

Versioned Archive and Review of Biotic
Interactions and Taxon Names Found within
globalbioticinteractions/life4pollinators
hash://md5/426b82882cd3d460f3e7b4e18ee9e379

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Abstract

Life on Earth is sustained by complex interactions between organisms and their environment. These biotic interactions can be captured in datasets and published digitally. We present a review and archiving process for such an openly accessible digital interactions dataset of known origin and discuss its outcome. The dataset under review, named globalbioticinteractions/life4pollinators, has fingerprint hash://md5/426b82882cd3d460f3e7b4e18ee9e379, is 529KiB in size and contains 2,203 interactions with 1 unique type of association (e.g., visitsFlowersOf) between 446 primary taxa (e.g., *Apis mellifera*) and 487 associated taxa (e.g., Asteraceae). This report includes detailed summaries of interaction data, a taxonomic review from multiple catalogs, and an archived version of the dataset from which the reviews are derived.

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Introduction

Data Review and Archive

Data review and archiving can be a time-consuming process, especially when done manually. This review report aims to help facilitate both activities. It automates the archiving of datasets, including Darwin Core archives, and is a citable backup of a version of the dataset. Additionally, an automatic review of species interaction claims made in the dataset is generated and registered with Global Biotic Interactions (J. H. Poelen, Simons, and Mungall 2014).

This review includes summary statistics about, and observations about, the dataset under review :

(**article?**){Barberis_Bitonto_Costantino_Bianco_Birtele_Bonifacino_Cangelmi_Capò_Chroni_d'Agal_2025, title={Insect-flower interactions in the Mediterranean area: a Citizen Science dataset collated within the LIFE 4 Pollinators project}, volume={39}, url={https://www.pollinationecology.org/index.php/jpe/article/view/872}, DOI={10.26786/1920-7603(2025)872}, abstractNote={<p>Pollinators play a vital role in most terrestrial ecosystems, supporting wild plant communities and enhancing agricultural yields. However, despite their ecological and economic importance, they have been experiencing an alarming decline over the past decades. The Mediterranean region, known for harboring highly diverse communities of plants and pollinators, is particularly vulnerable due to intense anthropogenic pressures. Furthermore, the ecological roles of many floral visitors remain poorly understood, hindering conservation efforts. In response, in recent years, growing attention has been directed toward the contribution that citizens can give in support of pollinator research. An increasing number of projects have adopted a Citizen Science approach to enable large-scale data collection. The LIFE 4 Pollinators project

(LIFE18/GIE/IT/000755) “Involving people to protect wild bees and other pollinators in the Mediterranean” aims to promote the conservation of pollinating insects and entomophilous plants across the Mediterranean region by fostering progressive changes in human practices that threaten wild pollinators. In addition to the implementation of several actions to raise awareness, the project launched a web platform to collect photographic records of flower–insect interaction from the public. The platform is expected to remain active for at least ten years, during which we encourage continuing record submissions by interested bodies. With this data paper we are making the current dataset freely accessible to anyone, committing to periodic online updates.</p>}, journal={Journal of Pollination Ecology}, author={Barberis, Marta and Bitonto, Fortunato Fulvio and Costantino, Roberto and Bianco, Lorenzo and Birtele, Daniele and Bonifacino, Marco and Cangelmi, Giacomo and Capò, Miquel and Chroni, Athanasia and d’Agostino, Marco and et al.}, year={2025}, month={Nov.}, pages={306–315} } <https://github.com/globalbioticinteractions/life4pollinators/archive/2026-06-02T16:41:17.932Z> hash://md5/426b82882cd3d460f3e7b4e18

Methods

The review is performed through programmatic scripts that leverage tools like Preston (Elliott et al. 2025), Elton (Kuhn, Poelen, and Leinweber 2025), Nomer (Salim and Poelen 2025), globinizer (J. Poelen, Seltmann, and Mietchen 2024) combined with third-party tools like grep, mlr, tail and head.

Table 1: Tools used in this review process

tool name	version
preston	0.11.1
elton	0.16.11
nomer	0.6.5
globinizer	0.4.0
mlr	6.0.0
jq	1.6
yq	4.25.3
pandoc	3.1.6.1
duckdb	1.3.1
mapserver	7.6.4

The review process can be described in the form of the script below ¹.

¹Note that you have to first get the data (e.g., via `elton pull globalbioticinterac-`

```
# get versioned copy of the dataset (size approx. 529KiB) under review
elton pull globalbioticinteractions/life4pollinators

# generate review notes
elton review globalbioticinteractions/life4pollinators \
> review.tsv

# export indexed interaction records
elton interactions globalbioticinteractions/life4pollinators \
> interactions.tsv

# export names and align them with the Catalogue of Life using Nomer
elton names globalbioticinteractions/life4pollinators \
| nomer append col \
> name-alignment.tsv
```

or visually, in a process diagram.

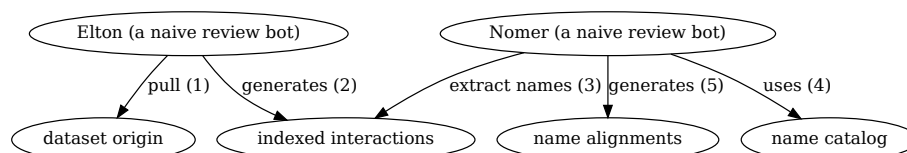


Figure 1: Review Process Overview

You can find a copy of the full review script at [check-data.sh](#). See also [GitHub](#) and [Codeberg](#).

Results

In the following sections, the results of the review are summarized ². Then, links to the detailed review reports are provided.

Files

An extensive list of files produced as part of the review process can be found in [Appendix A. Review Files](#).

tions/life4pollinators) before being able to generate reviews (e.g., `elton review globalbioticinteractions/life4pollinators`), extract interaction claims (e.g., `elton interactions globalbioticinteractions/life4pollinators`), or list taxonomic names (e.g., `elton names globalbioticinteractions/life4pollinators`)

²Disclaimer: The results in this review should be considered friendly, yet naive, notes from an unsophisticated robot. Please keep that in mind when considering the review results.

Archived Dataset

Note that *data.zip* file in this archive contains the complete, unmodified archived dataset under review.

Biotic Interactions

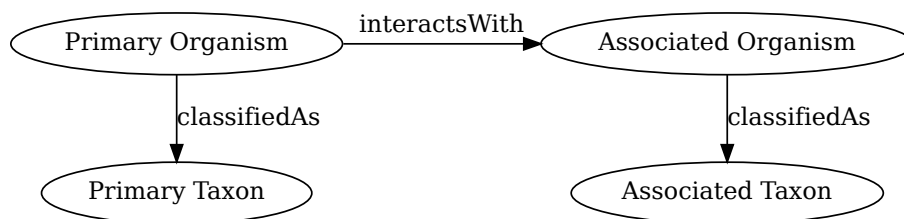


Figure 2: Biotic Interaction Data Model

In this review, biotic interactions (or biotic associations) are modeled as a primary (aka subject, source) organism interacting with an associate (aka object, target) organism. The dataset under review classified the primary/associate organisms with specific taxa. The primary and associate organisms The kind of interaction is documented as an interaction type.

The dataset under review, named `globalbioticinteractions/life4pollinators`, has fingerprint hash://md5/426b82882cd3d460f3e7b4e18ee9e379, is 529KiB in size and contains 2,203 interactions with 1 unique type of association (e.g., visits-FlowersOf) between 446 primary taxa (e.g., *Apis mellifera*) and 487 associated taxa (e.g., *Asteraceae*).

An exhaustive list of indexed interaction claims can be found in gzipped csv, tsv, geopackage and parquet archives. To facilitate discovery, a preview of claims available in the gzipped html page at `indexed-interactions.html.gz` are shown below.

The exhaustive list was used to create the following data summaries below.

sourceTaxonName	interactionTypeName	targetTaxonName	referenceCitation
-----------------	---------------------	-----------------	-------------------

Table 2: Sample of Indexed Interaction Claims

sourceTaxonName	interactionTypeName	targetTaxonName	referenceCitation
-----------------	---------------------	-----------------	-------------------

Iphiclides podalirius	visitsFlowersOf	Raphanus sp.	(article?) {Barberis_Bitonto_Costantino_Bianco et al. 2025, title={Insect-flower interactions in the Mediterranean area: a Citizen Science dataset collated within the LIFE 4 Pollinators project}, volume={39}, url={https://www.pollinationecology.org/index.php/Pollinators}, DOI={10.26786/1920-7603(2025)872}, abstract=Note={<p>>Pollinators play a vital role in most terrestrial ecosystems, supporting wild plant communities and enhancing agricultural yields. However, despite their ecological and economic importance, they have been experiencing an alarming decline over the past decades. The Mediterranean region, known for harboring highly diverse communities of plants and pollinators, is particularly vulnerable due to intense anthropogenic pressures. Furthermore, the}
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sourceTaxonName	interactionTypeName	targetTaxonName	referenceCitation
Eristalis tenax	visitsFlowersOf	Raphanus sp.	(article?) {Barberis_Bitonto_Costantino_Bianco et al. 2025, title={Insect-flower interactions in the Mediterranean area: a Citizen Science dataset collated within the LIFE 4 Pollinators project}, volume={39}, url={https://www.pollinationecology.org/index.php/doi/10.26786/1920-7603(2025)872}, abstract-Note={<p>Pollinators play a vital role in most terrestrial ecosystems, supporting wild plant communities and enhancing agricultural yields. However, despite their ecological and economic importance, they have been experiencing an alarming decline over the past decades. The Mediterranean region, known for harboring highly diverse communities of plants and pollinators, is particularly vulnerable due to intense anthropogenic pressures. Furthermore, the ecological roles of many floral visitors remain

sourceTaxonName	interactionTypeNamet	targetTaxonName	referenceCitation
Apis mellifera	visitsFlowersOf	Salvia officinalis	(article?) {Barberis_Bitonto_Costantino_Bianco et al. 2025, title={Insect-flower interactions in the Mediterranean area: a Citizen Science dataset collated within the LIFE 4 Pollinators project}, volume={39}, url={https://www.pollinationecology.org/index.php/doi/10.26786/1920-7603(2025)872}, abstract-Note={<p>Pollinators play a vital role in most terrestrial ecosystems, supporting wild plant communities and enhancing agricultural yields. However, despite their ecological and economic importance, they have been experiencing an alarming decline over the past decades. The Mediterranean region, known for harboring highly diverse communities of plants and pollinators, is particularly vulnerable due to intense anthropogenic pressures. Furthermore, the ecological roles of many floral visitors remain

sourceTaxonName	interactionTypeName	targetTaxonName	referenceCitation
Chrysotoxum sp.	visitsFlowersOf	Ranunculus sp.	(article?) {Barberis_Bitonto_Costantino_Bianchi_2025, title={Insect-flower interactions in the Mediterranean area: a Citizen Science dataset collated within the LIFE 4 Pollinators project}, volume={39}, url={https://www.pollinationecology.org/index.php/doi/10.26786/1920-7603(2025)872}, abstract-Note={<p>Pollinators play a vital role in most terrestrial ecosystems, supporting wild plant communities and enhancing agricultural yields. However, despite their ecological and economic importance, they have been experiencing an alarming decline over the past decades. The Mediterranean region, known for harboring highly diverse communities of plants and pollinators, is particularly vulnerable due to intense anthropogenic pressures. Furthermore, the ecological roles of many floral visitors remain

Table 3: Most Frequently Mentioned Interaction Types (up to 20 most frequent)

interactionTypeName	count
visitsFlowersOf	2203

Table 4: Most Frequently Mentioned Primary Taxa (up to 20 most frequent)

sourceTaxonName	count
<i>Apis mellifera</i>	190
<i>Oedemera</i> sp.	76
<i>Oxythyrea funesta</i>	64
<i>Andrena</i> sp.	61
<i>Bombus</i> sp.	56
Diptera	53
<i>Bombus terrestris</i>	45
<i>Lasioglossum</i> sp.	43
Mordellidae	42
<i>Episyrphus balteatus</i>	32
<i>Pygopleurus foina</i>	32
<i>Eulasia pareyssei</i>	31
Coleoptera	31
<i>Oedemera nobilis</i>	30
<i>Sphaerophoria scripta</i>	29
<i>Eucera</i> sp.	29
Hemiptera	29
<i>Oxythyrea</i> sp.	28
<i>Tropinota</i> sp.	26

Table 5: Most Frequently Mentioned Associate Taxa (up to 20 most frequent)

targetTaxonName	count
Asteraceae	146
<i>Coleostephus myconis</i>	144
<i>Cistus inflatus</i>	78
<i>Cistus salviifolius</i>	64
Apiaceae	59
<i>Galactites tomentosus</i>	55
<i>Glebionis coronaria</i>	55

targetTaxonName	count
Cistus sp.	52
Thapsia villosa	44
Cirsium filipendulum	39
Ranunculus sp.	33
Matricaria chamomilla	32
Cistus creticus	29
Leucanthemum merinoi	29
Malva sylvestris	26
Caprifoliaceae	23
Scabiosa sp.	22
Malva sp.	22
Papaver rhoeas	22

Table 6: Most Frequent Interactions between Primary and Associate Taxa (up to 20 most frequent)

sourceTaxonName	interactionTypeName	targetTaxonName	count
Mordellidae	visitsFlowersOf	Coleostephus myconis	20
Apis mellifera	visitsFlowersOf	Trigonella balansae	15
Pygopleurus foina	visitsFlowersOf	Papaver rhoeas	14
Rhagonycha sp.	visitsFlowersOf	Apiaceae	14
Oedemera sp.	visitsFlowersOf	Cistus inflatus	14
Hemiptera	visitsFlowersOf	Coleostephus myconis	13
Oxythyrea funesta	visitsFlowersOf	Cistus inflatus	13
Apis mellifera	visitsFlowersOf	Borago officinalis	12
Apis mellifera	visitsFlowersOf	Malva sylvestris	12
Pygopleurus foina	visitsFlowersOf	Glebionis coronaria	11
Andrena sp.	visitsFlowersOf	Asteraceae	10
Diptera	visitsFlowersOf	Thapsia villosa	10
Eulasia pareyssei	visitsFlowersOf	Asteraceae	10
Papilio machaon	visitsFlowersOf	Cirsium filipendulum	9
Oedemera sp.	visitsFlowersOf	Cistus salviifolius	9
Halictus sp.	visitsFlowersOf	Galactites tomentosus	9
Diptera	visitsFlowersOf	Coleostephus myconis	8
Sphaerophoria scripta	visitsFlowersOf	Coleostephus myconis	8
Oedemera sp.	visitsFlowersOf	Galactites tomentosus	7

Interaction Networks

The figures below provide a graph view on the dataset under review. The first shows a summary network on the kingdom level, and the second shows how interactions on the family level. It is important to note that both network

graphs were first aligned taxonomically using the Catalogue of Life. Please refer to the original (or verbatim) taxonomic names for a more original view on the interaction data.



Figure 3: Interactions on taxonomic kingdom rank as interpreted by the Catalogue of Life download svg

You can download the indexed dataset under review at indexed-interactions.csv.gz. A tab-separated file can be found at indexed-interactions.tsv.gz

Geospatial Distribution

If geospatial information was extracted from the dataset under review, the map below will show their distribution. These maps were generated using MapServer (McKenna et al. 2025) tools configured via map configuration `indexed-interactions.map` :

```

MAP
  SIZE 1600 800
  EXTENT -180 -90 180 90
  PROJECTION
    "init=epsg:4326"
  END
  LAYER # MODIS WMS map from NASA
    NAME "modis_nasa"
    TYPE RASTER
    OFFSITE 0 0 0
    STATUS ON
    CONNECTIONTYPE WMS
    CONNECTION "https://gibs.earthdata.nasa.gov/wms/epsg4326/best/wms.cgi?"

  METADATA
    "wms_srs" "EPSG:4326"
    "wms_name" "OSM_Land_Water_Map"
    "wms_server_version" "1.1.1"
    "wms_format" "image/jpeg"
  END
  CLASS
    STYLE
  
```

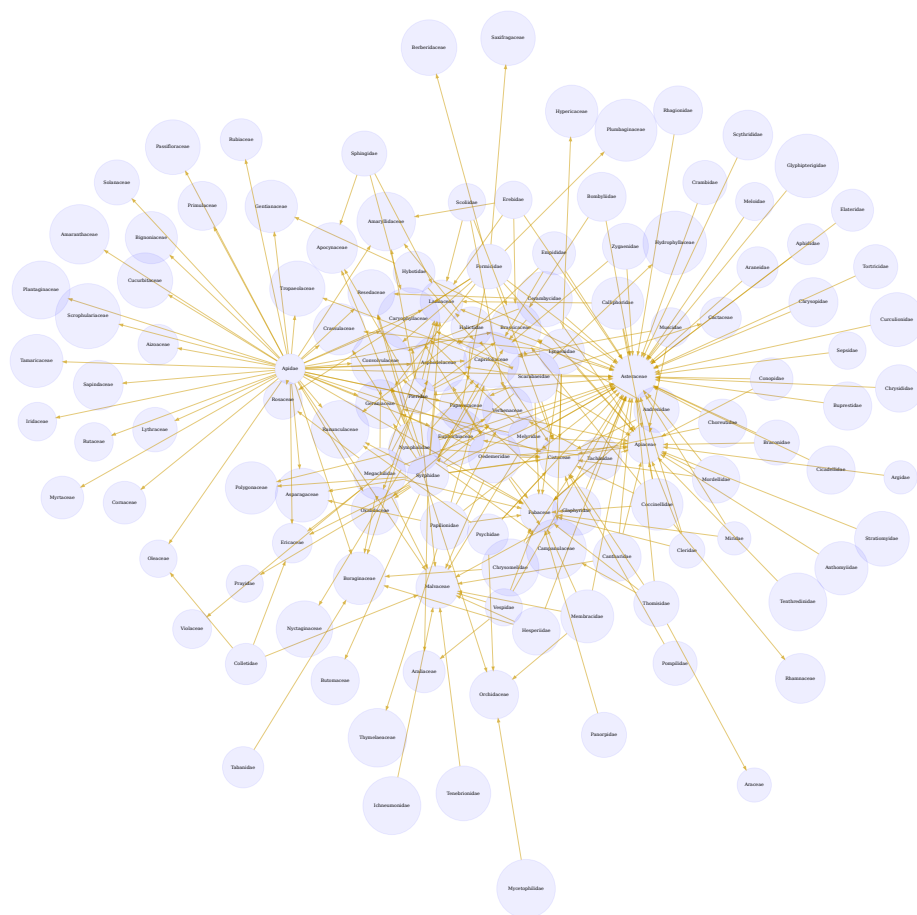


Figure 4: Interactions on the taxonomic family rank as interpreted by the Catalogue of Life. [download svg](#)

```

        COLOR          232 232 232
        OUTLINECOLOR 32 32 32
    END
END
END
LAYER
    NAME "indexed-interactions"
    TYPE POLYGON
    STATUS ON
    CONNECTIONTYPE OGR
    CONNECTION "indexed-interactions-h3.gpkg"
    DATA "indexed-interactions-h3"
    CLASS
        STYLE
            COLORRANGE 253.0 231.0 37.0 32.0 164.0 134.0
            DATARANGE 0.3010299956639812 2.8603380065709936
            RANGEITEM "log_number_of_records"
            OUTLINECOLOR 0 0 0
        END
    END
END
END

```

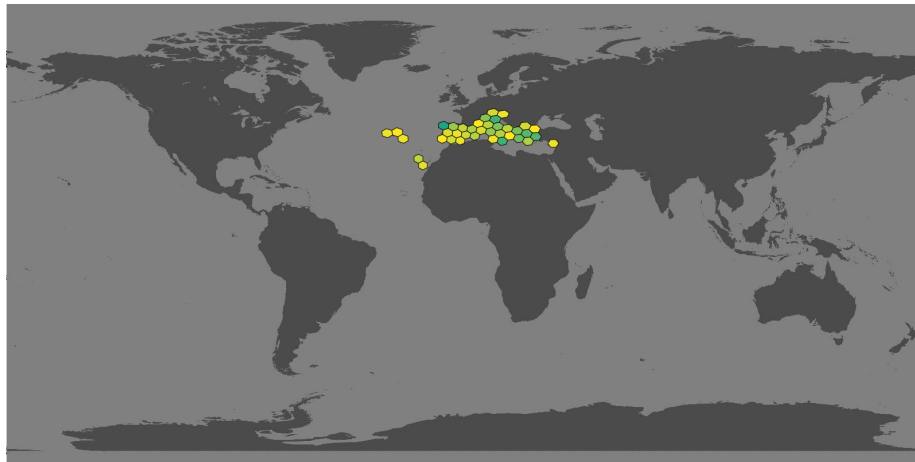


Figure 5: Hexagonal grid cells indicate that interactions claims are available for selected geospatial area: light yellow means relatively fewer claims, dark green relatively more claims.

Associated data can be found in the geopackage files at indexed-interactions.gpkg for point data and indexed-interactions-h3.gpkg for data clustered in geospatial h3 hexagonals.

Learn more about the structure of this download at GloBI website, by opening a GitHub issue, or by sending an email.

Another way to discover the dataset under review is by searching for it on the GloBI website.

Taxonomic Alignment

As part of the review, all names are aligned against various name catalogs (e.g., col, ncbi, discoverlife, gbif, itis, wfo, mdd, tpt, pbdb, and worms). These alignments can help review name usage or aid in selecting of a suitable taxonomic name resource.

Table 7: Sample of Name Alignments

providedName	relationName	resolvedCatalogName	resolvedName
Abutilon grandiflorum	HAS_ACCEPTED_NAME	col	Abutilon grandiflorum
Acer campestre	HAS_ACCEPTED_NAME	col	Acer campestre
Achillea	HAS_ACCEPTED_NAME	col	Achillea
Aconitum	HAS_ACCEPTED_NAME	col	Aconitum

Table 8: Distribution of Taxonomic Ranks of Aligned Names by Catalog. Names that were not aligned with a catalog are counted as NAs. So, the total number of unaligned names for a catalog will be listed in their NA row.

resolvedCatalogName	resolvedRank	count
col	NA	40
col	class	1
col	family	53
col	genus	248
col	order	7
col	species	550
col	subfamily	16
col	subgenus	2
col	subspecies	37
col	superfamily	3
col	tribe	11
col	variety	2
discoverlife	NA	857
discoverlife	species	64
gbif	NA	49
gbif	class	1

resolvedCatalogName	resolvedRank	count
gbif	family	55
gbif	genus	253
gbif	order	8
gbif	species	556
gbif	subspecies	36
gbif	variety	3
itis	NA	327
itis	family	53
itis	genus	206
itis	order	8
itis	species	306
itis	subclass	1
itis	subfamily	12
itis	suborder	2
itis	subspecies	1
itis	superfamily	3
itis	superorder	1
itis	variety	1
mdd	NA	921
ncbi	NA	90
ncbi	class	1
ncbi	cohort	1
ncbi	family	53
ncbi	genus	242
ncbi	order	8
ncbi	species	504
ncbi	subfamily	13
ncbi	subgenus	13
ncbi	suborder	1
ncbi	subspecies	2
ncbi	superfamily	4
pbdb	NA	726
pbdb	class	1
pbdb	family	55
pbdb	genus	104
pbdb	infraclass	1
pbdb	infraorder	1
pbdb	order	8
pbdb	species	8
pbdb	subfamily	13
pbdb	suborder	3
pbdb	superfamily	4
pbdb	tribe	1
tpt	NA	921

resolvedCatalogName	resolvedRank	count
wfo	NA	454
wfo	family	9
wfo	genus	140
wfo	species	313
wfo	subspecies	16
wfo	variety	1
worms	NA	634
worms	class	1
worms	family	45
worms	genus	119
worms	order	8
worms	species	110
worms	subfamily	1
worms	suborder	1
worms	subspecies	3
worms	superfamily	1

Table 9: Name relationship types per catalog. Name relationship type “NONE” means that a name was not recognized by the associated catalog. “SAME_AS” indicates either a “HAS_ACCEPTED_NAME” or “SYNONYM_OF” name relationship type. We recognize that “SYNONYM_OF” encompasses many types of nomenclatural synonymies (ICZN 1999) (e.g., junior synonym, senior synonyms).

resolvedCatalogName	relationName	count
col	HAS_ACCEPTED_NAME	941
col	SYNONYM_OF	301
col	NONE	40
discoverlife	NONE	867
discoverlife	HAS_ACCEPTED_NAME	65
discoverlife	SYNONYM_OF	13
discoverlife	HOMONYM_OF	7
gbif	HAS_ACCEPTED_NAME	1089
gbif	SYNONYM_OF	392
gbif	NONE	49
itis	NONE	331
itis	HAS_ACCEPTED_NAME	586
itis	SYNONYM_OF	33
mdd	NONE	933
ncbi	SAME_AS	841
ncbi	NONE	91

resolvedCatalogName	relationName	count
ncbi	SYNONYM_OF	19
pdbb	NONE	733
pdbb	HAS_ACCEPTED_NAME	205
pdbb	SYNONYM_OF	8
tpt	NONE	933
wfo	HAS_ACCEPTED_NAME	465
wfo	NONE	465
wfo	HAS_UNCHECKED_NAME	38
wfo	SYNONYM_OF	80
worms	NONE	641
worms	HAS_ACCEPTED_NAME	311
worms	SYNONYM_OF	39

Table 10: List of Available Name Alignment Reports

catalog name	alignment results
col	associated names alignments report in gzipped html, csv, and tsv)
ncbi	associated names alignments report in gzipped html, csv, and tsv)
discoverlife	associated names alignments report in gzipped html, csv, and tsv)
gbif	associated names alignments report in gzipped html, csv, and tsv)
itis	associated names alignments report in gzipped html, csv, and tsv)
wfo	associated names alignments report in gzipped html, csv, and tsv)
mdd	associated names alignments report in gzipped html, csv, and tsv)
tpt	associated names alignments report in gzipped html, csv, and tsv)
pdbb	associated names alignments report in gzipped html, csv, and tsv)
worms	associated names alignments report in gzipped html, csv, and tsv)

Additional Reviews

Elton, Nomer, and other tools may have difficulties interpreting existing species interaction datasets. Or, they may misbehave, or otherwise show unexpected behavior. As part of the review process, detailed review notes are kept that

document possibly misbehaving, or confused, review bots. An sample of review notes associated with this review can be found below.

Table 11: First few lines in the review notes.

reviewDate	reviewCommentType	reviewComment
2026-06-03T15:02:03Z	note	invalid date string [2021-05-20*]
2026-06-03T15:02:03Z	note	invalid date string [2021-05-20*]
2026-06-03T15:02:03Z	note	invalid date string [2021-05-21*]
2026-06-03T15:02:03Z	note	invalid date string [2021-05-21*]

In addition, you can find the most frequently occurring notes in the table below.

Table 12: Most frequently occurring review notes, if any.

reviewComment	count
invalid date string [2023-05-21*]	172
invalid date string [2023-05-22*]	146
found invalid location: [invalid (latitude, longitude) = (na,na)]	115
invalid date string [2023-05-20*]	110

For additional information on review notes, please have a look at the first 500 Review Notes in html format or the download full gzipped csv or tsv archives.

GloBI Review Badge

As part of the review, a review badge is generated. This review badge can be included in webpages to indicate the review status of the dataset under review.



Figure 6: Picture of a GloBI Review Badge ³

Note that if the badge is green, no review notes were generated. If the badge is yellow, the review bots may need some help with interpreting the species interaction data.

³Up-to-date status of the GloBI Review Badge can be retrieved from the GloBI Review Depot

GloBI Index Badge

If the dataset under review has been registered with GloBI, and has been successfully indexed by GloBI, the GloBI Index Status Badge will turn green. This means that the dataset under review was indexed by GloBI and is available through GloBI services and derived data products.



Figure 7: Picture of a GloBI Index Badge ⁴

If you'd like to keep track of reviews or index status of the dataset under review, please visit GloBI's dataset index ⁵ for badge examples.

Discussion

This review and archive provides a means of creating citable versions of datasets that change frequently. This may be useful for dataset managers, including natural history collection data managers, as a backup archive of a shared Darwin Core archive. It also serves as a means of creating a trackable citation for the dataset in an automated way, while also including some information about the contents of the dataset.

This review aims to provide a perspective on the dataset to aid in understanding of species interaction claims discovered. However, it is important to note that this review does *not* assess the quality of the dataset. Instead, it serves as an indication of the open-ness⁶ and FAIRness (Wilkinson et al. 2016; Trekels et al. 2023) of the dataset: to perform this review, the data was likely openly available, **F**indable, **A**ccessible, **I**nteroperable and **R**eusable. The current Open-FAIR assessment is qualitative, and a more quantitative approach can be implemented with specified measurement units.

This report also showcases the reuse of machine-actionable (meta)data, something highly recommended by the FAIR Data Principles (Wilkinson et al. 2016). Making (meta)data machine-actionable enables more precise processing by computers, enabling even naive review bots like Nomer and Elton to interpret the data effectively. This capability is crucial for not just automating the generation of reports, but also for facilitating seamless data exchanges, promoting interoperability.

⁴Up-to-date status of the GloBI Index Badge can be retrieved from GloBI's API

⁵At time of writing (2026-06-03) the version of the GloBI dataset index was available at <https://globalbioticinteractions.org/datasets>

⁶According to <http://opendefinition.org/>: "Open data is data that can be freely used, re-used and redistributed by anyone - subject only, at most, to the requirement to attribute and sharealike."

Acknowledgements

We thank the many humans that created us and those who created and maintained the data, software and other intellectual resources that were used for producing this review. In addition, we are grateful for the natural resources providing the basis for these human and bot activities. Also, thanks to <https://github.com/zygoballus> for helping improve the layout of the review tables.

Author contributions

Nomer was responsible for name alignments. Elton carried out dataset extraction, and generated the review notes. Preston tracked, versioned, and packaged, the dataset under review.

Appendix A. Review Files

The following files are produced in this review:

filename	description
biblio.bib	list of bibliographic reference of this review
check-dataset.sh	data review workflow/process as expressed in a bash script
data.zip	a versioned archive of the data under review
HEAD	the digital signature of the data under review
index.docx	review in MS Word format
index.html	review in HTML format
index.md	review in Pandoc markdown format
index.pdf	review in PDF format
indexed-citations.csv.gz	list of distinct reference citations for reviewed species interaction claims in gzipped comma-separated values file format
indexed-citations.html.gz	list of distinct reference citations for reviewed species interactions claims in gzipped html file format
indexed-citations.tsv.gz	list of distinct reference citations for reviewed species interaction claims in gzipped tab-separated values format

filename	description
indexed-interactions-col-family-col-family.svg	network diagram showing the taxon family to taxon family interaction claims in the dataset under review as interpreted by the Catalogue of Life via Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024)
indexed-interactions-col-kingdom-col-kingdom.svg	network diagram showing the taxon kingdom to taxon kingdom interaction claims in the dataset under review as interpreted by the Catalogue of Life via Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024)
indexed-interactions.csv.gz	species interaction claims indexed from the dataset under review in gzipped comma-separated values format
indexed-interactions.html.gz	species interaction claims indexed from the dataset under review in gzipped html format
indexed-interactions.tsv.gz	species interaction claims indexed from the dataset under review in gzipped tab-separated values format
indexed-interactions.parquet	species interaction claims indexed from the dataset under review in Apache Parquet format
indexed-interactions.png	species interaction claims indexed from the dataset under review plotted on a map
indexed-interactions.map	mapserver configuration to plot species interaction claims indexed from the dataset under review on a map
indexed-interactions.gpkg	species interaction claims indexed from the dataset under review in GeoPackage format
indexed-interactions-h3.gpkg	geospatially clustered h3 species interaction claims indexed from the dataset under review in GeoPackage format
indexed-interactions-sample.csv	list of species interaction claims indexed from the dataset under review in gzipped comma-separated values format

filename	description
indexed-interactions-sample.html	first 500 species interaction claims indexed from the dataset under review in html format
indexed-interactions-sample.tsv	first 500 species interaction claims indexed from the dataset under review in tab-separated values format
indexed-names.csv.gz	taxonomic names indexed from the dataset under review in gzipped comma-separated values format
indexed-names.html.gz	taxonomic names found in the dataset under review in gzipped html format
indexed-names.tsv.gz	taxonomic names found in the dataset under review in gzipped tab-separated values format
indexed-names.parquet	taxonomic names found in the dataset under review in Apache Parquet format
indexed-names-resolved-col.csv.gz	taxonomic names found in the dataset under review aligned with the Catalogue of Life as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-col.html.gz	taxonomic names found in the dataset under review aligned with the Catalogue of Life as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-col.tsv.gz	taxonomic names found in the dataset under review aligned with the Catalogue of Life as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-col.parquet	taxonomic names found in the dataset under review aligned with the Catalogue of Life as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format

filename	description
indexed-names-resolved-discoverlife.csv.gz	taxonomic names found in the dataset under review aligned with Discover Life bee species checklist as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-discoverlife.html.gz	taxonomic names found in the dataset under review aligned with Discover Life bee species checklist as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-discoverlife.tsv.gz	taxonomic names found in the dataset under review aligned with Discover Life bee species checklist as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-discoverlife.parquet	taxonomic names found in the dataset under review aligned with Discover Life bee species checklist as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-gbif.csv.gz	taxonomic names found in the dataset under review aligned with GBIF Backbone Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-gbif.html.gz	taxonomic names found in the dataset under review aligned with GBIF Backbone Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format

filename	description
indexed-names-resolved-gbif.tsv.gz	taxonomic names found in the dataset under review aligned with GBIF Backbone Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-gbif.parquet	taxonomic names found in the dataset under review aligned with GBIF Backbone Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-itis.csv.gz	taxonomic names found in the dataset under review aligned with Integrated Taxonomic Information System (ITIS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-itis.html.gz	taxonomic names found in the dataset under review aligned with Integrated Taxonomic Information System (ITIS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-itis.tsv.gz	taxonomic names found in the dataset under review aligned with Integrated Taxonomic Information System (ITIS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-itis.parquet	taxonomic names found in the dataset under review aligned with Integrated Taxonomic Information System (ITIS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format

filename	description
indexed-names-resolved-mdd.csv.gz	taxonomic names found in the dataset under review aligned with the Mammal Diversity Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-mdd.html.gz	taxonomic names found in the dataset under review aligned with Mammal Diversity Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-mdd.tsv.gz	taxonomic names found in the dataset under review aligned with Mammal Diversity Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-mdd.parquet	taxonomic names found in the dataset under review aligned with Mammal Diversity Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-ncbi.csv.gz	taxonomic names found in the dataset under review aligned with the NCBI Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-ncbi.html.gz	taxonomic names found in the dataset under review aligned with the NCBI Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format

filename	description
indexed-names-resolved-ncbi.tsv.gz	taxonomic names found in the dataset under review aligned with the NCBI Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-ncbi.parquet	taxonomic names found in the dataset under review aligned with the NCBI Taxonomy as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-pbdb.csv.gz	taxonomic names found in the dataset under review aligned with the Paleobiology Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-pbdb.html.gz	taxonomic names found in the dataset under review aligned with Paleobiology Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-pbdb.tsv.gz	taxonomic names found in the dataset under review aligned with Paleobiology Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-pbdb.parquet	taxonomic names found in the dataset under review aligned with Paleobiology Database as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format

filename	description
indexed-names-resolved-tpt.csv.gz	taxonomic names found in the dataset under review aligned with the Terrestrial Parasite Tracker (TPT) Taxonomic Resource as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-tpt.html.gz	taxonomic names found in the dataset under review aligned with the Terrestrial Parasite Tracker (TPT) Taxonomic Resource as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-tpt.tsv.gz	taxonomic names found in the dataset under review aligned with the Terrestrial Parasite Tracker (TPT) Taxonomic Resource as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-tpt.parquet	taxonomic names found in the dataset under review aligned with the Terrestrial Parasite Tracker (TPT) Taxonomic Resource as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-wfo.csv.gz	taxonomic names found in the dataset under review aligned with the World of Flora Online as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-wfo.html.gz	taxonomic names found in the dataset under review aligned with the World of Flora Online as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format

filename	description
indexed-names-resolved-wfo.tsv.gz	taxonomic names found in the dataset under review aligned with the World of Flora Online as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-wfo.parquet	taxonomic names found in the dataset under review aligned with the World of Flora Online as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-resolved-worms.csv.gz	taxonomic names found in the dataset under review aligned with the World Register of Marine Species (WoRMS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped comma-separated values format
indexed-names-resolved-worms.html.gz	taxonomic names found in the dataset under review aligned with the World Register of Marine Species (WoRMS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped html format
indexed-names-resolved-worms.tsv.gz	taxonomic names found in the dataset under review aligned with the World Register of Marine Species (WoRMS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in gzipped tab-separated values format
indexed-names-resolved-worms.parquet	taxonomic names found in the dataset under review aligned with the World Register of Marine Species (WoRMS) as accessed through the Nomer Corpus of Taxonomic Resources (J. H. (ed.). Poelen 2024) in Apache Parquet format
indexed-names-sample.csv	first 500 taxonomic names found in the dataset under review in comma-separated values format

filename	description
indexed-names-sample.html	first 500 taxonomic names found in the dataset under review in html format
indexed-names-sample.tsv	first 500 taxonomic names found in the dataset under review in tab-separated values format
interaction.svg	diagram summarizing the data model used to index species interaction claims
nanopub-sample.trig	first 500 species interaction claims as expressed in the nanopub format (Kuhn and Dumontier 2014)
nanopub.trig.gz	species interaction claims as expressed in the nanopub format (Kuhn and Dumontier 2014)
process.svg	diagram summarizing the data review processing workflow
prov.nq	origin of the dataset under review as expressed in rdf/nquads
review.csv.gz	review notes associated with the dataset under review in gzipped comma-separated values format
review.html.gz	review notes associated with the dataset under review in gzipped html format
review.tsv.gz	review notes associated with the dataset under review in gzipped tab-separated values format
review-sample.csv	first 500 review notes associated with the dataset under review in comma-separated values format
review-sample.html	first 500 review notes associated with the dataset under review in html format
review-sample.tsv	first 500 review notes associated with the dataset under review in tab-separated values format
review.svg	a review badge generated as part of the dataset review process
zenodo.json	metadata of this review expressed in Zenodo record metadata

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