A Review of Biotic Interactions and Taxon Names Found in globalbioticinteractions/fsca hash://md5/399ad74ffba1a12a5f595d4be1441e7a

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https://github.com/globalbioticinteractions/fsca/issues

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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/fsca, has fingerprint hash://md5/399ad74ffba1a12a5f595d4be1441e7a, is 4.23MiB in size and contains 941 interactions with 1 unique type of association (e.g., interactsWith) between 52 primary taxa (e.g., Hylaeus) and 144 associated taxa (e.g., Baccharis). This report includes detailed summaries of interaction data, a taxonomic review from multiple catalogs, and an archived version of the dataset from which the reviews are derived.

Contents

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:

> Florida State Collection of Arthropods https://github.com/globalbioticinteractions/fsca/archive/2cdcf9475b
> 2025-04-05T00:13:33.447Z hash://md5/399ad74ffba1a12a5f595d4be1441e7a

For additional metadata related to this dataset, please visit https://github.com /globalbioticinteractions/fsca and inspect associated metadata files including, but not limited to, *README.md*, *eml.xml*, and/or *globi.json*.

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	0.10.1
elton	0.15.9
nomer	0.5.13

tool name	version
globinizer	0.4.0
mlr	6.0.0
jq	1.6
yq	4.25.3
pandoc	3.1.6.1

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

```
# get versioned copy of the dataset (size approx. 4.23MiB) under review
elton pull globalbioticinteractions/fsca

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

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

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

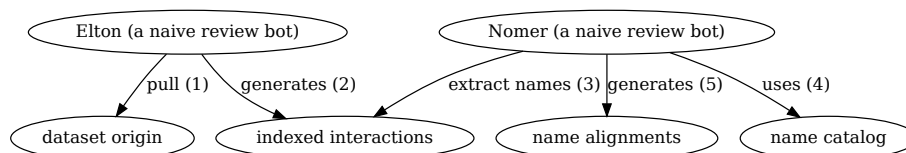or visually, in a process diagram.

Figure 1: Review Process Overview

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

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[1]Note that you have to first get the data (e.g., via elton pull globalbioticinteractions/fsca) before being able to generate reviews (e.g., elton review globalbioticinteractions/fsca), extract interaction claims (e.g., elton interactions globalbioticinteractions/fsca), or list taxonomic names (e.g., elton names globalbioticinteractions/fsca)

Results

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

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 Preston (Elliott et al. 2025) 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
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)

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[2]Disclaimer: 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.

filename	description
indexed-interactions-col-kingdom-col-kingdom.svg	network diagram showing the taxon kingdom to taxon kingom 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-sample.csv	list of species interaction claims indexed from the dataset under review in gzipped comma-separated values format
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-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

filename	description
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-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-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

filename	description
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
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-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-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

filename	description
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-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
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-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

filename	description
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-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-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

filename	description
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
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-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-sample.csv	first 500 taxonomic names found in the dataset under review in comma-separated values format
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

filename	description
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

Archived Dataset

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

Biotic Interactions

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
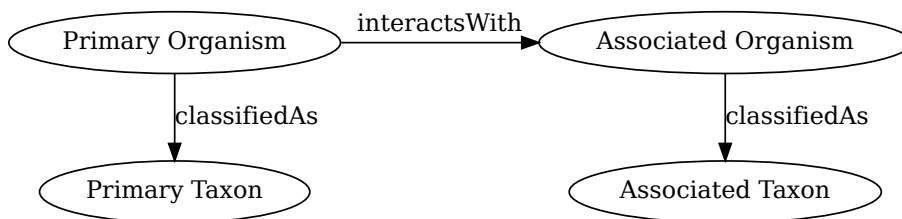
Figure 2: Biotic Interaction Data Model

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/fsca, has fingerprint hash://md5/399ad74ffba1a12a5f595d4be1441e7a, is 4.23MiB in size and contains 941 interactions with 1 unique type of association (e.g., interactsWith) between 52 primary taxa (e.g., Hylaeus) and 144 associated taxa (e.g., Baccharis).

An exhaustive list of indexed interaction claims can be found in gzipped csv and tsv 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.

Table 3: Sample of Indexed Interaction Claims

sourceTaxonName	interactionTypeName	targetTaxonName	referenceCitation
Hylaeus	interactsWith	Daucus carota	https://ecdysis.org/collections/individual/index.p
Hylaeus	interactsWith	Daucus carota	https://ecdysis.org/collections/individual/index.p
Hylaeus	interactsWith	Aruncus aruncus	https://ecdysis.org/collections/individual/index.p
Hylaeus	interactsWith	Aruncus aruncus	https://ecdysis.org/collections/individual/index.p

Table 4: Most Frequently Mentioned Interaction Types (up to 20 most frequent)

interactionTypeName	count
interactsWith	941

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

sourceTaxonName	count
Hylaeus	296
Bombus fervidus	163
Lasioglossum imitatum	79
Nomiocolletes arnaui	62
Lonchopria semicyaneaus	44
Agapostemon texanus	43
Nomiocolletes	33
Bombus impatiens	27
Hylaeus ornatus	22
Hylaeus schwarzii	21
Hylaeus formosus	16
Augochlora	11
Bombus californicus	10
Lasioglossum bruneri	9
Brachyglossula leucothorax	8
Xylocopa virginica virginica	8
Hesperapis	7
Anthidiellum notatum notatum	7
Hylaeus hyalinatus	6

Table 6: Most Frequently Mentioned Associate Taxa (up to 20 most frequent)

targetTaxonName	count
Baccharis	134
Cirsium	71
Caragana	54
Aruncus aruncus	38
Hydrangea arborescens	34
Acacia	34
Apocynum cannabinum	32
Solidago	29
Chrysothamnus	23
Juncus & wild flower	19
Mentzelia pumila	19
Micromeria brownei	18
Helianthus	18
Metopium toxiferum	16
Daucus carota	14

targetTaxonName	count
Apocynum	13
Astragalus	13
Melilotus alba	12
Wild lilac	12

Table 7: Most Frequent Interactions between Primary and Associate Taxa (up to 20 most frequent)

sourceTaxonName	interactionTypeName	targetTaxonName	count
Bombus fervidus	interactsWith	Cirsium	57
Nomiocolletes arnaui	interactsWith	Baccharis	54
Bombus fervidus	interactsWith	Caragana	54
Lonchopria semicyaneaus	interactsWith	Baccharis	44
Hylaeus	interactsWith	Acacia	34
Hylaeus	interactsWith	Aruncus aruncus	32
Nomiocolletes	interactsWith	Baccharis	29
Lasioglossum imitatum	interactsWith	Apocynum cannabinum	28
Hylaeus	interactsWith	Hydrangea arborescens	23
Hylaeus	interactsWith	Solidago	21
Hylaeus	interactsWith	Juncus & wild flower	19
Agapostemon texanus	interactsWith	Mentzelia pumila	19
Hylaeus ornatus	interactsWith	Micromeria brownei	17
Bombus fervidus	interactsWith	Helianthus	17
Hylaeus formosus	interactsWith	Metopium toxiferum	16
Hylaeus	interactsWith	Apocynum	13
Bombus fervidus	interactsWith	Astragalus	13
Hylaeus	interactsWith	Wild lilac	12
Hylaeus	interactsWith	Eriogonum	11

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.

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

Learn more about the structure of this download at GloBI website, by opening a GitHub issue, or by sending an email.
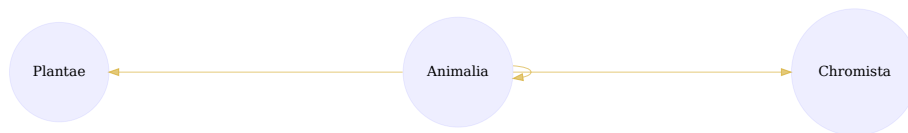
Figure 3: Interactions on taxonomic kingdom rank as interpreted by the Catalogue of Life download svg
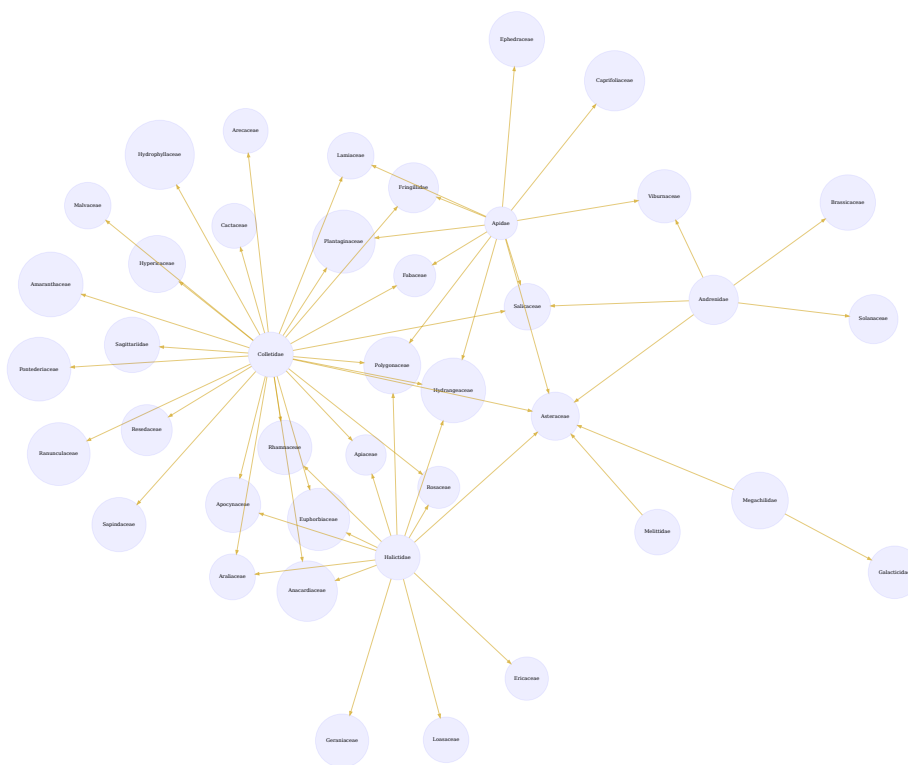

Figure 4: Interactions on the taxonomic family rank as interpreted by the Catalogue of Life. download svg

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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 8: Sample of Name Alignments

providedName	relationName	resolvedCatalogName	resolvedName
Viii	NONE	col	Viii
Hylaeus	HAS_ACCEPTED_NAME	col	Hylaeus
Leioproctus	HAS_ACCEPTED_NAME	col	Leioproctus
Lonchopria	HAS_ACCEPTED_NAME	col	Lonchopria

Table 9: 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	48
col	genus	56
col	section	1
col	species	84
col	subgenus	1
col	subspecies	3
col	variety	1
discoverlife	NA	152
discoverlife	species	41
gbif	NA	41
gbif	genus	59
gbif	species	87
gbif	subspecies	4
gbif	variety	2
itis	NA	52
itis	genus	52
itis	species	82
itis	subspecies	4
itis	variety	2
mdd	NA	192

resolvedCatalogName	resolvedRank	count
ncbi	NA	68
ncbi	genus	54
ncbi	species	69
ncbi	subgenus	2
ncbi	subspecies	2
pbdb	NA	166
pbdb	genus	23
pbdb	species	3
pbdb	suborder	1
tpt	NA	191
tpt	genus	1
wfo	NA	92
wfo	genus	48
wfo	species	52
wfo	subspecies	1
wfo	variety	1
worms	NA	149
worms	genus	28
worms	species	15

Table 10: 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	NONE	49
col	HAS_ACCEPTED_NAME	131
col	SYNONYM_OF	36
discoverlife	NONE	155
discoverlife	HAS_ACCEPTED_NAME	40
discoverlife	SYNONYM_OF	10
discoverlife	HOMONYM_OF	1
gbif	NONE	42
gbif	HAS_ACCEPTED_NAME	157
gbif	SYNONYM_OF	48
itis	NONE	53
itis	HAS_ACCEPTED_NAME	126
itis	SYNONYM_OF	19

resolvedCatalogName	relationName	count
mdd	NONE	194
ncbi	NONE	70
ncbi	SAME_AS	121
ncbi	SYNONYM_OF	9
pbdb	NONE	168
pbdb	HAS_ACCEPTED_NAME	26
pbdb	SYNONYM_OF	1
tpt	NONE	193
tpt	HAS_ACCEPTED_NAME	1
wfo	NONE	93
wfo	SYNONYM_OF	23
wfo	HAS_ACCEPTED_NAME	84
wfo	HAS_UNCHECKED_NAME	7
worms	NONE	151
worms	HAS_ACCEPTED_NAME	42
worms	SYNONYM_OF	7

Table 11: 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)
pbdb	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 12: First few lines in the review notes.

reviewDate	reviewCommentType	reviewComment
2025-04-10T21:58:52Z	note	found unsupported interaction type with name: [[Venzuela]
2025-04-10T21:58:52Z	note	found unsupported interaction type with name: [[Venzuela]
2025-04-10T21:58:52Z	note	found unsupported interaction type with name: [[Venzuela]
2025-04-10T21:58:52Z	note	found unsupported interaction type with name: [[Venzuela]

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

Table 13: Most frequently occurring review notes, if any.

reviewComment	count
found unsupported interaction type with name: [[Florida]	38
found unsupported interaction type with name: [[Venzuela]	10

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 5: Picture of a GloBI Review Badge [3]

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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.

GloBI Index Badge

If the dataset under review has been registered with GloBI, and has been succesfully 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.
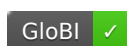

Figure 6: Picture of a GloBI Index Badge [4]

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-ness[6] 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).

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

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

[5] At time of writing (2025-04-11) the version of the GloBI dataset index was available at https://globalbioticinteractions.org/datasets

[6] According 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."

Making (meta)data machine-actionable enables more precise procesing 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.

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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.

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