

Data set information

Name of data set		
Slug observations		
Background		
The data set contains records of observations of various slug species made by a group of people over a number of years.		
Characteristics of the data set		
The data set is subject to a number of recording biases and these include variable recording in different parts of Britain, in different years and in different habitats and any conclusions drawn should take this into account		
Fields		
Field name	Description	Code(s) and units
Species	This is the scientific names of the species. In some cases species have been aggregated (this is where identification can be difficult or unreliable). In particular all large Arion species are included as Arion ater agg. (Large Black/Red Slug) and both the Cellar Slugs (green and yellow) are included as Limacus flavus agg. Some species are rarely encountered and have very few records. For statistical analyses these records will often need to be discarded.	Names are as given in Slugs of Britain and Ireland, Rowson et al, 2014 ISBN 978 1 908819 13 0 published by the Field Studies Council.
Vice County	This is the Watsonian Vice County which gives the traditional British biological recording area and broadly corresponds to traditional British counties.	These are listed and described in various places including the Wikipedia entry at https://en.wikipedia.org/wiki/Vice-county
Month	The month of the observation	1= January, 2 = February etc
Year	The year of the observation	Given in full
Habitat	Broad habitat descriptions.	Note that the Uncategorized/Other includes records where habitat was not recorded or unusual habitats which fell into no other category
100km square	They can be used to separate records into various broad geographical areas	The first two letters of the national OS grid reference see http://www.ordnancesurvey.co.uk/support/the-national-grid.html
Hatchlings	AGE: Recently hatched, very small individuals.	Yes, no or blank = not recorded
Immatures	AGE: Not yet full grown but too large to be described as hatchlings.	Yes, no or blank = not recorded
Adults	AGE: Full grown individuals.	Yes, no or blank = not recorded
Ideas for investigations		
The most productive lines of enquiry may be those which compare relative abundance of species in different habitats, or different parts of the country, or at different times of year.		
Different species of slug have different habitat preferences, may mature at different times of year, are not uniformly present in all parts of the country and may have distributions which are changing with time. Much is unknown about these things so almost any analysis might provide some new insights into slug ecology.		
Most of the fields in the data set are categorical and most analyses therefore will involve contingency tables. Some further data preparation may be necessary in some cases. For		

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instance, an analysis which compared different major regions of the UK could involve manipulating the 100km square field into, say, 5 categories (north-east, north-west, south-east, south-west, Channel Islands) and this would be done by reference to, for instance, https://en.wikipedia.org/wiki/Ordnance_Survey_National_Grid

Some analyses may require deletion of certain records (it would be difficult to perform any worthwhile analysis on the 1 record of *Testacella haliotidea*, for instance) or else grouping of certain species. Note that it might be unwise to group all species with small numbers of records into one group called 'Other' because this 'other' group would certainly be heterogeneous. Other analyses might compare only certain habitats (e.g. human habitats which include gardens, parks, industrial sites, etc.) and look for differences between urban, suburban and rural areas. Again, broadleaf, coniferous and other woodlands could be compared to the exclusion of all other habitats.

Smaller slug species have annual cycles of life. Comparisons of month and age classes present will throw some light on this.

Some species are spreading their range possibly in response to climate change but not always from south to north. It would be possible to examine the years in which species have been recorded in various areas (using the 100km squares or grouped 100 km squares). Beware here, though, that new records in the north for given species are not a result just of visits by observers to places not visited before. This can be checked by tabulating broad areas where records of any species occur in a given year. Only then will it be clear if the 'new record' represents a potential spread of range rather than merely a spread of the range of the recorder.

Some slug species prefer habitats with rich soils – hence their abundance in gardens where soil is artificially richened by gardeners. Even urban areas can have 'rich' feeding grounds because of the amount of edible material that humans discard. Other species can thrive on poorer soils and a few are ubiquitous. Combining habitats into, say, three broad categories (e.g. Human, Woodland, Other) could indicate how species differ in habitat choice.

Further research