

A Review of Biotic Interactions and Taxon Names Found in ninacourlee/Andromeda-polifolia-fungal-consortia hash://md5/d5c5c34de5446e9ea5e7aca7531b841e

by Nomer, Elton and Preston, three naive review bots
review@globalbioticinteractions.org
<https://globalbioticinteractions.org/contribute>
<https://github.com/ninacourlee/Andromeda-polifolia-fungal-consortia/issues>

2025-04-18

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 ninacourlee/Andromeda-polifolia-fungal-consortia, has fingerprint hash://md5/d5c5c34de5446e9ea5e7aca7531b841e, is 75.2KiB in size and contains 130 interactions with 2 unique types of associations (e.g., hasHost) between 84 primary taxa (e.g., *Protoventuria rhododendri* (Höhn.) M.E.Barr) and 9 associated taxa (e.g., *Andromeda polifolia* L.). This report includes detailed summaries of interaction data, a taxonomic review from multiple catalogs, and an archived version of the dataset from which the reviews are derived.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	2
Data Review and Archive	2
Methods	2
Results	4
Files	4
Archived Dataset	11
Biotic Interactions	11

Interaction Networks	15
Taxonomic Alignment	16
Additional Reviews	19
GloBI Review Badge	20
GloBI Index Badge	20
Discussion	21
Acknowledgements	21
Author contributions	22
References	22

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:

Filippova N. 2021. The fungal consortium of *Andromeda polifolia* in bog habitats <https://zenodo.org/records/5632779/files/ninacourlee/Andromeda-polifolia-fungal-consortia-v1.0.1.zip> 2025-04-12T15:11:38.458Z
hash://md5/d5c5c34de5446e9ea5e7aca7531b841e

For additional metadata related to this dataset, please visit <https://github.com/ninacourlee/Andromeda-polifolia-fungal-consortia> 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
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. 75.2KiB) under review
elton pull ninacourlee/Andromeda-polifolia-fungal-consortia

# generate review notes
elton review ninacourlee/Andromeda-polifolia-fungal-consortia\
> review.tsv

# export indexed interaction records
elton interactions ninacourlee/Andromeda-polifolia-fungal-consortia\
> interactions.tsv

# export names and align them with the Catalogue of Life using Nomer
elton names ninacourlee/Andromeda-polifolia-fungal-consortia\
| nomer append col\
> name-alignment.tsv
```

or visually, in a process diagram.

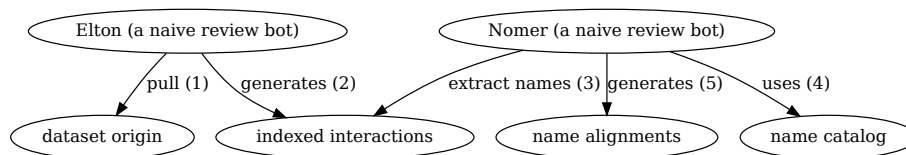


Figure 1: Review Process Overview

¹Note that you have to first get the data (e.g., via `elton pull ninacourlee/Andromeda-polifolia-fungal-consortia`) before being able to generate reviews (e.g., `elton review ninacourlee/Andromeda-polifolia-fungal-consortia`), extract interaction claims (e.g., `elton interactions ninacourlee/Andromeda-polifolia-fungal-consortia`), or list taxonomic names (e.g., `elton names ninacourlee/Andromeda-polifolia-fungal-consortia`)

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

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)

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.

filename	description
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-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

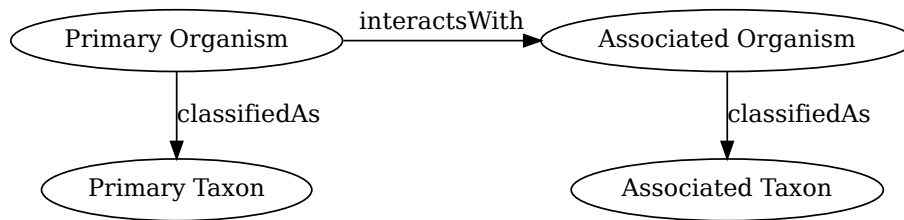


Figure 2: Biotic Interaction Data Model

organisms with specific taxa. The primary and associate organisms The kind of interaction is documented as an interaction type.

The dataset under review, named ninacourlee/Andromeda-polifolia-fungal-consortia, has fingerprint hash://md5/d5c5c34de5446e9ea5e7aca7531b841e, is 75.2KiB in size and contains 130 interactions with 2 unique types of associations (e.g., hasHost) between 84 primary taxa (e.g., Protoventuria rhododendri (Höhn.) M.E.Barr) and 9 associated taxa (e.g., Andromeda polifolia L.).

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
Ainsworthia zanthoxyli Bat. & C.A.A.Costa	parasiteOf	Andromeda polifolia L.	Filippova, N., Thormann, M., others, 2015. The fungal consortium of Andromeda polifolia in bog habitats. Mires and Peat 16, 1.
Allantophomopsis cytispora (Fr.) Petr.	parasiteOf	Andromeda polifolia L.	Filippova, N., Thormann, M., others, 2015. The fungal consortium of Andromeda polifolia in bog habitats. Mires and Peat 16, 1.

sourceTaxonName	interactionTypeName	targetTaxonName	referenceCitation
Asteridium lepidigenum (Ellis) Sacc.	parasiteOf	Andromeda polifolia L.	Filippova, N., Thormann, M., others, 2015. The fungal consortium of Andromeda polifolia in bog habitats. Mires and Peat 16, 1.
Asterina Lév., 1845	parasiteOf	Andromeda polifolia L.	Filippova, N., Thormann, M., others, 2015. The fungal consortium of Andromeda polifolia in bog habitats. Mires and Peat 16, 1.

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

interactionTypeName	count
hasHost	106
parasiteOf	24

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

sourceTaxonName	count
Protoventuria rhododendri (Höhn.) M.E.Barr	5
Godronia cassandrae Peck	4
Hyaloscypha leuconica (Cooke ex Stev.) Nannf.	4
Septonema secedens Corda	4
Gibbera andromedae (Rehm) E.Müll. & Arx	3
Physalospora hyperborea Bäumler	3
Physalospora vaccinii (Shear) Arx & E.Müll.	3
Rhytisma andromedae (Pers.) Fr.	3
Lophodermium sphaerioides (Alb. & Schwein.) Rehm	3
Allophylaria basalifusca Graddon	3
Wentomyces sibiricus (Petr.) E.Müll.	3
Dothideales	3

sourceTaxonName	count
Hilberina breviseta (P.Karst.) Huhndorf & A.N.Mill.	3
Coccomyces duplicarioides Sherwood	2
Exobasidium sundstroemii Nannf.	2
Sphaeria Haller, 1768	2
Venturia Sacc., 1882	2
Lophodermium Chevall., 1826	2
Hyalopeziza tianschanica Raitv.	2

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

targetTaxonName	count
Andromeda polifolia L.	93
Chamaedaphne calyculata (L.) Moench	12
Oxycoccus palustris Pers.	9
Ledum palustre L.	8
Betula nana L.	4
Eriophorum vaginatum L.	1
Vaccinium uliginosum L.	1
Rhytisma andromedae (Pers.) Fr.	1
Rubus chamaemorus L.	1

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

sourceTaxonName	interactionType	targetTaxonName	count
Coccomyces duplicarioides Sherwood	hasHost	Andromeda polifolia L.	2
Exobasidium sundstroemii Nannf.	parasiteOf	Andromeda polifolia L.	2
Godronia cassandrae Peck	hasHost	Andromeda polifolia L.	2
Physalospora hyperborea Bäumler	hasHost	Andromeda polifolia L.	2
Physalospora vaccinii (Shear) Arx & E.Müll.	hasHost	Andromeda polifolia L.	2

sourceTaxonName	interactionTypeNam	targetTaxonName	count
Rhytisma andromedae (Pers.) Fr.	parasiteOf	Andromeda polifolia L.	2
Sphaeria Haller, 1768	hasHost	Andromeda polifolia L.	2
Venturia Sacc., 1882	parasiteOf	Andromeda polifolia L.	2
Ainsworthia zanthoxyli Bat. & C.A.A.Costa	parasiteOf	Andromeda polifolia L.	1
Allantophomopsis cytispora (Fr.) Petr.	parasiteOf	Andromeda polifolia L.	1
Asteridium lepidigenum (Ellis) Sacc.	parasiteOf	Andromeda polifolia L.	1
Asterina Lév., 1845	parasiteOf	Andromeda polifolia L.	1
Bionectria ochroleuca (Schwein.) Schroers & Samuels	hasHost	Andromeda polifolia L.	1
Chrysomyxa cassandrae (Gobi) Tranzschel	parasiteOf	Andromeda polifolia L.	1
Cladosporium Link, 1816	hasHost	Andromeda polifolia L.	1
Coniochaeta arctispora (Cooke & Ellis) M.E.Barr	hasHost	Andromeda polifolia L.	1
Diaporthe eres Nitschke	hasHost	Andromeda polifolia L.	1
Diaporthe Nitschke, 1870	hasHost	Andromeda polifolia L.	1
Durandiella andromedae (Schwein.) J.W.Groves	hasHost	Andromeda polifolia L.	1

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

Figure 4: Interactions on the taxonomic family 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](#)

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 8: Sample of Name Alignments

providedName	relationName	resolvedCatalogName	resolvedName
Oxycoccus	SYNONYM_OF	col	Vaccinium
palustris			oxycoccus
Eriophorum	HAS_ACCEPTED_NAME	col	Eriophorum
vaginatum			vaginatum
Ledum palustre	SYNONYM_OF	col	Rhododendron
			groenlandicum
Ledum palustre	SYNONYM_OF	col	Rhododendron
			tomentosum

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	7
col	family	2
col	genus	17
col	order	1
col	species	65
discoverlife	NA	92
gbif	class	1
gbif	family	2
gbif	form	1
gbif	genus	17
gbif	order	1
gbif	species	71
gbif	subspecies	2
itis	NA	75
itis	family	2
itis	genus	6
itis	order	1
itis	species	8
mdd	NA	92
ncbi	NA	41
ncbi	family	2
ncbi	genus	16
ncbi	order	1
ncbi	species	32
pbdb	NA	85
pbdb	family	1
pbdb	genus	3
pbdb	species	3
tpt	NA	92
wfo	NA	84
wfo	species	8
worms	NA	75
worms	family	2
worms	genus	12
worms	order	1
worms	species	2

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	SYNONYM_OF	9
col	HAS_ACCEPTED_NAME	82
col	NONE	7
discoverlife	NONE	94
gbif	SYNONYM_OF	27
gbif	HAS_ACCEPTED_NAME	97
itis	SYNONYM_OF	3
itis	HAS_ACCEPTED_NAME	15
itis	NONE	76
mdd	NONE	94
ncbi	SYNONYM_OF	4
ncbi	SAME_AS	51
ncbi	NONE	41
pbdb	HAS_ACCEPTED_NAME	6
pbdb	NONE	87
pbdb	SYNONYM_OF	1
tpt	NONE	94
wfo	SYNONYM_OF	2
wfo	HAS_ACCEPTED_NAME	6
wfo	HAS_UNCHECKED_NAME	1
wfo	NONE	86
worms	NONE	76
worms	HAS_ACCEPTED_NAME	19

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)

catalog name	alignment results
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)
tppt	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
2025-04-18T13:09:31Z	note	failed to lookup [GEONAMES:1503772] because of: [resource [http://api.geonames.org/getJSON?formatted=true&geo not found]
2025-04-18T13:09:31Z	note	failed to lookup [GEONAMES:1503772] because of: [resource [http://api.geonames.org/getJSON?formatted=true&geo not found]
2025-04-18T13:09:31Z	note	failed to lookup [GEONAMES:1503772] because of: [resource [http://api.geonames.org/getJSON?formatted=true&geo not found]

reviewDate	reviewCommentType	reviewComment
2025-04-18T13:09:31Z	note	failed to lookup [GEONAMES:1503772] because of: [resource [http://api.geonames.org/getJSON?formatted=true&geonameId=1503772&username=globi&style=full] not found]

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
failed to lookup [GEONAMES:1503772] because of: [resource [http://api.geonames.org/getJSON?formatted=true&geonameId=1503772&username=globi&style=full] not found]	56

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

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 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.

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

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



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-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.

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

⁵At time of writing (2025-04-18) 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.”

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.

References

- Elliott, Michael, Jorrit Poelen, Icaro Alzuru, Emilio Berti, and partha04patel. 2025. “Bio-Guoda/Preston: 0.10.5.” Zenodo. <https://doi.org/10.5281/zenodo.14662206>.
- ICZN. 1999. “International Code of Zoological Nomenclature.” The International Trust for Zoological Nomenclature, London, UK. <https://www.iczn.org/the-code/the-code-online/>.
- Kuhn, Tobias, and Michel Dumontier. 2014. “Trusty URIs: Verifiable, Immutable, and Permanent Digital Artifacts for Linked Data.” In *The Semantic Web: Trends and Challenges*, edited by Valentina Presutti, Claudia d’Amato, Fabien Gandon, Mathieu d’Aquin, Steffen Staab, and Anna Tordai, 395–410. Cham: Springer International Publishing.
- Kuhn, Tobias, Jorrit Poelen, and Katrin Leinweber. 2025. “Globalbioticinteractions/Elton: 0.15.1.” Zenodo. <https://doi.org/10.5281/zenodo.14927734>.
- Poelen, Jorrit H. (ed.). 2024. “Nomer Corpus of Taxonomic Resources Hash://Sha256/ B60c0d25a16ae77b24305782017b1a270b79b5d1746f832650 F2027ba536e276 Hash://Md5/17f1363a277ee0e4ecaf1b91c665e47e.” Zenodo. <https://doi.org/10.5281/zenodo.12695629>.
- Poelen, Jorrit H., James D. Simons, and Chris J. Mungall. 2014. “Global Biotic Interactions: An Open Infrastructure to Share and Analyze Species-Interaction Datasets.” *Ecological Informatics* 24 (November): 148–59. <https://doi.org/10.1016/j.ecoinf.2014.08.005>.
- Poelen, Jorrit, Katja Seltsmann, and Daniel Mitchen. 2024. “Globalbioticinteractions/Globinizer: 0.4.0.” Zenodo. <https://doi.org/10.5281/zenodo.10647565>.
- Salim, José Augusto, and Jorrit Poelen. 2025. “Globalbioticinteractions/Nomer: 0.5.15.” Zenodo. <https://doi.org/10.5281/zenodo.14893840>.
- Trekels, Maarten, Debora Pignatari Drucker, José Augusto Salim, Jeff Ollerton, Jorrit Poelen, Filipi Miranda Soares, Max Rünzel, Muo Kasina, Quentin Groom, and Mariano Devoto. 2023. “WorldFAIR Project (D10.1) Agriculture-related pollinator data standards use cases report.” Zenodo. <https://doi.org/10.5281/zenodo.8176978>.
- Wilkinson, Mark D., Michel Dumontier, IJsbrand Jan Aalbersberg, Gabrielle Appleton, Myles Axton, Arie Baak, Niklas Blomberg, et al. 2016. “The FAIR Guiding Principles for Scientific Data Management and Stewardship.” *Scientific Data* 3 (1). <https://doi.org/10.1038/sdata.2016.18>.