

# Making parasite-host associations visible in TPT

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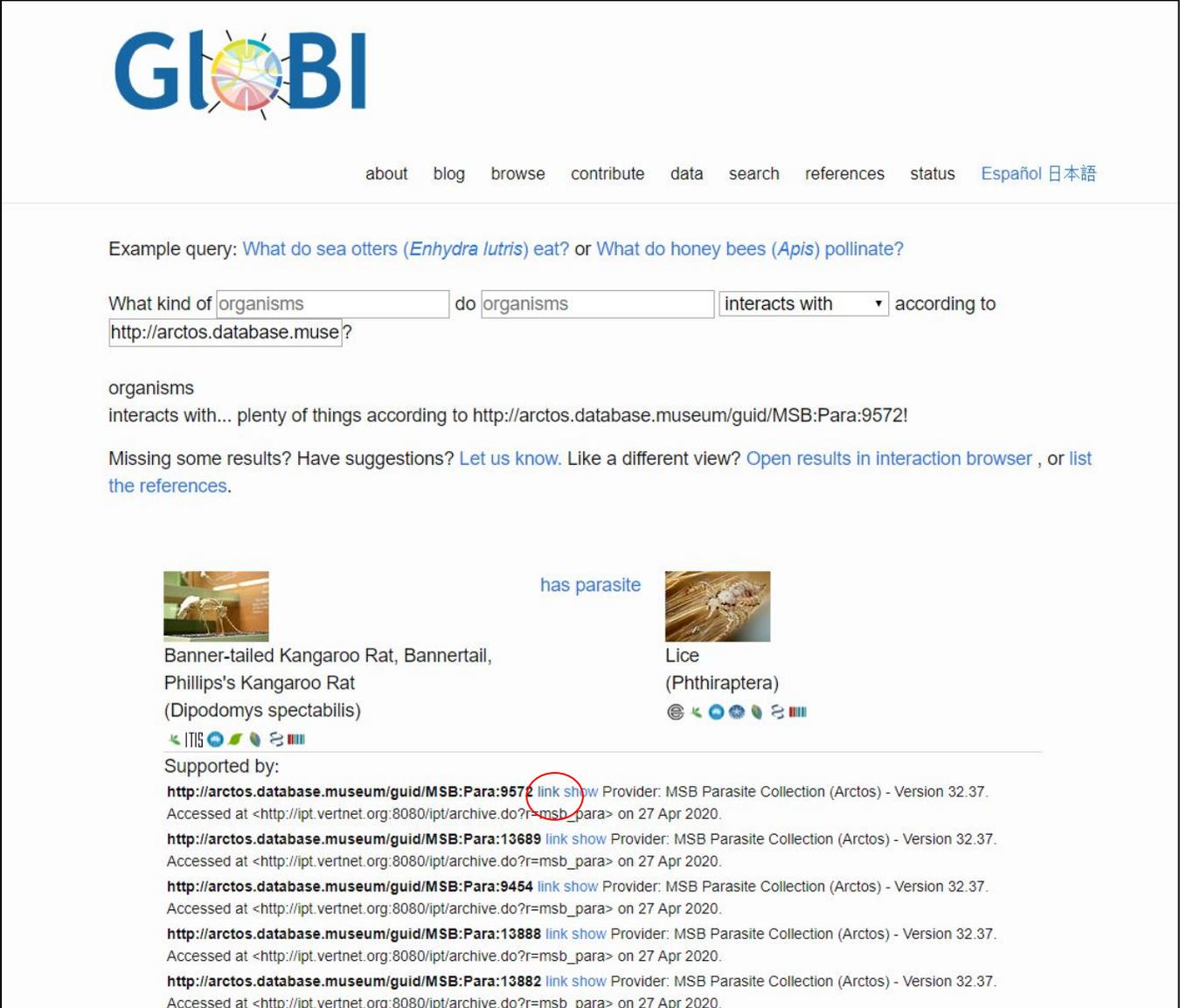


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- Review of GloBI
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- Data transcription guidelines
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- Examples of association data entry by platform
- Interaction terms and GloBI mapping
- Data sharing, use and review

- Global Biotic Interactions (GloBI) is a data integration tool that indexes existing species interaction datasets, literature, and specimen records from collections
- Searches can be done on taxa, for either hosts or parasites, the type of interaction, and the data source
- Results show instances of support for that interaction between two taxa, including links to specimen records in natural history collections
- Specimen citations contain links to full specimen occurrence records available online

# What is GloBI: A Review



The screenshot displays the GloBI website interface. At the top, the logo features the word "GloBI" with a colorful globe icon. Below the logo is a navigation menu with links for "about", "blog", "browse", "contribute", "data", "search", "references", "status", and language options "Español" and "日本語".

An example query is shown: "What do sea otters (*Enhydra lutris*) eat? or What do honey bees (*Apis*) pollinate?". Below this, a search form is filled with "What kind of organisms do organisms interacts with according to http://arctos.database.muse?".

The results section shows "organisms interacts with... plenty of things according to http://arctos.database.museum/guid/MSB:Para:9572!". A link is provided: "Missing some results? Have suggestions? [Let us know](#). Like a different view? [Open results in interaction browser](#) , or [list the references](#)."

Two taxonomic entries are displayed side-by-side:

- Left entry:** Banner-tailed Kangaroo Rat, Bannertail, Phillips's Kangaroo Rat (*Dipodomys spectabilis*). It includes a small image of the rat and social media sharing icons.
- Right entry:** Lice (Phthiraptera). It includes a small image of lice and social media sharing icons.

The relationship between the two is labeled "has parasite".

At the bottom, a "Supported by:" section lists several specimen records with their respective URLs and access dates. One URL, <http://arctos.database.museum/guid/MSB:Para:9572>, is circled in red.

# What is GloBI: A Review

Division of Parasites  
Museum of Southwestern Biology

username [ ] password [ ]  
[Log In](#) or [Create Account](#)

[Search](#) [Portals](#) [My Stuff](#) [About/Help](#)

**MSB:Para:9572** *Phthiraptera* **Sevilleta National Wildlife Refuge, Five Points Larrea, Web 2** whole organism  
<< [Return to results](#)  
North America, United States, New Mexico, Socorro County, Sevilleta National Wildlife Refuge  
1991, season 1, trapnight 1 (1991-06-04) [Comment or report bad data \[0\]\[0\]](#)  
[MSB Parasites](#)

[expand all](#) | [collapse all](#)

**Identifications**  
[Phthiraptera](#)  
Animalia; Arthropoda; Insecta; Phthiraptera; Phthiraptera  
Identified by Wade D. Wilson on 2000-01-01  
Nature of ID: unknown  
Remarks: IDs made by Murray Daily, Wade Wilson, Michael Patrick and others.; Former nature\_of\_id: legacy.

**Media**

**Location (1 Events)**  
[BerkeleyMapper](#)

**Determination Type:** collection  
assigned by Mariel L. Campbell on 2012-11-15  
**Higher Geography:** [North America, United States, New Mexico, Socorro County, Sevilleta National Wildlife Refuge](#)  
[more](#)  
**Verbatim Locality:** 5plarrea, web 2, trap 70  
**Specific Locality:** Sevilleta National Wildlife Refuge, Five Points Larrea, Web 2  
**Event Remarks:** mlc: some trap numbers have been truncated from original value; check locality, date, and trap number against MSB Mammal host record  
**Locality Remarks:** mlc: georeference from LTER database refers to center stake of sampling web  
**Collecting Source:** wild caught  
**Event Date:** 1991-06-04  
Verbatim Date: 1991, season 1, trapnight 1  
**Verification Status:** [unverified](#) [Define](#)

**Coordinates:** 34.331126 / -106.732365  
Error: 100 m  
Georeference Source: Sevilleta LTER website metadata  
Georeference Protocol: not recorded

  
map key/tools

**Collector(s)**  
[Sevilleta Long-term Ecological Research Project](#)

**Identifiers**  
NK: 24070

**Relationships** [Find All](#) | [Find parasite of](#)  
*(parasite of)* [MSB:Mamm:67785](#)  
family@2020-03-14: Heteromyidae  
identification@2020-03-14: Dipodomys spectabilis  
locality@2020-03-14: North America, United States, New Mexico, Socorro County: SEVILLETA NATIONAL WILDLIFE REFUGE, 5 POINTS LARREA

**Links**  
[GBIF Occurrence](#)  
[DigBio Occurrence](#)  
[GloBI](#)

**Parts** [Details](#)

Part Name	Condition	Disposition	Qty	Remarks
whole organism	unchecked	unknown	10	

**Attributes**  
location in host: body surface  
unknown, 1991-06-04  
verbatim host ID: Dipodomys spectabilis  
unknown, 1991-06-04  
verbatim host sex: female  
unknown, 1991-06-04

**Remarks:** na

**Accession**  
[View 2012.003.Para](#)

**Usage**  
Contributed By Project: [Sevilleta Long Term Ecological Research](#)

Bidirectional links between GloBI and specimen records

# Specimen-level Data Transcription and Interpretation Facilitated by GloBI

## Label Data Transcription

Enter verbatim data - notes field or other depending on platform/workflows

**\*Optional Step in Transcription Process: Data interpretation for GloBI mapping**

## Collections Assessment (Start Here)

Develop workflows for collections with (or without) association/multi taxon label data

Interpret association data using terms and definitions from translation tables. Document usage in a notes field and add new terms to TPT document if needed

## Use, Data Review and Use

Collection managers,  
Students, Ecologists,  
Evolutionary Biologists,  
Agencies  
...many more

## Data Aggregation and Sharing

SCAN,  
Institutional IPTs,  
GBIF, iDigBio,  
GloBI, etc.



## Data transcription to delivery feedback cycle

1. Use guidelines presented here to assess collections and determine collection specific workflow for entering data. **(Collections Assessment)**
2. Enter data into database, verbatim field is essential, but controlled vocabularies may also be used in some data platforms. Follow current document for entering additional property data. **(Data Transcription)**
3. Optional step in transcription process: Using the tables provided, characterize the type of association from specimen label data and transcribe it into an appropriate data field depending on the platform you are using. See the examples provided for possible fields for interaction data; this process may vary by database platform. **(Data Transcription)**

\*Alternatively, linkages to GloBI can be established from verbatim data as long as the fields where data are being stored are kept consistent **(Data interpretation for GloBI mapping)**

4. Aggregate and deliver data to SCAN in order to provide GloBI index endpoints. **(Sharing Data)**
5. TPT will review submitted data to GloBI and provide reviews to data providers to refine mapping to terms as more data become available. **(Use, Review and Use Data)**

# Data Transcription Guidelines

**Objective** - Gain a better understanding of why we are interpreting association data for the TPT project

GloBI classifies association data by separating interaction types into discrete categories. There is added research value to characterization of the association data we are encountering on specimen labels for downstream linkages with GloBI.

- 1) **Always write what you see on the labels (might not have an interaction term) as verbatim somewhere. It is important not to make up terms, but just use what is found on the label.**
  - a) *Multiple associations*- You can and should allow for a specimen record to have multiple associations. These can be mapped separately in GloBI.
  - b) *What to do with “Blank” associations (Meaning a vertebrate taxon name is listed on a parasite specimen label with little or no other information.)*

If there is an association type field, this should be left blank, but the associatedTaxa field should contain the taxon name.
- 2) **Interpreted Data in Databases (optional)**

Some databases have the ability to apply interpreted terms from a controlled vocabulary list to association data in the record. Use guidelines stated here to create a controlled vocabulary for your database in addition to recording all association data as verbatim.

  - a) If using an interpreted interaction term from our translation table please use notes to reference this document in the specimen record. If new terms and/or definitions are used in a controlled vocabulary please add to the document.

# Example 1

Label



Generalized Database

Verbatim Interaction field:  
Host: Columba fasciata juv.

Associated Taxa:  
Columba fasciata

Association type/Relationship:  
has host

Additional Properties:  
hostLifestage=juvenile  
hostType=paratype

GloBI index

Term from either verbatim or association type: host = parasiteOf ([http://purl.obolibrary.org/obo/RO\\_0002444](http://purl.obolibrary.org/obo/RO_0002444))

Physconelloides spenceri is parasite of Columba fasciata

Cite: FMNH-INS0000028854

# Example 2

Label



Generalized  
Database

Verbatim Interaction field: On whitetail deer  
Associated Taxa: *Odocoileus virginianus*  
Association type/Relationship: On  
Additional Properties: N/A

GloBI index

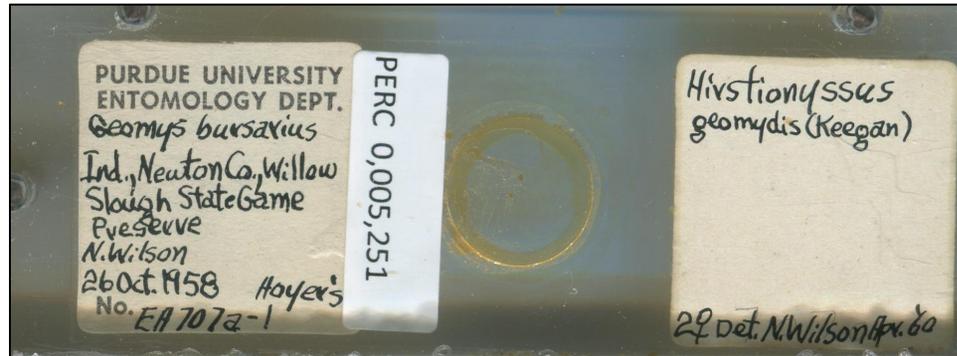
Term from either verbatim or association type: on = adjacent to ([http://purl.obolibrary.org/obo/RO\\_0002220](http://purl.obolibrary.org/obo/RO_0002220))

Hippoboscidae is adjacent to *Odocoileus virginianus*

Cite: VTEC000002246

# Example 3

Label



Generalized Database

Verbatim Interaction field: Associated Taxa:  
Geomys bursarius

Association type/Relationship: Additional Properties:

GloBI index

Default mapping

Alternate mapping from PERC

Term from either verbatim or association type:  
“blank” = biotically interacts with  
([http://purl.obolibrary.org/obo/RO\\_0002437](http://purl.obolibrary.org/obo/RO_0002437))

Term from either verbatim or association type:  
“blank” = parasiteOf  
([http://purl.obolibrary.org/obo/RO\\_0002444](http://purl.obolibrary.org/obo/RO_0002444))

Hirstionyssus geomydis interacts with Geomys bursarius

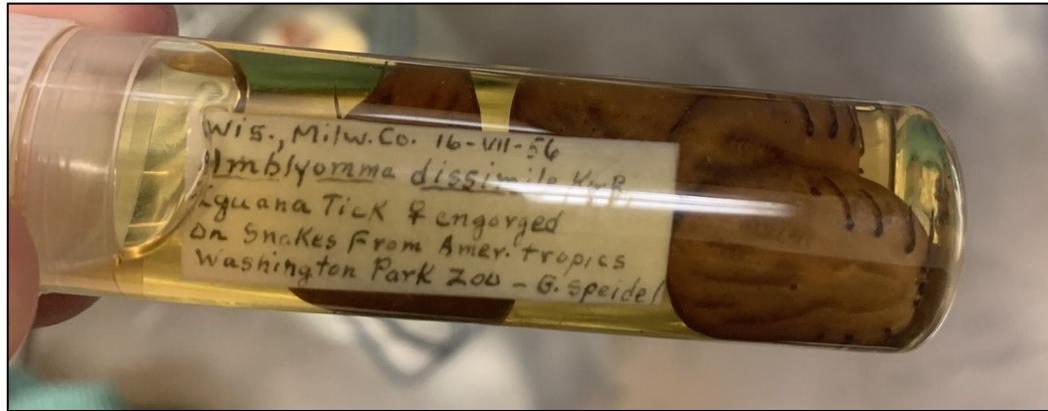
Hirstionyssus geomydis is parasite of Geomys bursarius

Cite: PERC 0005251

Cite: PERC 0005251

# From Workshop #4

Label



Generalized Database



Verbatim Interaction field:

Associated Taxa:

Association type/Relationship:

Additional Properties:

Amblyomma dissimile, Iguana Tick [female] engorged on snakes from Amer. Tropics, Washington Park Zoo

Snakes/Serpentes

on

in captivity, sex=females, behavior=engorged on snakes, nonnative snakes/snakes from Amer. tropics

GloBI index



Term from either verbatim or association type: on = adjacent to  
([http://purl.obolibrary.org/obo/RO\\_0002220](http://purl.obolibrary.org/obo/RO_0002220))

Amblyomma dissimile is adjacent to Serpentes

# Additional Properties

- Additional interaction data is useful to capture. This can be captured in a verbatim interaction field or may be recorded elsewhere in your database. Follow current workflows for entering this data.

Additional Property	Definition	Possible DwC fields
Verbatim Interaction	A biotic interaction as written on the specimen label without interpretation.	occurrenceRemarks, other fields as previously used
collectorNumber, field number, othercatalognumber	One or more identification number associated with the host specimen. This number could be a catalog number, field number or other unspecified number.	otherCatalogNumbers, dynamicProperties
locationOnHost	The location of the interaction between the specimen and another organism on the host.	dynamicProperties, occurrenceRemarks
habitat/precise location	Additional biotic entities related to the location of the specimen (i.e. in nest).	Habitat, dynamicProperties, occurrenceRemarks
verbatimHostSex	Sex of the target from a biotic interaction.	associatedOccurrences, dynamicProperties
experimentalCondition	Experimental condition of the recording of a biotic interaction.	occurrenceRemarks
hostNumber; hostCatalogNumber	One or more identification number associated with the host specimen. This number could be a catalog number, field number or other unspecified number.	associatedOccurrences, dynamicProperties
in captivity/reared	Denotes the specimen was either bred or collected in captivity.	occurrenceRemarks
specimenunitNumber/count/ DarIndividualCount	The number of specimens involved in interaction (could apply to either parasite or host).	individualCount, dynamicProperties
host Lifestage	Lifestage of target taxon (juvenile, adult, egg).	associatedOccurrences, dynamicProperties
interaction event date/time	Date and time specific to interaction. Example: host collection time vs. parasite emergence time	verbatimEventDate, occurrenceRemarks
specimen taxon sex	Male, female, or mixed if multiple individuals in record, etc.	Sex, occurrenceRemarks
associatedOccurrences	Identifiers of other Occurrence records and their associations to this Occurrence.	associatedOccurrences, dynamicProperties

# Symbiota - Part 1 - As a live collection

## Museum of Southwestern Biology Division of Parasitology - ParasiteTracker (MSB:PARA)

Home >> Collection Management >> Public Display >> Editor

< << | 11 of 4647 | >> > >

Occurrence Data | Determination History | Images | Linked Resources | Admin

**Collector Info**

Catalog Number ?  Other Cat. #s ?  Collector ?  Number ?  Date ?  Dupes?  Auto search

Associated Collectors ?  Verbatim Date ?

**Latest Identification**

Scientific Name ?  Author ?

ID Qualifier ? A  Family ?

Identified By ? Wade D. Wilson  Date Identified ? 2000-01-01

**Locality**

Country ?  State/Province ?  County ?  Municipality ?

Locality ?

Location Remarks ?

Locality Security ?  Deactivate Locality Lookup

Latitude  Longitude  Uncertainty ?  Datum ?  Verbatim Coordinates ?

Elevation in Meters ?  Verbatim Elevation ?  Depth in Meters ?  Verbatim Depth ?

Georeferenced By  Georeference Sources ?  Georeference Remarks

Georeference Protocol ?  Georef Verification Status ?  Footprint Polygon

**Misc**

Habitat ?

Substrate ?

Associated Taxa ?

Description ?

Occurrence Remarks ?

Field Notes ?

Dynamic Properties ?

Life Stage ?  Sex ?  Individual Count ?  Sampling Protocol ?  Preparations ?

Phenology ?  Establishment Means ?   Cultivated

**Curation**

Type Status ?  Disposition ?  Occurrence ID ?  Field Number ?

Basis of Record ?  Language  Label Project  Dupe Count

Institution Code (override) ?  Collection Code (override) ?  Owner Code (override) ?  Processing Status

Data Generalizations

Key: 41632648 Modified: 2020-02-23 20:59:21 Entered by: not recorded [2020-02-23 20:58:47]

## Museum of Southwestern Biology Division of Parasitology - ParasiteTracker (MSB:PARA)

Home >> Collection Management >> Public Display >> Editor

< << | 11 of 4647 | >> > >

Occurrence Data | Determination History | Images | Linked Resources | Admin

**Duplicate Specimens**

No Linked Duplicate Records

Search for Records to Link

**Genetic Resources**

Add New Resource

Name:

Identifier:

Locus:

URL:

Notes:

Add New Genetic Resource

**Associated Occurrences**

(parasite of) MSB:Mamm http://arctos.database.museum/guid/MSB:Mamm:260041 x

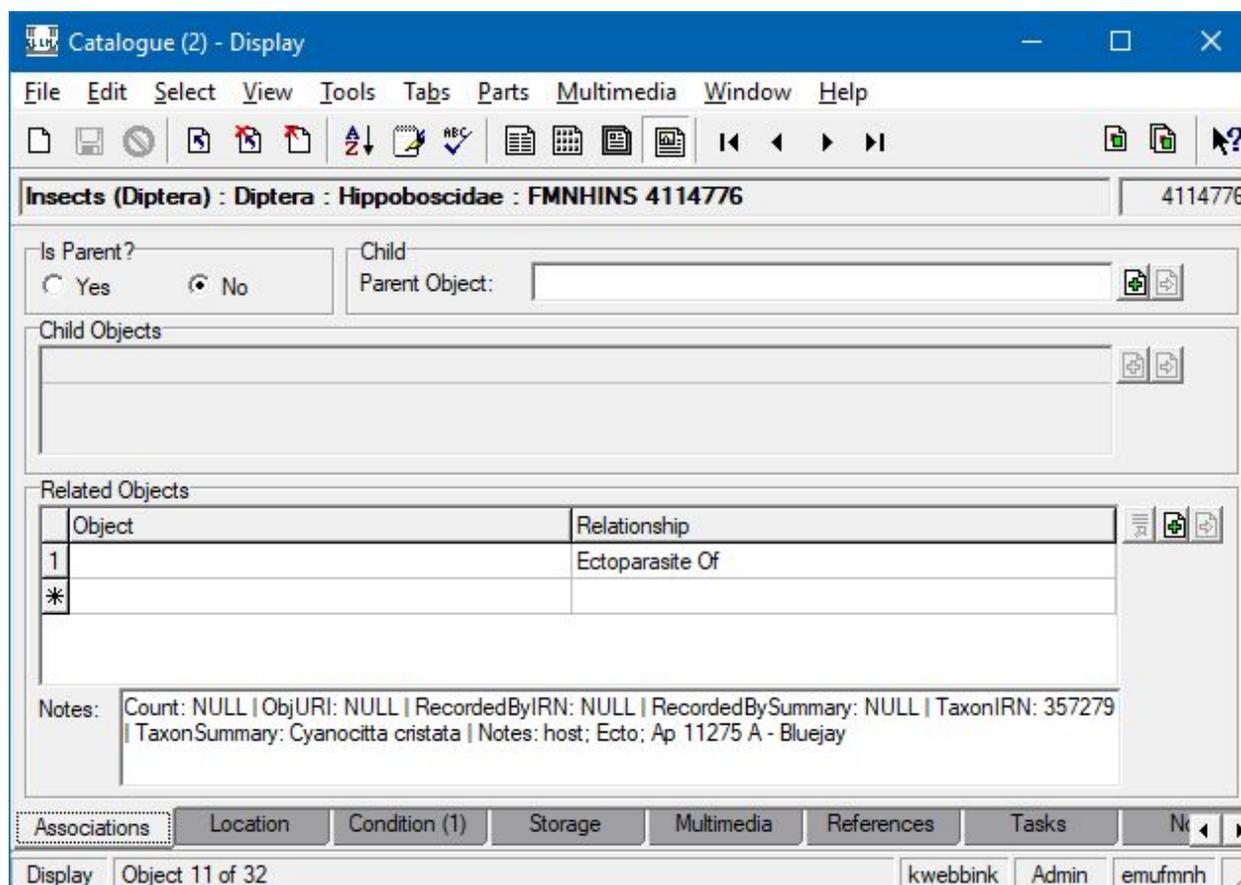
Add row Update Associated Occurrences

# Symbiota - Part 2 - A snapshot collection

Uploads data directly to SCAN using the Data Upload Module. The fields associatedTaxa, associatedOccurrences and dynamicProperties are mappable for upload.

behavior	behavior
establishmentmeans	establishmentmeans
occurrencestatus	Select Target Field
preparations	preparations
disposition	disposition
associatedreferences	Select Target Field
associatedsequences	Select Target Field
associatedtaxa	associatedtaxa
othercatalognumbers	othercatalognumbers
occurrenceremarks	occurrenceremarks
organismid	Select Target Field
organismname	Select Target Field
organismscope	Select Target Field
associatedoccurrences	associatedoccurrences
associatedorganisms	Select Target Field
previousidentifications	Select Target Field
organismremarks	Select Target Field
materialsamplid	Select Target Field
eventid	Select Target Field
parenteventid	Select Target Field
fieldnumber	fieldnumber
eventdate	eventdate
eventtime	Select Target Field
startdayofyear	startdayofyear
enddayofyear	enddayofyear

# kEmu-Relationship data intermediate workflow



Currently most use Notes fields to capture verbatim interaction data. Intermediate workflow targets future fields in EMu which map to the Resource Relationship extension in DwC.

# Specify-add new fields for association data with suggested Darwin Core mapping

The screenshot shows the Specify software interface with the following sections:

- Collection Object:** Fields for Catalog Number, Accession, Alt Cat Number, Cataloger (Tucker, Erika), Cataloged Date, Project Number, and checkboxes for 'on Loan (legacy)', 'Do Not Publish', and 'Sensitive'.
- Determinations:** Fields for Taxon, Qualifier, Addendum, Preferred Taxon, Name Usage, Determined Date, Determiner, Type Status, and Remarks.
- Collecting Information:** Fields for Field Number, Method, Start Date, End Date, Verbatim Date, second date, and Locality.
- Collecting Event Attribute:** Fields for MONTH, Day, and Year.
- Collectors:** Table with columns for Last Name, First Name, and Remarks.
- Preparations:** Table with columns for Prep Type, Is On Loan, Preparation Attachments, Count, Prepared By, Storage, Sample Number, and Contact.
- Col Obj Attribute:** Fields for Sex, Study Voucher, Stage, Genitalia No., Tissue Sample, Sound Record, and Record Type.
- Host Fields (highlighted in red box):**
  - Host ID, Host Class, Host Genus
  - Host Catalog No., Host Order, Host Species
  - Host Sex, Host Family, Host Subspecies
- Attachments:** Section for Collection Object Attachments.

At the bottom, there are fields for 'Modified By Agent', 'Modified Date: 02/14/2020', and 'GUID: 21917a15-642a-4ed0-860e-e1d4259df2f3'.

SPECIFY Category	SPECIFY fields	NOTE	TDWG Fields
Collection Object Attribute	Host ID		<i>dynamicProperties</i>
Collection Object Attribute	Host Catalog No.	<b>*NEW*</b>	<i>associatedOccurrences</i>
Collection Object Attribute	Host Sex	<b>*NEW*</b>	<i>dynamicProperties</i>
Collection Object Attribute	Host Class	<b>*NEW*</b>	<i>associatedTaxa</i>
Collection Object Attribute	Host Order	<b>*NEW*</b>	<i>associatedTaxa</i>
Collection Object Attribute	Host Family	<b>*NEW*</b>	<i>associatedTaxa</i>
Collection Object Attribute	Host Genus	<b>*NEW*</b>	<i>associatedTaxa</i>
Collection Object Attribute	Host Species	<b>*NEW*</b>	<i>associatedTaxa</i>
Collection Object Attribute	Host Subspecies	<b>*NEW*</b>	<i>associatedTaxa</i>
Collection Object Attribute	Relationship	<b>*NEW*</b>	<i>dynamicProperties</i>

Provided by Erika Tucker, University of Michigan

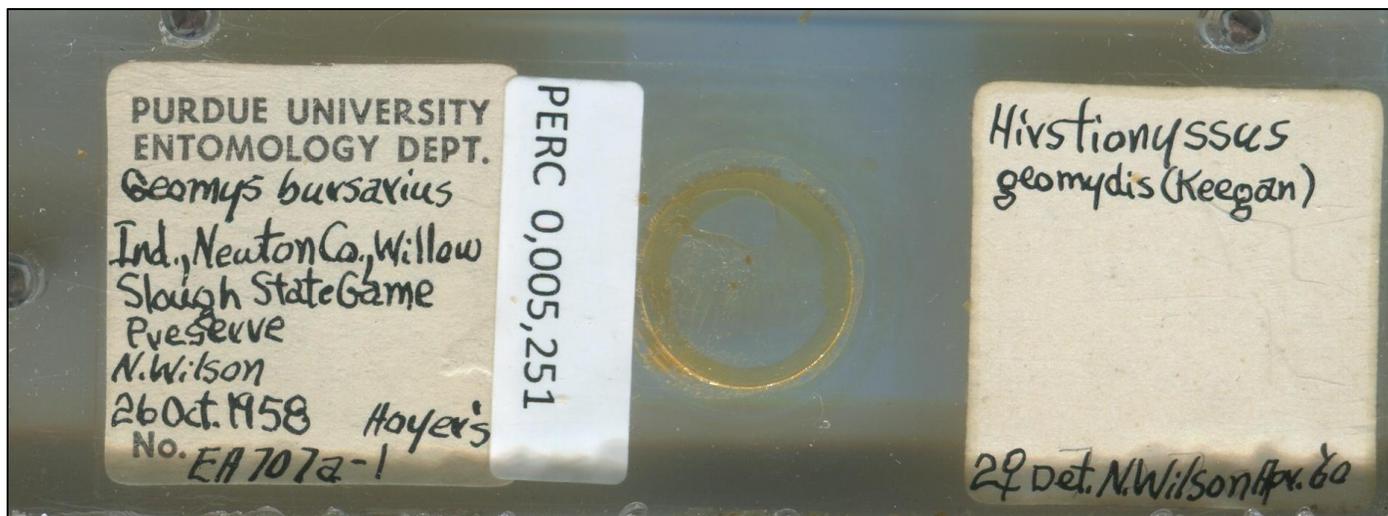
## Tables of Interaction Terms and GloBI Mapping

**Objective:** Learn what the default translations are in GloBI of interaction terms

\*Translations can be thought of as interpretations....

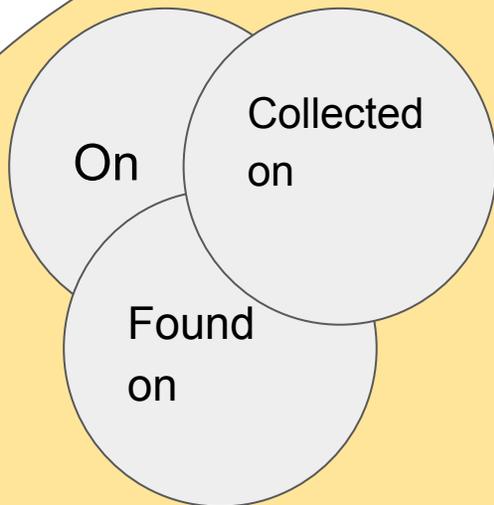
**Objective:** Understand how to change the default translation

**Objective:** Continue discussing data review



Example specimen: no specific interaction listed

Relations Ontology classes are for **Grouping Things**, so records in GloBI can be found together without changing the meaning.



<http://purl.obolibrary.org/obo/R>

[O\\_0002220](http://purl.obolibrary.org/obo/R) (adjacent to)

**Definition:** X adjacent to y if  
and only if x and y share a  
boundary

# Explanation of interaction term tables

We have provided an updated translation\* table specific to Terrestrial Parasite Tracker for GloBI that includes common verbatim association terms, common interpreted terms, and additional terms that may come up from different databases. We have defined these terms in the context of collected parasite specimens, and each of these terms has been mapped to a Relations Ontology (RO) class as a default, with a link provided. It is expected that collections will have different interpretations and definitions of similar verbatim terms, so some alternative RO classes have been provided as examples. The RO classes will be used in GloBI to group similar interaction terms together across datasets.

## How to map terms

1. This table will serve as the default translation table for all TPT interaction data indexed by GloBI.
2. Individual collections can and should adjust these translations as needed. Adjustments can be made at anytime during the digitization process, and they can be applied to subsets of data from a collection by request.

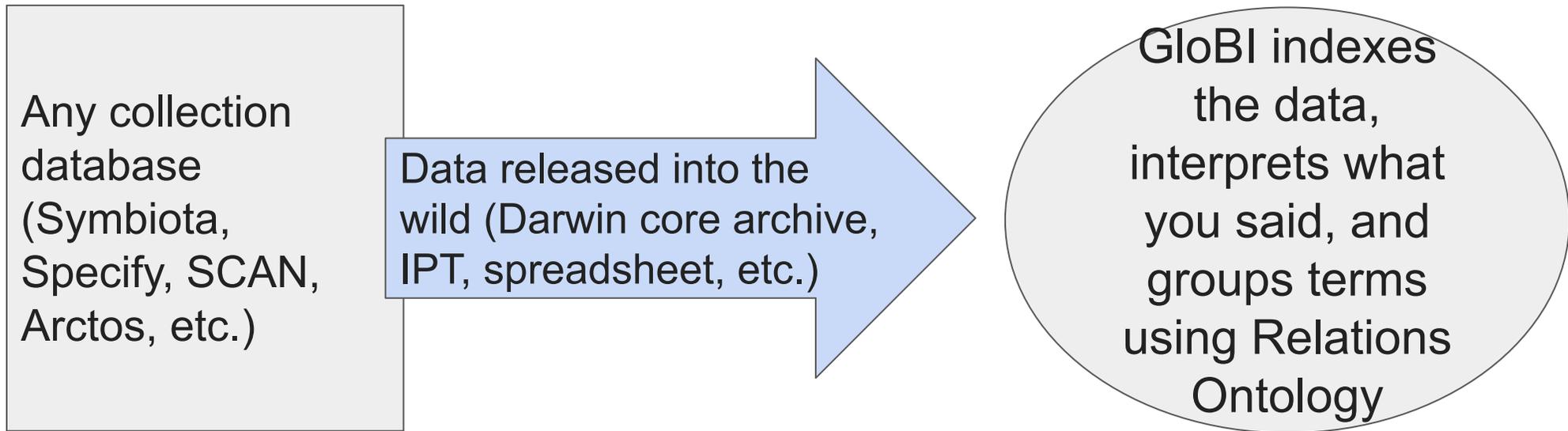
\*Translations can be thought of as interpretations.

<i>Literal Terms Written on Labels</i>	Definition	Default RO Classes	Alternative RO Classes
collected on; on; found on	Specimen found touching an associated organism.	<a href="http://purl.obolibrary.org/obo/RO_0002220">http://purl.obolibrary.org/obo/RO_0002220</a>	
parasite of	"Feeds on host tissue, causes damage, or reduces fitness" - Barry OConnor	<a href="http://purl.obolibrary.org/obo/RO_0002444">http://purl.obolibrary.org/obo/RO_0002444</a>	
host (or has host)	"Feeds on host tissue, causes damage, or reduces fitness" - Barry OConnor	<a href="http://purl.obolibrary.org/obo/RO_0002454">http://purl.obolibrary.org/obo/RO_0002454</a>	
found near; near	An interaction relationship describing organisms that occur together at the same time and space or in the same environment.	<a href="http://purl.obolibrary.org/obo/RO_0008506">http://purl.obolibrary.org/obo/RO_0008506</a>	
<b>nothing on label</b>	The specimen is associated with another organism in some way, but the biology of the particular interaction is unknown.	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	Parasite of: <a href="http://purl.obolibrary.org/obo/RO_0002444">http://purl.obolibrary.org/obo/RO_0002444</a> ; ecologically co-occurs with: <a href="http://purl.obolibrary.org/obo/RO_0008506">http://purl.obolibrary.org/obo/RO_0008506</a>
from; pulled from	Specimen found touching an associated organism.	<a href="http://purl.obolibrary.org/obo/RO_0002220">http://purl.obolibrary.org/obo/RO_0002220</a>	
<b>ex</b>	<i>Similar to blank labels, ex can vary widely in its accepted usage and should be clarified if used as an interaction term.</i> One sample definition from RO class interacts with is " <b>an interaction relationship in which at least one of the partners is an organism and the other is either an organism or an abiotic entity with which the organism interacts.</b> " Stronger or weaker interaction classes may apply and are listed in the alternative RO classes field.	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	Parasite of: <a href="http://purl.obolibrary.org/obo/RO_0002444">http://purl.obolibrary.org/obo/RO_0002444</a> ; ecologically co-occurs with: <a href="http://purl.obolibrary.org/obo/RO_0008506">http://purl.obolibrary.org/obo/RO_0008506</a>

<b><i>Additional Terms You Might Encounter</i></b>	<b>Definition</b>	<b>Default RO Classes</b>	<b>Alternative RO Classes</b>
collected with	An interaction relationship describing organisms that occur together at the same time and space or in the same environment.	<a href="http://purl.obolibrary.org/obo/RO_0008506">http://purl.obolibrary.org/obo/RO_0008506</a>	
attached to	Specimen found touching associated organism.	<a href="http://purl.obolibrary.org/obo/RO_0002220">http://purl.obolibrary.org/obo/RO_0002220</a>	
biting	Specimen found touching associated organism.	<a href="http://purl.obolibrary.org/obo/RO_0002220">http://purl.obolibrary.org/obo/RO_0002220</a>	
co-occurred with	An interaction relationship describing organisms that occur together at the same time and space or in the same environment.	<a href="http://purl.obolibrary.org/obo/RO_0008506">http://purl.obolibrary.org/obo/RO_0008506</a>	
feeding on	An interaction relationship in which the partners are related via a feeding relationship.	<a href="http://purl.obolibrary.org/obo/RO_0002438">http://purl.obolibrary.org/obo/RO_0002438</a>	Adjacent to <a href="http://purl.obolibrary.org/obo/RO_0002220">http://purl.obolibrary.org/obo/RO_0002220</a>
in	An interaction relationship describing organisms that occur together at the same time and space or in the same environment.	<a href="http://purl.obolibrary.org/obo/RO_0008506">http://purl.obolibrary.org/obo/RO_0008506</a>	0
reared from	From; with the property of "in a controlled environment".	<a href="http://purl.obolibrary.org/obo/RO_0002220">http://purl.obolibrary.org/obo/RO_0002220</a>	
ectoparasite	A sub-relation of parasite-of in which the parasite lives on or in the integumental system of the host.	<a href="http://purl.obolibrary.org/obo/RO_0002632">http://purl.obolibrary.org/obo/RO_0002632</a>	

<b><i>Interpreted Terms</i></b>	<b>Definition</b>	<b>Default RO Classes</b>	<b>Alternative RO Classes</b>
associates with	An interaction relationship describing organisms that occur together at the same time and space or in the same environment.	<a href="http://purl.obolibrary.org/obo/RO_0008506">http://purl.obolibrary.org/obo/RO_0008506</a>	
interacts with	An interaction relationship in which at least one of the partners is an organism and the other is either an organism or an abiotic entity with which the organism interacts.	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	
localized to	An interaction relationship describing organisms that occur together at the same time and space or in the same environment.	<a href="http://purl.obolibrary.org/obo/RO_0008506">http://purl.obolibrary.org/obo/RO_0008506</a>	

# Translations can occur in the collection database



Associated Taxa:  
Geomys bursarius



interacts with:

[http://purl.obolibrary.org/obo/RO\\_0002437](http://purl.obolibrary.org/obo/RO_0002437)

Associated Taxa:  
parasiteOf: Geomys  
bursarius



parasite of:

[http://purl.obolibrary.org/obo/RO\\_0002444](http://purl.obolibrary.org/obo/RO_0002444)

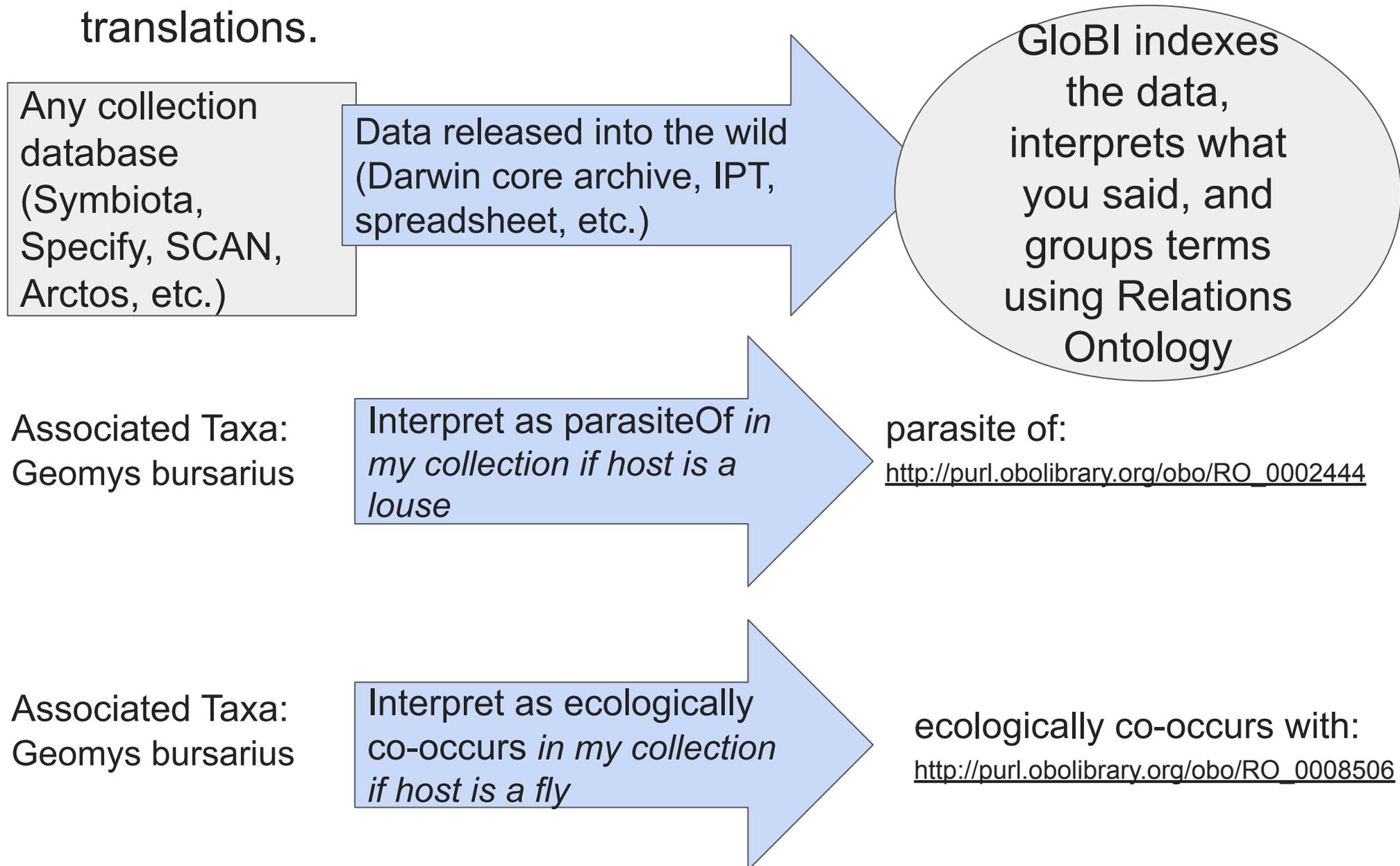
Associated Taxa:  
associatesWith: Geomys  
bursarius



ecologically co-occurs with:

[http://purl.obolibrary.org/obo/RO\\_0008506](http://purl.obolibrary.org/obo/RO_0008506)

**Or** translations can occur by changing how GloBI interprets your data based on your collection. These are collection specific term translations.



**\*\*Altering GloBI interpretation will not affect data as it is recorded in databases.**

# Example from INHS - Collection specific translation table

globalbioticinteractions / inhs-insects

Unwatch 2

Star 0

Fork 0

Code

Issues 0

Pull requests 0

Actions

Projects 0

Wiki

Security 0

Insights

Settings

Branch: master

inhs-insects / interaction\_types\_mapping.csv

Find file

Copy path

 jhpoelen update mapping

d8e2895 on Feb 22

1 contributor

9 lines (9 sloc) | 618 Bytes

Raw

Blame

History



Search this file...

	provided_interaction_type_label	provided_interaction_type_id	mapped_to_interaction_type_label	mapped_to_interaction_type_id
1	Host of		hostOf	http://purl.obolibrary.org/obo/RO_0002453
2	Parasite		hasParasite	http://purl.obolibrary.org/obo/RO_0002445
3	Pollinating		pollinates	http://purl.obolibrary.org/obo/RO_0002455
4	Predator		preyedUponBy	http://purl.obolibrary.org/obo/RO_0002458
5	Prey		preysOn	http://purl.obolibrary.org/obo/RO_0002439
6	Reared from		hasHost	http://purl.obolibrary.org/obo/RO_0002454
7	Parasite of		parasiteOf	http://purl.obolibrary.org/obo/RO_0002444
8	Host		hasHost	http://purl.obolibrary.org/obo/RO_0002454
9				

# Use and Review Data: Simple Review

## TPT Collections Status

Click on badges to browse/download indexed records or inspect automated reviews.

[edit collection list](#)

[GloBI](#) [BPBM](#) / [GloBI](#) [BYU](#) / [GloBI](#) [CAS](#) / [GloBI](#) [CUAC](#) / [GloBI](#) [FMNH](#) / [GloBI](#) [INHS](#) / [GloBI](#) [MSU](#) / [GloBI](#) [MPM](#) / [GloBI](#) [HWML](#) / [GloBI](#) [OSAL](#) / [GloBI](#) [PSU](#) / [GloBI](#) [PERC](#) / [GloBI](#) [TAMUIC](#) / [GloBI](#) [BRTC](#) / [GloBI](#) [ANSP](#) / [GloBI](#) [USNM](#) / [GloBI](#) [UCSB-IZC](#) / [GloBI](#) [UHIM](#) / [GloBI](#) [UMMZ](#) / [GloBI](#) [UMSP](#) / [GloBI](#) [UNHC](#) / [GloBI](#) [MSB-PARA](#) / [GloBI](#) [MSB-HOST](#) / [GloBI](#) [PIPER](#) / [GloBI](#) [WIRC](#) / [GloBI](#) [UWSP](#) / [GloBI](#) [VB](#)

status	institution/collection	platform	contact
	BPBM / Bishop Museum / Gressitt Entomology Collection	<a href="#">Specify</a>	Jim Boone, Neal Evenhuis
	BYU / Brigham Young University Arthropod Museum / Monte L. Bean Museum of Life Science Museum Insects and Arachnids	<a href="#">SymbSCAN</a>	Michael Whiting
	CAS / California Academy of Sciences / Entomology Collection	<a href="#">Institutional</a>	Chris Grinter, Michelle Trautwein
	CUAC / Clemson University / Clemson University Arthropod Collection	<a href="#">Specify</a>	Michael Caterino
	FMNH / Field Museum of Natural History / FMNH Insects, Arachnids, and Myriapods	<a href="#">EMu</a>	John Bates, Maureen Turcatel, Petra Sierwald
	INHS / Illinois Natural History Survey, University of Illinois at Urbana-Champaign / INHS Insect Collection	<a href="#">TaxonWorks</a>	Dmitry A Dmitriev, Matt Yoder
	MSU / Michigan State University / Albert J. Cook Arthropod Research Collection	<a href="#">SymbSCAN</a>	Anthony Cognato, Sarah Smith
	MPM / Milwaukee Public Museum / MPM Zoology	<a href="#">EMu</a>	Kat Sullivan, Alyssa Caywood, Christopher Tyrrell, Jennifer Zaspel , Julia Colby

You can interact directly with GloBI through the TPT GloBI webpage. <https://www.globalbioticinteractions.org/parasitetracker/>

The buttons next to your collection name are clickable and they indicate if:

GloBI has indexed your collection data and it shows up on the GloBI website



A list of all the interaction records in your data



GloBI knows how to find your data



# Use and Review Data: Simple Review



reviewId	reviewDate	reviewer	namespace	reviewCom	reviewComment	archiveURI	referenceUrl
d46686a2-cc39-4573-9bdc-2fff27608586	2020-04-29T06:15:41Z	GloBI automated	local	summary	file:///home/travis/build/globalbioticinteractions/ucsb-izc/./		
d46686a2-cc39-4573-9bdc-2fff27608586	2020-04-29T06:15:41Z	GloBI automated	local	summary	1368 interaction(s)		
d46686a2-cc39-4573-9bdc-2fff27608586	2020-04-29T06:15:41Z	GloBI automated	local	summary	0 note(s)		
d46686a2-cc39-4573-9bdc-2fff27608586	2020-04-29T06:15:41Z	GloBI automated	local	summary	1756 info(s)		



Platycotis	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Sequoia
Cyrtolobus	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Sequoia
Ceresa	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Baccharis
Ceresa	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Avena
Platycotis	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Quercus agrifolia
Oncopeltus fasciatus	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Asclepius
Philya	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Baccharis pilularis
Philya	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Avena
Oncopeltus fasciatus	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Asclepias
Cyrtolobus	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Sequoia
Platycotis	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Quercus agrifolia
Platycotis	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Quercus agrifolia
Issidae	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Acmispon glaber
Agapostemon texanus	<a href="http://purl.obolibrary.org/obo/RO_0002622">http://purl.obolibrary.org/obo/RO_0002622</a>	visitsFlowersOf	Calystegia macrostegia subsp. macrostegia
Meinertellidae	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Baccharis pilularis
Meinertellidae	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Avena
Miridae	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Baccharis pilularis
Miridae	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Avena sp
Lygus	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Baccharis salicifolia
Miridae	<a href="http://purl.obolibrary.org/obo/RO_0002454">http://purl.obolibrary.org/obo/RO_0002454</a>	hasHost	Baccharis salicifolia
Miridae	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Salvia mellifera
Miridae	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Baccharis salicifolia
Hemiptera	<a href="http://purl.obolibrary.org/obo/RO_0002437">http://purl.obolibrary.org/obo/RO_0002437</a>	interactsWith	Eriogonum

# Our Future? Even better reviews and tracking through data publication to help improve data sharing and interpretation

review\_summary

distinctReviewCommentCount	type	comment
1374	info	likely describes biotic interaction
15	issue	source taxon name missing
16	info	no biotic interaction detected
1	issue	found unsupported interaction type with name: [centromadia parryi subsp. australis]

Count	interactionTypeNameVerbatim	interactionTypeNameInterpreted
1	In	interactsWith
1305	associated with	interactsWith
2	ex	hasHost
2	inside	interactsWith
3	interactsWith	interactsWith
7	on	adjacentTo
6	under	interactsWith
12	visits	visits
30	visitsFlowersOf	visitsFlowersOf

All of the TPT datasets are archived each reporting period

February 24, 2020

Dataset

Open Access

Terrestrial Parasite Tracker indexed biotic interactions and review summary

<http://doi.org/10.5281/zenodo.3685365>

April 30, 2020

Dataset

Open Access

Terrestrial Parasite Tracker indexed biotic interactions and review summary

<https://doi.org/10.5281/zenodo.3778773>

Webinar: Wednesday, June 10th, 1:00 PM CST

GloBI: <https://www.globalbioticinteractions.org/>

GloBI: [github https://github.com/globalbioticinteractions](https://github.com/globalbioticinteractions)