Global Biotic Interactions

A Catalyst for Integrating Existing Species-Interaction Datasets


http://dx.doi.org/10.1016/j.ecoinf.2014.08.005.
Global Biotic Interactions (GloBI) is a collaborative, open source, open data project that makes existing species-interaction datasets easier to discover and use.

http://globalbioticinteractions.org
a brief history

2011 - Jorrit meets Jim at Texas A&M College Station for Ecological Integration Symposium.

2013 - Encyclopedia of Life Rubenstein Fellowship / GloBI / GoMexSI born

2014 - Jorrit, Jim and Chris publish GloBI paper

<many citations, workshops, conferences, integrations later>

2019 - GloBI <> Terrestrial Parasite Tracker TCN
1. Existing openly accessible species interaction datasets in any data format are registered using https://globalbioticinteractions.org/contribute

2. GloBI continually and automatically indexes and links most recent species interaction datasets.

3. Users discover, access and improve datasets via GloBI's many integrations, search pages, data archives or APIs.
Some chipmunk (Tamias sp.) biotic associations provided by Arctos as indexed and linked by GloBI on 26 September 2019


https://globalbioticinteractions.org
Some chipmunk (Tamias sp.) biotic associations by all providers as indexed and linked by GloBI on 26 September 2019

https://globalbioticinteractions.org
Southern Sea Otter (Enhydra lutris nereis) inaturalist.org/taxa/117520

Pacific rock crab (Romaleon antennarium) inaturalist.org/taxa/202315

Specimen/Individual/Occurrence -> eats -> Specimen/Individual/Occurrence

classified_as

collected_at

collected
2014-03-09 PDT

in_dataset

Dataset
https://github.com/globalbioticinteractions/inaturalist/archive/fae51d40d470e9adaa15b89bd2f1ba6c0a5c8fbd.zip

Simplified internal data model used by GloBI to integrate interaction data.
Southern Sea Otter (Enhydra lutris nereis)
- inaturalist.org/taxa/117520
- marinespecies.org/aphia.php?p=taxdetails&id=242601
- gbif.org/species/6163936

Pacific rock crab (Romaleon antennarium)
- inaturalist.org/taxa/202315
- gbif.org/species/5970317
- marinespecies.org/aphia.php?p=taxdetails&id=440397

Specimen/Individual/Occurrence
- eats RO_0002470
- classified_as
- collected 2014-03-09 PDT

Location
- Lat: 36.713851
- Lon: -121.960949

Ecoregions

Environments

Environments
classified_as
in_dataset
Study
- https://www.inaturalist.org/observations/563486

Simplified internal data model used by GloBI to integrate interaction data.
it takes a village to keep and share a record
Bidirectional links include Encyclopedia of Life, Gulf of Mexico Species Interactions, NCBI Taxonomy, World Register of Marine Species, iNaturalist, Fishbase and SeaLifeBase.

Outgoing links include UBERON (body parts, life stage, physiological state), EnvO, GeoNames, CMECS, FEOW, MEOW, TEOW, doi.org, ITIS, Open Tree of Life, NBN and ALA.

Link services include Global Names and CrossRef.
Please cite GloBI using;
http://dx.doi.org/10.1016/j.ecoinf.2014.08.005.
GloBI is not possible without the many contributions (big and small) of folks like Jen Hammock, Katja Schulz, Pepper Luboff, Chris Mungall, Katja Seltmann, Brian Hayden, Ken-ichi Ueda, Mariana Cains, Nuria Altimir, Srini Anand, William Liao, Sean Shiverick, Jim Simons, Theresa Mitchell, Emanuel Heitlinger, Marius Bäsler, Kathy Kwan, Deng Palomares, Josephine “Skit” Barile, Anne Thessen, Allen Hurlbert, Malcolm Storey… and thousands of others that have collected and shared species-interaction data.

GloBI has received funding from several projects since 2013. Those funding sources include, but are not limited to, the Encyclopedia of Life, EOL Rubenstein Fellows Program (CRDF EOL-33066-13/F33066, 2013) and the David M. Rubenstein Grant (FOCX-14-60988-1, 2014), and the Smithsonian Institution (SI) (T15CC10297-002, 2016).
“The advantage, and at the same time the difficulty, of ecological work is that it attempts to provide conceptions which can link up into some complete scheme the colossal store of facts about natural history which has accumulated up to date in this rather haphazard manner. [...] Until more organised information about the subject is available, it is only possible to give a few instances of some of the more clear-cut niches which happen to have been worked out.”