Data

Instead of Foursquare, this work relies to very similar xeno-canto API. Just an instead of a venue we have observations and instead of a venues category we have name of species. More general description is available on the page: https://www.xeno-canto.org/article/153.

Reason for the different API use is to slightly better understand and acquire the course material (and likewise the example work added to 5th week doesn't use Foursquare)

During this exercise ArcGIS also used – to retrieve England and Wales counties names that correspond the coordinates retrieved from xeno-canto.

For marking counties borders, the GeoJSON file from page https://data.gov.uk/dataset/d6f97a1a-25dc-485c-9af3-0e5681465d77/counties-and-unitary-authorities-december-2016-full-clipped-boundaries-in-england-and-wales have been used.

From xeno-canto the following datafields have been used:

- **id:** the catalogue number of the recording on xeno-canto
- **en:** the English name of the species
- **loc:** the name of the locality
- **lat:** the latitude of the recording in decimal coordinates
- **lng:** the longitude of the recording in decimal coordinates
- **time:** the time of day that the recording was made
- **date:** the date that the recording was made

The original database (were restriction as United Kingdom as country was replaced), retrieved from xeno-canto 26706 observations. For these data, it was possible to find a county match through ArcGIS in the case of 18319 observations. Finally, after some additional data extraction from xeno-canto *loc* field and matching results with England and Wales counties list, a final sample remained for analysis consist of 23782 observations.