
| BT | Blue Tit | | | | | | | | | | | | | Present | Confirmed | Confirmed | Probable |
| GT | Great Tit | | | | | | | | | | | | | Present | Confirmed | Confirmed | Confirmed |
| S. | Skylark | | Y | | | | | | | | | | Y | | | Possible | |
| SM | Sand Martin | | | | | | | | | | | | | | Present | Confirmed | |
| SL | Swallow | | | | | | | Y | | | | | | Present | Probable | Confirmed | Confirmed |
| HIM | House Martin | | Y | | | | Y | | | | | | | Present | Confirmed | Confirmed | Present |
| LT | Long-tailed Tit | | | | | | | | | | | | | Present | Confirmed | Confirmed | |
| WO | Wood Warbler | | Y | | | | | Y | | | | | Y | | | | Possible |
| WW | Willow Warbler | | | Y | | | | | | | | | | Present | Confirmed | Confirmed | Probable |
| CC | Chiffchaff | | | | | | | | | | | | | Present | Confirmed | Confirmed | |
| SW | Sedge Warbler | | | Y | | | Y | | | | | | | | Confirmed | Confirmed | |
| RW | Reed Warbler | | | | | | | | | | | | Y | | | Possible | Confirmed |
| GH | Grasshopper Warbler | | Y | | | | | | | | | | Y | | Possible | Possible | |
| BC | Blackcap | | | | | | | | | | | | | Present | Possible | Confirmed | |
| GW | Garden Warbler | | | | | | | | | | | | | | Present | Probable | |
| LW | Lesser Whitethroat | | | | | | | | | | | | | | | Present | Present |
| WH | Whitethroat | | | Y | | | | | | | | | | | Confirmed | Confirmed | |
| GC | Goldcrest | | | | | | | | | | | | | | Possible | Probable | |
| WR | Wren | | | Y | | | | | | | | | | Present | Confirmed | Confirmed | Probable |
| NH | Nuthatch | | | | | | | | | | | | | | Confirmed | Confirmed | Confirmed |
| TC | Treecreeper | | | | | | | | | | | | | | Present | Confirmed | Possible |
| SG | Starling | | Y | | | | | Y | | | | | Y | Present | Confirmed | Confirmed | Present |
| ST | Song Thrush | | | Y | | | | | | | | | Y | Present | Possible | Probable | |
| M. | Mistle Thrush | | Y | | | | Y | | | | | | | | Present | Probable | Possible |
| RE | Redwing | | Y | | Y | Y | | | | Y | | | Y | | | Present | Present |
| B. | Blackbird | | | | | | | | | | | | | Present | Confirmed | Confirmed | |
| FF | Fieldfare | | Y | Y | | Y | | | | Y | | | | | | Present | |
| SF | Spotted Flycatcher | | Y | | | | Y | | | | | | Y | | | Confirmed | Probable |
| R. | Robin | | | | | | | | | | | | | Present | Confirmed | Confirmed | Probable |
| RT | Redstart | | | Y | | | | | | | | | | | | Confirmed | Confirmed |
| WC | Whinchat | | Y | | | | Y | | | | | | | | Present | Present | |
| SC | Stonechat | | | | | | | | | | | | | | | Confirmed | |
| W. | Wheatear | | | Y | | Y | | | | | | | | | | Possible | Possible |
| DI | Dipper | | | Y | | | | | | | | | | | | Confirmed | |
| TS | Tree Sparrow | | Y | | | | | Y | | | | | Y | Present | Confirmed | Confirmed | Confirmed |
| HS | House Sparrow | | Y | | | | | | | | | | Y | Present | Confirmed | Confirmed | |
| D. | Dunnock | | | Y | | | | | | | | | Y | Present | Possible | Probable | Confirmed |
| YW | Yellow Wagtail | | Y | | | | Y | | | | | | Y | | | | Present |
| GL | Grey Wagtail | | | Y | | | Y | | | | | | | | | Confirmed | |
| PW | Pied Wagtail | | | | | | | | | | | | | Present | Present | Confirmed | |
| MP | Meadow Pipit | | | Y | | | | | | | | | | | | Confirmed | Present |
| TP | Tree Pipit | | Y | | | | | | | | | | Y | | | Possible | |
| CH | Chaffinch | | | | | Y | | | | | | | | Present | Confirmed | Confirmed | Probable |
| BF | Bullfinch | | | Y | | | | | | | | | Y | | Present | Confirmed | |

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | 1-km | 2-km | 10-km | >10-km |
|------|------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|---------|-----------|-----------|-----------|
| GR | Greenfinch | | Y | | | Y | | | | | | | | | Possible | Confirmed | Possible |
| LI | Linnet | | Y | | | | | | | | | | Y | | Present | Confirmed | Possible |
| LR | Lesser Redpoll | | Y | | | | | | | | | | Y | | | Confirmed | |
| CR | Common Crossbill | Y | | | | | | | | | | | | | | Confirmed | |
| GO | Goldfinch | | | | | | | | | | | | | Present | Possible | Confirmed | |
| SK | Siskin | | | | | | | | | | | | Y | Present | | Confirmed | |
| Y. | Yellowhammer | | Y | | | | | | | | | | Y | Present | Probable | Confirmed | Probable |
| RB | Reed Bunting | | | Y | | | | | | | | | Y | Present | Confirmed | Confirmed | Confirmed |

Non-breeding season

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | 1-km | 2-km | 10-km | >10-km |
|------|------------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|------|---------|---------|---------|
| CG | Canada Goose | | | | | | | | | | | | | | | Present | Present |
| BY | Barnacle Goose | | | Y | | | | | Y | | | | Y | | | Present | |
| GJ | Greylag Goose | | | Y | | | | | | | | | | | | Present | |
| PG | Pink-footed Goose | | | Y | | | | | | Y | | | | | | Present | Present |
| WG | White-fronted Goose | | Y | | | Y | | | | | | | Y | | | Present | Present |
| MS | Mute Swan | | | | | | | | | | | | | | Present | Present | |
| WS | Whooper Swan | Y | | Y | | Y | | | Y | Y | | | Y | | | Present | Present |
| SU | Shelduck | | | Y | | Y | | | | | | | | | | Present | Present |
| MN | Mandarin Duck | | | | | | | | | | | | | | | Present | Present |
| GY | Garganey | Y | | Y | | Y | | | | Y | | | Y | | | Present | |
| GA | Gadwall | | | Y | | | | | | | | | | | | Present | |
| WN | Wigeon | | | Y | | | | Y | | Y | | | | | Present | Present | |
| MA | Mallard | | | Y | | | | Y | | | | | | | Present | Present | |
| PT | Pintail | | | Y | Y | | | | | Y | | | | | | Present | |
| T. | Teal | | | Y | | | | | | | | | | | Present | Present | |
| PO | Pochard | | Y | | | Y | | | | Y | | | Y | | | Present | |
| TU | Tufted Duck | | | | | | | Y | | | | | | | | Present | Present |
| SP | Scaup | Y | Y | | | Y | | | | Y | | | Y | | | Present | Present |
| E. | Eider | | | Y | | Y | | | | | | | | | | | Present |
| LN | Long-tailed Duck | Y | Y | | | | Y | | | Y | | | | | | Present | |
| GN | Goldeneye | | Y | | | | | Y | | Y | | | | | | Present | Present |
| GD | Goosander | | | | | | | | | | | | | | Present | Present | |
| RM | Red-breasted Merganser | | | Y | | | | Y | | Y | | | | | | Present | Present |
| RG | Red Grouse | | | | | | | | | | | | Y | | | Present | |
| BK | Black Grouse | | Y | | | | | Y | Y | | | | Y | | | Present | |
| P. | Grey Partridge | | Y | | | | | Y | | | | | Y | | | Present | |
| PH | Pheasant | | | | | | | | | | | | | | Present | Present | |
| RL | Red-legged Partridge | | | | | | | | | | | | | | | Present | |
| DV | Rock Dove | | | | | | | | | | | | | | | Present | Present |
| SD | Stock Dove | | | Y | | | | | | | | | | | Present | Present | |
| WP | Woodpigeon | | | Y | | | | | | | | | | | Present | Present | Present |
| CD | Collared Dove | | | | | | Y | | | | | | | | Present | Present | |
| WA | Water Rail | | | | | | | | | | | | | | Present | Present | |
| MH | Moorhen | | | Y | | | | Y | | | | | | | Present | Present | |
| CO | Coot | | | | | | | Y | | | | | | | | Present | |

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | 1-km | 2-km | 10-km | >10-km |
|------|--------------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|------|---------|---------|---------|
| LG | Little Grebe | | | | | | | | | | | | | | Present | Present | |
| GG | Great Crested Grebe | | | | | | | | | | | | | | | Present | |
| SZ | Slavonian Grebe | Y | Y | | Y | | | | Y | Y | | | Y | | | Present | Present |
| OC | Oystercatcher | | | Y | | | | Y | | | | | | | | Present | Present |
| L | Lapwing | | Y | | | | | Y | | | | | Y | | Present | Present | |
| GP | Golden Plover | | | | | | | | Y | | | | Y | | | Present | |
| CU | Curlew | | Y | | | Y | | | | | | | Y | | | Present | |
| BA | Bar-tailed Godwit | | | Y | | | | Y | Y | Y | | | Y | | | | Present |
| BW | Black-tailed Godwit | Y | Y | | | Y | | | | Y | | | Y | | | Present | |
| RU | Ruff | Y | Y | | Y | | | | Y | Y | | | Y | | | Present | Present |
| DN | Dunlin | | Y | | | | | Y | Y | | | | Y | | | | Present |
| LX | Little Stint | | | | | | | | | | | | | | | | Present |
| WK | Woodcock | | Y | | | | | Y | | | | | Y | | | Present | |
| JS | Jack Snipe | | | | | | | | | Y | | | | | | | Present |
| SN | Snipe | | | Y | | | | Y | | | | | | | Present | Present | |
| CS | Common Sandpiper | | | Y | | | Y | | | | | | | | | Present | |
| RK | Redshank | | | Y | | | | Y | | | | | | | | Present | |
| GK | Greenshank | Y | | Y | | | | | | Y | | | | | | Present | |
| KI | Kittiwake | | Y | | Y | | | | | | | | | | | | Present |
| BH | Black-headed Gull | | | Y | | | | Y | | | | | Y | | Present | Present | Present |
| CM | Common Gull | | | Y | | | | | | | | | | | | Present | Present |
| GB | Great Black-backed Gull | | | Y | | Y | | | | | | | | | | Present | |
| IG | Iceland Gull | | | Y | | | Y | | | | | | | | | Present | Present |
| HG | Herring Gull | | Y | | | Y | | | | | | | Y | | | Present | Present |
| LB | Lesser Black-backed Gull | | | Y | | | | | | | | | | | Present | Present | |
| TE | Sandwich Tern | | | Y | | | | | Y | | | | Y | | | Present | |
| GU | Guillemot | | | Y | | | | | | | | | | | | Present | |
| RA | Razorbill | | | Y | | | | | | | | | | | | | Present |
| GX | Gannet | | | Y | | | | | | | | | | | | Present | |
| CA | Cormorant | | | | | | Y | | | | | | | | Present | Present | |
| BI | Bittern | Y | | Y | | | | Y | Y | Y | | | Y | | | Present | |
| EC | Cattle Egret | | | Y | | | | Y | | Y | | | | | | | Present |
| H | Grey Heron | | | | | | | Y | | | | | | | Present | Present | |
| HW | Great White Egret | | | Y | | Y | | | Y | Y | | | | | | Present | |
| ET | Little Egret | | | | | | | | Y | Y | | | | | | Present | |
| SH | Sparrowhawk | | | Y | | | | Y | | | | | | | Present | Present | |
| GI | Goshawk | Y | | | | | Y | | | Y | | | | | | Present | Present |
| HH | Hen Harrier | Y | Y | | | Y | | | Y | Y | Y | | Y | | | Present | Present |
| KT | Red Kite | Y | | | | | | | Y | | Y | | Y | | | Present | Present |
| WE | White-tailed Eagle | Y | | Y | | Y | | | Y | Y | Y | Y | Y | | | Present | |
| BZ | Buzzard | | | | | | | | | | | | | | Present | Present | Present |
| BO | Barn Owl | Y | | | | | | | | | | | Y | | Present | Present | Present |
| LO | Little Owl | | | | | | | | | | | | | | Present | Present | |
| SE | Short-eared Owl | | | Y | | Y | | | Y | Y | | | Y | | | | Present |
| TO | Tawny Owl | | | Y | | | Y | | | | | | | | | Present | Present |
| KF | Kingfisher | Y | | | | | | Y | Y | | | | Y | | | Present | |
| GS | Great Spotted Woodpecker | | | | | | | | | | | | | | Present | Present | Present |

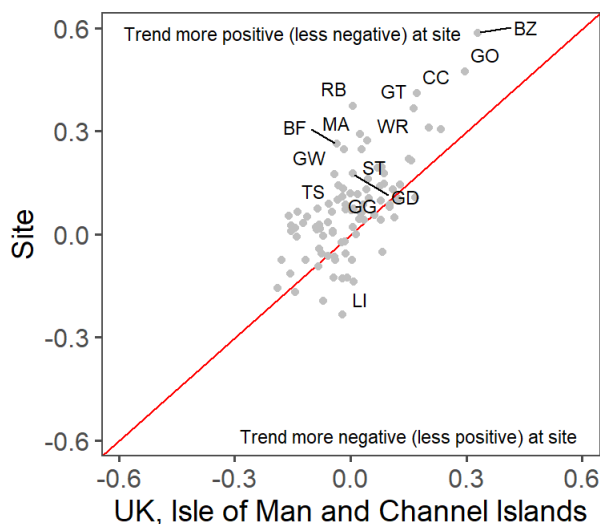
| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | 1-km | 2-km | 10-km | >10-km |
|------|-----------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|------|---------|---------|---------|
| G. | Green Woodpecker | | | | | | Y | | | | | | | | | Present | |
| K. | Kestrel | | | Y | | | | Y | | | | | Y | | Present | Present | Present |
| ML | Merlin | Y | Y | | | Y | | | Y | Y | | | Y | | | Present | Present |
| PE | Peregrine | Y | | | | | | | Y | Y | | | Y | | | Present | |
| RI | Ring-necked Parakeet | | | | | | | | | | | | | | | | Present |
| J. | Jay | | | | | | | | | | | | | | Present | Present | |
| MG | Magpie | | | | | | | | | | | | | | Present | Present | Present |
| JD | Jackdaw | | | | | | | | | | | | | | Present | Present | Present |
| RO | Rook | | | Y | | | Y | | | | | | | | Present | Present | Present |
| C. | Carrion Crow | | | | | | | | | | | | | | Present | Present | Present |
| HC | Hooded Crow | | | | | | | | | | | | Y | | | Present | |
| RN | Raven | | | | | | | | | | | | | | Present | Present | Present |
| WX | Waxwing | | | | | | | | | Y | | | | | | Present | Present |
| CT | Coal Tit | | | | | | | | | | | | | | Present | Present | |
| BT | Blue Tit | | | | | | | | | | | | | | Present | Present | Present |
| GT | Great Tit | | | | | | | | | | | | | | Present | Present | |
| S. | Skylark | | Y | | | | | | | | | | Y | | | Present | |
| SL | Swallow | | | | | | | Y | | | | | | | Present | Present | |
| HM | House Martin | | Y | | | | Y | | | | | | | | Present | Present | |
| LT | Long-tailed Tit | | | | | | | | | | | | | | Present | Present | Present |
| YB | Yellow-browed Warbler | | | Y | | Y | | | | | | | | | | Present | |
| CC | Chiffchaff | | | | | | | | | | | | | | Present | Present | |
| BC | Blackcap | | | | | | | | | | | | | | Present | Present | |
| GC | Goldcrest | | | | | | | | | | | | | | Present | Present | Present |
| WR | Wren | | | Y | | | | | | | | | | | Present | Present | |
| NH | Nuthatch | | | | | | | | | | | | | | Present | Present | Present |
| TC | Treecreeper | | | | | | | | | | | | | | | Present | |
| SG | Starling | | Y | | | | | Y | | | | | Y | | Present | Present | Present |
| ST | Song Thrush | | | Y | | | | | | | | | Y | | Present | Present | |
| M. | Mistle Thrush | | Y | | | | Y | | | | | | | | Present | Present | |
| RE | Redwing | Y | | Y | Y | | | | | Y | | | Y | | Present | Present | |
| B. | Blackbird | | | | | | | | | | | | | | Present | Present | Present |
| FF | Fieldfare | Y | Y | | Y | | | | | Y | | | | | Present | Present | |
| RZ | Ring Ouzel | | Y | | | | Y | | | | | | Y | | | Present | |
| R. | Robin | | | | | | | | | | | | | | Present | Present | |
| BX | Black Redstart | Y | | Y | | | | Y | | Y | | | | | | | Present |
| SC | Stonechat | | | | | | | | | | | | | | | Present | |
| W. | Wheatear | | | Y | | Y | | | | | | | | | | Present | |
| DI | Dipper | | | Y | | | | | | | | | | | | Present | Present |
| TS | Tree Sparrow | | Y | | | | | Y | | | | | Y | | Present | Present | |
| HS | House Sparrow | | Y | | | | | | | | | | Y | | Present | Present | |
| D. | Dunnock | | | Y | | | | | | | | | Y | | Present | Present | Present |
| GL | Grey Wagtail | | | Y | | | Y | | | | | | | | | Present | |
| PW | Pied Wagtail | | | | | | | | | | | | | | Present | Present | |
| MP | Meadow Pipit | | | Y | | | | | | | | | | | | Present | |
| RC | Rock Pipit | | | | | | | | | | | | | | | | Present |
| CH | Chaffinch | | | | | Y | | | | | | | | | Present | Present | Present |

| Code | Species | S1 | Red | Amber | CR | EN | NT | VU | A1 | RBBP | S1AS | SA1S | SBL | 1-km | 2-km | 10-km | >10-km |
|------|------------------|----|-----|-------|----|----|----|----|----|------|------|------|-----|------|---------|---------|---------|
| BL | Brambling | Y | | | | | | | | Y | | | Y | | | Present | |
| HF | Hawfinch | | Y | | | Y | | | | Y | | | Y | | | | Present |
| BF | Bullfinch | | | Y | | | | | | | | | Y | | Present | Present | |
| GR | Greenfinch | | Y | | | Y | | | | | | | | | Present | Present | |
| TW | Twite | | Y | | | Y | | | | | | | Y | | | Present | |
| LI | Linnet | | Y | | | | | | | | | | Y | | | Present | |
| FR | Common Redpoll | | | | | | | | | Y | | | | | Present | Present | |
| LR | Lesser Redpoll | | Y | | | | | | | | | | Y | | | Present | Present |
| CR | Common Crossbill | Y | | | | | | | | | | | | | | Present | |
| GO | Goldfinch | | | | | | | | | | | | | | Present | Present | Present |
| SK | Siskin | | | | | | | | | | | | Y | | | Present | Present |
| Y. | Yellowhammer | | Y | | | | | | | | | | Y | | Present | Present | |
| RB | Reed Bunting | | | Y | | | | | | | | | Y | | Present | Present | |

Appendix 5. Abundance change figures

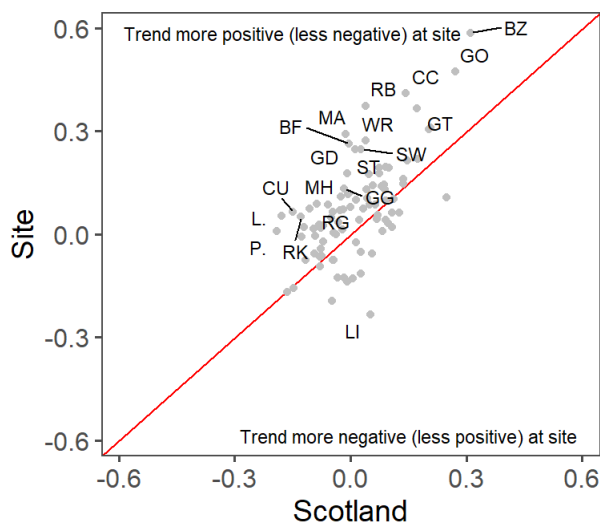
5.1 Country: UK, Isle of Man and Channel Islands

Relative abundance changes for the site and its vicinity compared to the rest of UK, Isle of Man and Channel Islands. Species above the line of equality have more positive/less negative trends at/near the site compared to the country (see Appendix 4 for species codes).



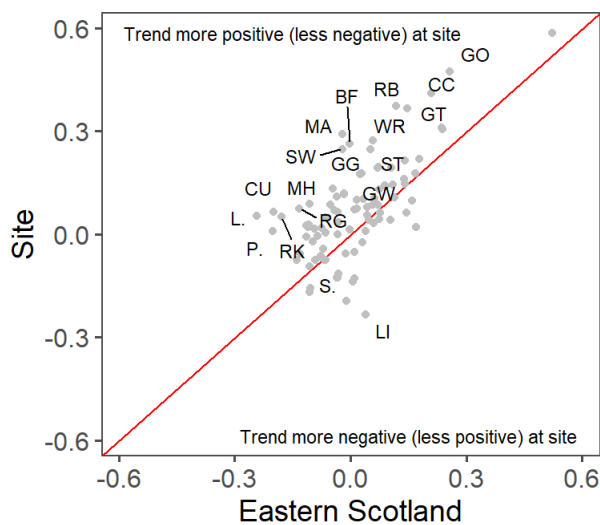
5.2 Country: Scotland

Relative abundance changes for the site and its vicinity compared to the rest of Scotland. Species above the line of equality have more positive/less negative trends at/near the site compared to the country (see Appendix 4 for species codes).



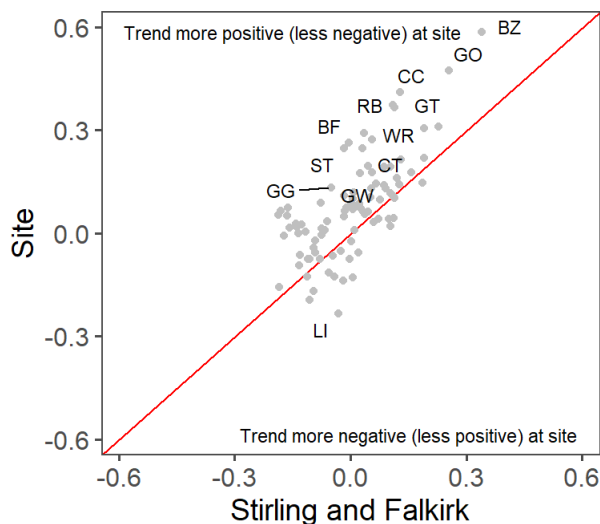
5.3 Region: Eastern Scotland

Relative abundance changes for the site and its vicinity compared to the rest of Eastern Scotland. Species above the line of equality have more positive/less negative trends at/near the site compared to the country (see Appendix 4 for species codes).



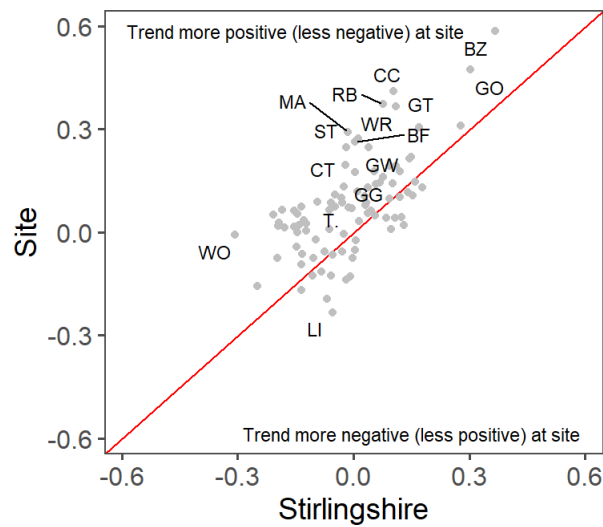
5.4 County: Stirling and Falkirk

Relative abundance changes for the site and its vicinity compared to the rest of Stirling and Falkirk. Species above the line of equality have more positive/less negative trends at/near the site compared to the country (see Appendix 4 for species codes).



5.5 Vice-county: Stirlingshire

Relative abundance changes for the site and its vicinity compared to the rest of Stirlingshire. Species above the line of equality have more positive/less negative trends at/near the site compared to the country (see Appendix 4 for species codes).





Images: Landscape, Simon Gillings; Barn Owl, Liz Cutting

BTO Data Report

BTO Data Reports provide rigorous scientific information to inform desk studies for ecological impact assessment of proposed development sites. Reports collate comprehensive and contemporary bird distribution and abundance data from the BTO's ornithological datasets. As most biological data are collected in grid squares, spatial analyses identify which grid squares can be associated with the site and its vicinity at different spatial scales. Reports lists all species present at or near the site in the breeding season and in winter, highlighting those of statutory or conservation importance (e.g. Schedule 1, Red List). They also assess the potential importance of the site across a local, regional and national context, listing species for which the site and vicinity account for a high proportion of local, regional or national geographical range and population size.

BTO Data Reports provide unique insights into the bird community present in the vicinity of potential development sites, helping to guide the need for detailed field surveys and highlighting potential priorities for delivering habitat mitigation, enhancement and biodiversity net gain.

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