Coulsdon Town - A Community of Biological Recorders

Greenspace Information for Greater London CIC (affectionately known as GiGL) is the local environmental record centre for London. GiGL belongs to <u>ALERC</u>, a nationwide network of organisations maintaining, mobilising and analysing ecological datasets for the benefit of key stakeholders and the public. In advance of a talk at the 2024 AGM, GiGL's Senior Community Officer, Victoria Kleanthous, provides us with a brief overview of GiGL and the information that GiGL holds for the Coulsdon West area.

One of GiGL's core datasets is the species database. The database contains over 8 million biological or species records taken across London, each representing an interaction between an organism and individual – a moment of time and space holding recognition and understanding.

Each species record in the database is, at a minimum, made up of four basic components:

- What was observed?
- Where was it observed?
- When was it observed?
- Who did the observing?

Other information on the organism (e.g. behaviour or abundance), its surrounding environment (e.g. the habitat type in which the organism was recorded), or the survey methodology utilised is very useful, but not essential. The more information provided, the more truthful a picture of the local state of nature can be developed. This information can be used to inform site management decisions, planning/development decisions and conservation practices.

The majority of species records within our species database come to us from devoted naturalists volunteering their time and effort to report on the organisms they observe, such as the London Natural History Society and large landowners conducting habitat surveys and regular monitoring, such as The Royal Parks or Local Authorities. The volume of data for a site for any given year is therefore largely dependent upon the activity of volunteers and whether a local authority has an imminent need for data – such as preceding the publication of a Local Plan. This pattern is seen in the data we hold for Coulsdon Town ward.

As of March 2024, GiGL holds species records spanning 1877 - 2023. This does not necessarily represent all species data available for Coulsdon Town, instead all data which has been made available to GiGL and has been uploaded onto our internal system.

As Figure 1 shows, records for most of this period are scarce, but for the last \sim 25 years, there has been a steady increase in the number of records GiGL hold for the site, resulting from both an increase in the number of data sources and the number of records from each source year on year coming from the area to GiGL.

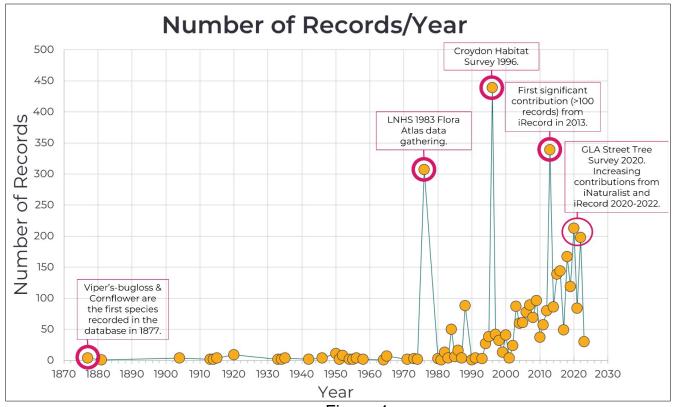


Figure 1

Until 1984, virtually all records are historic flora records from the <u>London Natural History Society</u> (<u>LNHS</u>). After 1980 the group began to contribute bird records as well. Since 1994 there has also been consistent recording from the <u>Surrey and South East London Butterfly Conservation (BC)</u> <u>branch</u>. For the entire data span, both groups consistently contribute records.

In the last 25 years, additional sources of data from ecological consultants, environmental charities such as RSPB and PTES (People's Trust for Endangered Species) and independent recorders using iRecord have increased. The peaks observed in 1996 and 2020 are due to local authority efforts; Croydon's 1996 Habitat Survey undertook mass structured recording contributing to the London-wide Biodiversity Action Plan habitat survey programme which ran from 1984 – 2009, and in 2020, the Greater London Authority worked to document local authority-owned street and park trees across London. Other peaks are the result of increased recording efforts in advance of a publication such as Rodney Burton's 1983 'Flora of the London Area'.

Over this time, a total of 3528 records have been submitted to GiGL, covering 734 distinct species. 17% of these records are protected species (611 records), covering 92 different species (12% of all species recorded). As expected given the active recording sources noted above, the top 5 most recorded species are mainly birds and butterflies (Table 1, overleaf).

The slow worm records are from a mix of sources including consultancy data, independent recorders sharing information through the GiGL webform and accessed through Record Pool.

Top 5 Species Records, 1877 - 2023

Taxon Name	Common Name	Taxon Group	Record Count
Pieris rapae	Cabbage White	Invertebrate - Lepidoptera	112
Gonepteryx rhamni	Common Brimstone	Invertebrate - Lepidoptera	79
Anguis fragilis	Slow Worm	Reptile	77
Accipiter nisus	Eurasian Sparrowhawk	Bird	72
Sylvia atricapilla	Eurasian Blackcap	Bird	72

Table 1

Top 5 Protected Species Records, 1877 - 2023

Taxon Name	Common Name	Taxon Group	Record Count
Anguis fragilis	Slow Worm	Reptile	77
Lucanus cervus	European Stag Beetle	Invertebrate - Coleoptera	69
Erinaceus europaeus	European Hedgehog	Mammal	33
Apus apus	Common Swift	Bird	27
Coenonympha pamphilus	Small Heath	Invertebrate - Lepidoptera	21

Table 2

The top 5 most recorded protected species are slightly more diverse but generally have considerably fewer records per species. Hedgehog records are largely from PTES' Big Hedgehog Map, and swift records are LNHS and swift mapper, from which GiGL has been accessing data since 2011.

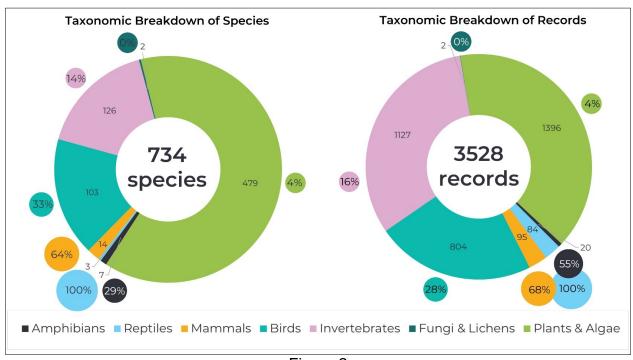


Figure 2

Taxonomic breakdown of the distinct species and all records recorded within Coulsdon Town ward. The smaller circles surrounding each pie chart correspond to the percentage of protected species recorded within each taxonomic group. For example, there are a total of 1396 plant records that have been recorded in the area, of which 4% are protected species. The 1396 records are spread across 479 distinct plant species, where 4% of the distinct species are protected.

The graphs in Figure 2 show the distribution of records and species between broad taxonomic groups and the proportion of which are protected species, shown by the smaller circles surrounding the pie chart. The term 'protected species' refers to any species which has received an international, national and/or local protective designation, such as the <u>IUCN Red List species</u>, <u>UK laws</u> and/or <u>London Priority Species</u>, respectively. The majority of both species and records captured in Coulsdon Town ward are plants, with approximately the same proportion of both records and species represented by protected species (4%). Other than amphibians, across all taxonomic groups, approximately the same proportion of species and records are protected species. While it's hard to draw definitive conclusions as to why certain species are recorded more than others, the diversity of different taxonomic groups found and shared is to be celebrated!

To learn more about biological recording and the recording patterns found in Coulsdon Town, come along to the AGM on Thursday 11th July, 2024.