

Interim Report on Brundall Biodiversity Audit – Oct 2023

1 Background

Biodiversity Audits are an established approach to collating species data from multiple sources across a defined geographical area, then using that data to assess the current biodiversity value of the area, species of local importance, biodiversity hotspots and data deficiencies. This information is invaluable in deciding where and how to target actions to benefit biodiversity and is therefore a crucial step in the work of the Biodiversity Working Group to develop and implement the Wildlife and Biodiversity Vision which was adopted by the Parish Council on 05/07/2021.

Phase 1 of a Biodiversity Audit for Brundall parish was carried out between May and Oct 2023. This was a desk study, involving the location of potential sources of species data, and the collation, validation, and summary analysis of a first tranche of data.

2 Methods

The likely sources of species data were identified by reference to recent biodiversity audits carried out in Norfolk (source: <http://www.nbis.org.uk/reports-publications>). The data sources identified and used in the analysis are listed in the table below.

Source	Used in Phase 1 Audit?	No. of records used
National Biodiversity Network Atlas	Yes	7221
iRecord	Yes	1456
iNaturalist	Yes	300
2015 Phase 1 Survey and Management Plan for Brundall Rural Landholdings	Yes	779
Brundall Biodiversity Working Group 2023 surveys	Yes	454
NNNS County Recorder datasets	No ¹	6619
Records held by local recorders	No ²	1731
Local organisations involved in biological surveys/conservation site management	No	-
Norfolk Biological Information Service database	No	-

¹Except bees and wasps; ²Except Tim Strudwick

The records indicated above were collated on an Excel spreadsheet and then subjected to the following “cleaning” processes:

Error identification – errors were assumed only where the grid reference was not near Brundall or the species named was considered implausible at the location and/or date.

De-duplication – since some records are included in 2 or 3 of the datasets used, the deduplication function was used to consolidate records of a species on the same date and grid ref as a single record. This may not have identified all duplicates due to variation in the way data is expressed in each dataset.

3 Results

The analysis below refers to records from the years 2000 onwards. There are relatively few records from before 2000.

Records for Brundall Parish – breakdown by taxonomic group

Taxonomic group	No. of records	No. of species
Mammals	82	19
Birds	5405	146
Reptiles & Amphibians	18	5
Freshwater fish	11	7
Butterflies	192	19
Moths	1072	333
Dragonflies	387	24
Bees	4468	110
Wasps, Ants & Sawflies	2187	166
True bugs	111	89
Flies	411	188
Other invertebrates	459	268
Flowering plants	2366	581
Lower plants	129	61
Fungi/Lichens	120	98
Total	17418	2114

Species records for Brundall Parish Council sites

Site name	No. of records	No. of species
Brundall Countryside Park/Allotments	2084	402
Low Farm Wood	137	135
Church Fen	330	216
Cremer's Meadow	431	377
Whole of Brundall Parish	17418	2114

4 Initial Conclusions

Since all available data is not yet included, only interim conclusions can be made from a brief analysis.

Geographical coverage –only a small proportion of records are geolocated with accuracy greater than 1km, but where records have 100m accuracy or greater, distribution is noticeably uneven across the parish, with concentrations of records around the most accessible green spaces and a few private gardens. There were very few records from the rich habitat of the wet woodlands along the N side of the Yare, the floodplain of the Lackford Run between Cremers Meadow and Strumpshaw Road and Brundall Gardens.

Taxonomic group coverage – birds, mammals, flowering plants, butterflies, dragonflies, bees, and wasps are well recorded, with a high proportion of species regularly occurring in the Parish likely to have been recorded. All other groups have been rather poorly covered, and it is likely that a large proportion of species present have not yet been recorded.

Recorders – it is hard to know how many different individuals have been involved because some datasets anonymize the recorders and others use app-specific usernames which may be very different from real names. Some form of recorder name is available for 9458 records (57% of the data) and there are 141 distinct names listed. These recorders will range from dedicated, specialist recorders who generate lots of records of one or more taxonomic groups year after year, to those who occasionally submit records through engaging with “citizen science” surveys publicized by conservation organisations (eg. Big Garden Bird Watch) or casually submitting occasional records through an online recording platform (e.g., iRecord, iNaturalist).

5 Next Steps

In 2024 the following activities are planned:

- Extend the data trawl to include other data sources
- Verification of records – taking expert opinion of the accuracy and reliability of the records
- BWG Surveys and recording targeting key sites
- Specialist surveys commissioned for under-recorded taxa
- Initiate and public recording project
- Identify species of conservation importance

Tim Strudwick

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