# A Review of Biotic Interactions and Taxon Names Found in globalbioticinteractions/mpm hash://md5/0cb785ba9ceef583d6b9a9071ad0c225

by Nomer, Elton and Preston, three naive review bots review@globalbioticinteractions.org https://globalbioticinteractions.org/contribute https://github.com/globalbioticinteractions/mpm/issues

#### 2025-04-11

#### 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/mpm, has fingerprint hash://md5/0cb785ba9ceef583d6b9a9071ad0c225, is 18.1MiB in size and contains 666 interactions with 3 unique types of associations (e.g., interactsWith) between 230 primary taxa (e.g., Anisota senatoria) and 307 associated taxa (e.g., At flowers.). This report includes detailed summaries of interaction data, a taxonomic review from multiple catalogs, and an archived version of the dataset from which the reviews are derived.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:

MPM Lepidoptera of North America Network (LepNet) -Version 1.3 https://ipt.mpm.edu/archive.do?r=lepnet 2025-04-05T01:30:42.496Z MPM Terrestrial Parasite Tracker (TPT) -Version 1.11 https://ipt.mpm.edu/archive.do?r=tpt 2025-04-05T01:30:42.496Z hash://md5/0cb785ba9ceef583d6b9a9071ad0c225

For additional metadata related to this dataset, please visit https://github.com/globalbioticinteractions/mpm 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. 18.1MiB) under review
elton pull globalbioticinteractions/mpm
```

```
# generate review notes
elton review globalbioticinteractions/mpm\
 > review.tsv
# export indexed interaction records
```

```
# export names and align them with the Catalogue of Life using Nomer
elton names globalbioticinteractions/mpm\
```

- | nomer append col\
- > name-alignment.tsv

or visually, in a process diagram.

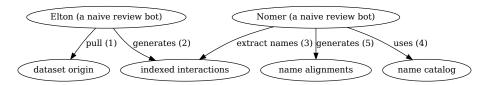


Figure 1: Review Process Overview

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

<sup>&</sup>lt;sup>1</sup>Note that you have to first get the data (e.g., via elton pull globalbioticinteractions/mpm) before being able to generate reviews (e.g., elton review globalbioticinteractions/mpm), extract interaction claims (e.g., elton interactions globalbioticinteractions/mpm), or list taxonomic names (e.g., elton names globalbioticinteractions/mpm)

## 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)	

 $<sup>^{2}</sup>$ 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	l- network diagram showing the taxo kingdom to taxon kingom interacti claims in the dataset under review interpreted by the Catalogue of Lif via Nomer Corpus of Taxonomic Resources (J. H. (ed. ). Poelen 202	
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. ). Poology 2024) in gripped html format
indexed-names-resolved-pbdb.tsv.gz	Poelen 2024) in gzipped html format 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. ).
indexed-names-resolved-tpt.tsv.gz	Poelen 2024) in gzipped html format 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
indexed-names-sample.csv	tab-separated values format first 500 taxonomic names found in the dataset under review in comma separated values format
indexed-names-sample.html	comma-separated values format 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
interaction.svg	tab-separated values format 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
1010903.015.52	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

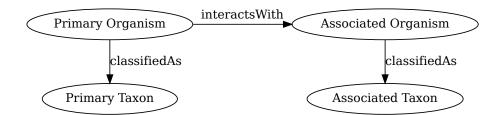


Figure 2: Biotic Interaction Data Model

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/mpm, has fingerprint hash://md5/0cb785ba9ceef583d6b9a9071ad0c225, is 18.1MiB in size and contains 666 interactions with 3 unique types of associations (e.g., interactsWith) between 230 primary taxa (e.g., Anisota senatoria) and 307 associated taxa (e.g., At flowers.).

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.

sourceTaxonName	interaction Type Name arget Taxon Name		referenceCitation
Wyeomyia smithii	interactsWith	From Pitcher Plant cup.	dd99e7ac-88e8- 403e-9440- 97e291eb42df
Wyeomyia smithii	interactsWith	In Pitcher Plant leaves.	06dfe2c8-ce4b- 4ede-93cf- 299fa891c291
Wyeomyia smithii	interactsWith	In Pitcher Plant leaves.	1c9995da-b9f2- 420e-a465- 31130cc1c927
Culicidae	interactsWith	Found on Silphium tere- binthinaceum.	c21d269d-ef2b- 4711-b412- b0c52228b566

Table 3: Sample of Indexed Interaction Claims

interactionTypeName	count
interactsWith	640
adjacentTo	18
eats	8

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

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

sourceTaxonName	count
Anisota senatoria	28
Amphion floridensis	21
Atalopedes campestris	19
Yponomeuta padella	17
Achlyodes pallida	15
Prochoerodes lineola	15
Papilio polyxenes asterius	14
Hemaris diffinis	12
Papilio brevicauda brevicauda	9
Hyles gallii	9
Hyles lineata	9
Papilio glaucus	8
Amorpha juglandis	8
Papilio cresphontes	8
Nastra julia	8
Lymantria dispar	8
Papilio brevicauda bretonensis	7
Lintneria eremitus	7
Actias luna	7

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

targetTaxonName	count
At flowers.	48
On oak.	29
Reared on Ligusticum scoticum.	18
Locality label reads at porch light or flowers.	18
On flowers.	12

targetTaxonName	count
On Euonymus tree.	10
On tree.	9
On scrub oak.	9
Flowers.	8
Found on silver linden trees.	8
Woodbine	8
Epilobium.	8
Bred from red pepper.	7
On tree trunk.	7
At lilacs.	6
On garden flowers.	6
Ex pupa on wild cherry twigs.	6
Visiting Cnidoscolus multilobus.	6
On juniper.	6

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

sourceTaxonName	interactionTypeN	am¢argetTaxonName	count
Anisota senatoria	interactsWith	On oak.	23
Prochoerodes	interactsWith	Locality label	13
lineola		reads at porch	
		light or flowers.	
Yponomeuta	interactsWith	On Euonymus	10
padella		tree.	
Papilio	interactsWith	Reared on	9
brevicauda		Ligusticum	
brevicauda		scoticum.	
Atalopedes	interactsWith	At flowers.	8
campestris			
Nastra julia	interactsWith	At flowers.	8
Lymantria dispar	interactsWith	Found on silver	8
		linden trees.	
Amphion	interactsWith	Woodbine	8
floridensis			
Amphion	interactsWith	Epilobium.	8
floridensis			
Idaea bonifata	interactsWith	Bred from red	7
		pepper.	
Gluphisia severa	interactsWith	On tree trunk.	7
Nastra lherminier	interactsWith	At flowers.	7

sourceTaxonName	interactionTypeNa	m¢argetTaxonName	count
Papilio	interactsWith	Reared on	6
brevicauda		Ligusticum	
bretonensis		scoticum.	
Archips	interactsWith	Ex pupa on wild	6
cerasivorana		cherry twigs.	
Thyridopteryx	interactsWith	On juniper.	6
ephemeraeformis			
Papilio polyxenes	interactsWith	On carrot.	5
asterius			
Hyles gallii	interactsWith	Bred from	5
		fireweed.	
Achlyodes pallida	interactsWith	On citrus.	5
Yponomeuta	interactsWith	On Euonymus sp.	5
padella			

#### 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.

providedName	relationName	resolvedCatalogNan	neresolvedName
Th instar fed prickly ash	NONE	col	Th instar fed prickly ash
Abaeis nicippe Bromeliad Achlyodes busirus heros	HAS_ACCEPTED NONE HAS_ACCEPTED	col	Abaeis nicippe Bromeliad Achlyodes busirus heros

Table 8: Sample of Name Alignments

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	$\operatorname{resolvedRank}$	count
col	NA	239
col	family	1
col	genus	29
col	kingdom	1
col	species	208
col	subspecies	3
col	variety	1
discoverlife	NA	482
gbif	NA	209
gbif	family	1
gbif	genus	30
gbif	kingdom	1
gbif	species	222
gbif	subspecies	19
gbif	variety	1
itis	NA	244
itis	family	1
itis	genus	27
itis	kingdom	1
itis	species	190
itis	subspecies	16

resolvedCatalogName	$\operatorname{resolvedRank}$	count
itis	tribe	1
itis	variety	1
mdd	NA	481
ncbi	NA	228
ncbi	family	1
ncbi	genus	27
ncbi	species	216
ncbi	subspecies	9
ncbi	varietas	1
pbdb	NA	464
pbdb	family	1
pbdb	genus	13
pbdb	kingdom	1
pbdb	species	2
tpt	NA	481
wfo	NA	438
wfo	genus	21
wfo	phylum	1
wfo	species	21
worms	ŇĂ	446
worms	family	1
worms	genus	17
worms	kingdom	1
worms	species	15
worms	subspecies	1

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	280
$\operatorname{col}$	HAS_ACCEPTED_NAME	248
col	SYNONYM_OF	28
discoverlife	NONE	537
gbif	NONE	250
gbif	HAS_ACCEPTED_NAME	291
gbif	SYNONYM_OF	55

resolvedCatalogName	relationName	count
itis	NONE	285
itis	HAS_ACCEPTED_NAME	245
itis	SYNONYM_OF	7
mdd	NONE	536
ncbi	NONE	274
ncbi	SYNONYM_OF	8
ncbi	SAME_AS	255
ncbi	COMMON_NAME_OF	1
pbdb	NONE	509
pbdb	HAS_ACCEPTED_NAME	27
pbdb	SYNONYM_OF	6
tpt	NONE	536
wfo	NONE	483
wfo	HAS_ACCEPTED_NAME	49
wfo	HAS_UNCHECKED_NAME	3
wfo	SYNONYM_OF	4
worms	NONE	491
worms	HAS_ACCEPTED_NAME	44
worms	SYNONYM_OF	2

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)

catalog name	alignment results
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
2025-04-11T16:06:43Z	summary	https://github.com/globalbioticinteractions/mpm/archi
2025-04-11T16:06:43Z	summary	666 interaction(s)
2025-04-11T16:06:43Z	summary	0 note(s)
2025-04-11T16:06:43Z	summary	10 info(s)

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

: Most frequently occurring review notes, if any.

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.

review 🗸

Figure 5: Picture of a GloBI Review Badge <sup>3</sup>

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.

 $<sup>^{3}\</sup>mathrm{Up}\text{-to-date}$  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 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 <sup>4</sup>

If you'd like to keep track of reviews or index status of the dataset under review, please visit GloBI's dataset index <sup>5</sup> 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<sup>6</sup> 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.

 $<sup>^4\</sup>mathrm{Up}\text{-to-date}$  status of the GloBI Index Badge can be retrieved from GloBI's API

 $<sup>^5\</sup>mathrm{At}$  time of writing (2025-04-11) the version of the GloBI dataset index was available at https://globalbioticinteractions.org/datasets

<sup>&</sup>lt;sup>6</sup>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."

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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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