



Global Biotic Interactions

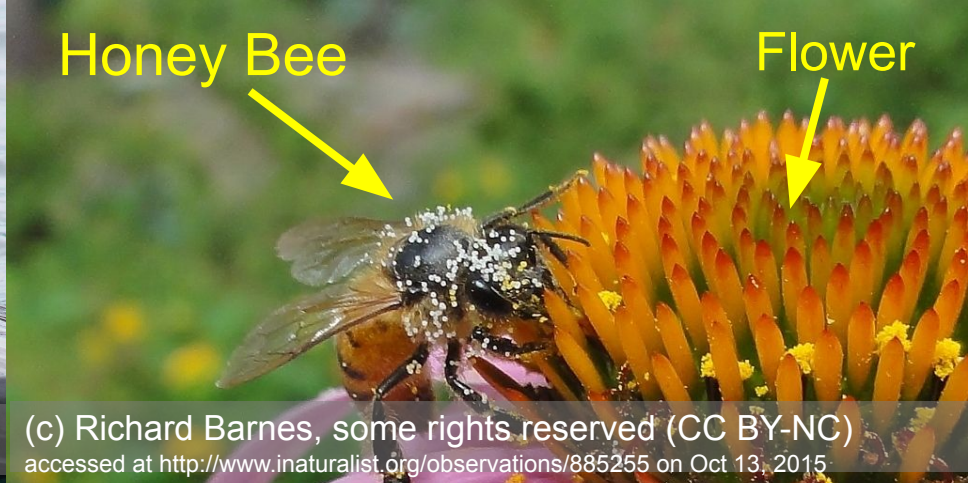
A Catalyst for Integrating Existing
Species-Interaction Datasets

Jorrit H. Poelen, James D. Simons and Chris J. Mungall. (2014). Global Biotic Interactions: An open infrastructure to share and analyze species-interaction datasets. *Ecological Informatics*.

<http://dx.doi.org/10.1016/j.ecoinf.2014.08.005>.



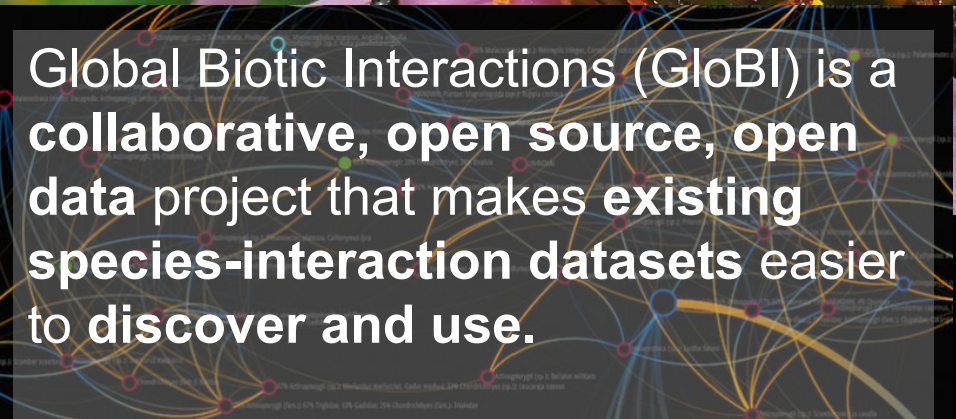
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accessed at <http://www.inaturalist.org/observations/563486> on Feb 4, 2015



(c) Richard Barnes, some rights reserved (CC BY-NC)
accessed at <http://www.inaturalist.org/observations/885255> on Oct 13, 2015



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accessed at <http://www.inaturalist.org/observations/2020957> on Oct 13, 2015



Background image: Slyusarev et al. (2015): Global Biotic Interactions food web map. figshare. <http://dx.doi.org/10.6084/m9.figshare.1297762>

<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

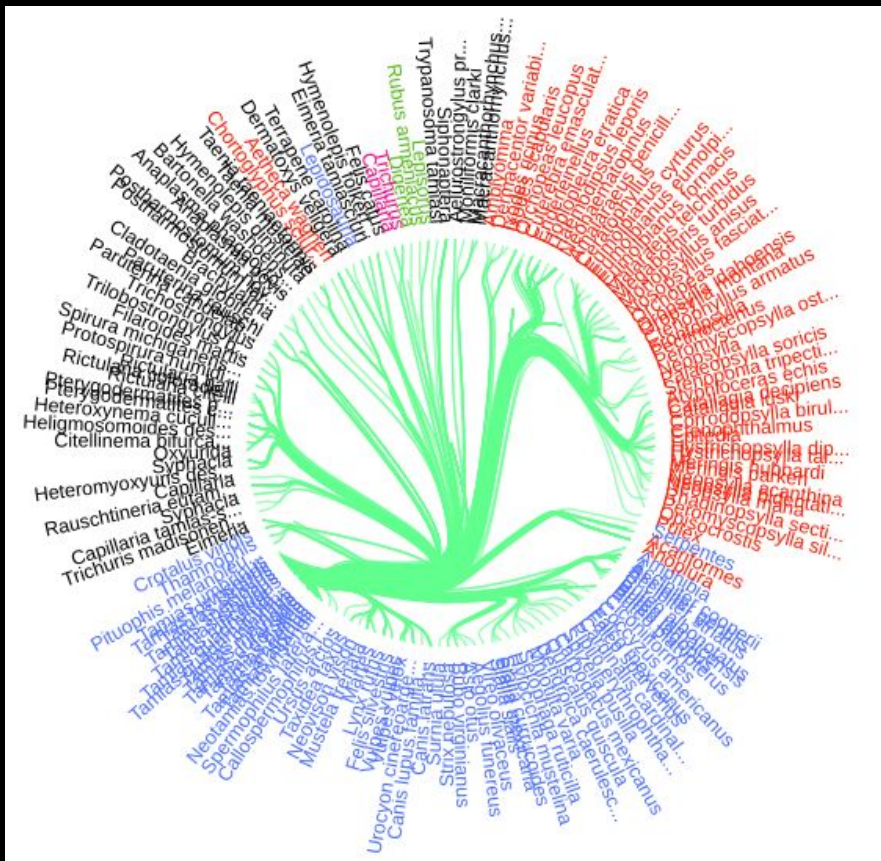
<many citations, workshops, conferences, integrations later>

2019 - GloBI <> Terrestrial Parasite Tracker TCN



in a nutshell

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.



GloBI

about blog browse contribute data search references status Español 日本語

Example query: What do sea otters (*Enhydra lutris*) eat? or What do honey bees (*Apis*) pollinate?

What kind of do get parasitized by

chipmunk (Tamias)

Some chipmunk (*Tamias* sp.) biotic associations by all providers as indexed and linked by GloBI on 26 September 2019

Background image: Slyusarev et al. (2015): Global Biotic Interactions food web map. figshare. <http://dx.doi.org/10.6084/m9.figshare.1297762>

<https://globalbioticinteractions.org>



Southern Sea Otter
(*Enhydra lutris nereis*)
inaturalist.org/taxa/117520

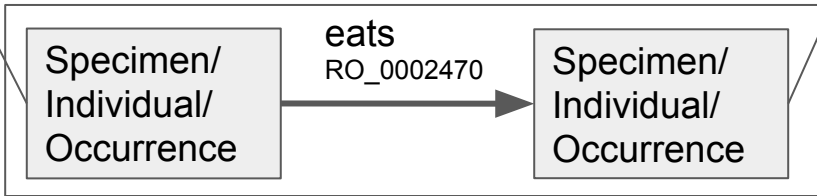
Location
Lat: 36.713851
Lon: -121.960949

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

classified_as

collected_at

classified_as



collected
2014-03-09 PDT

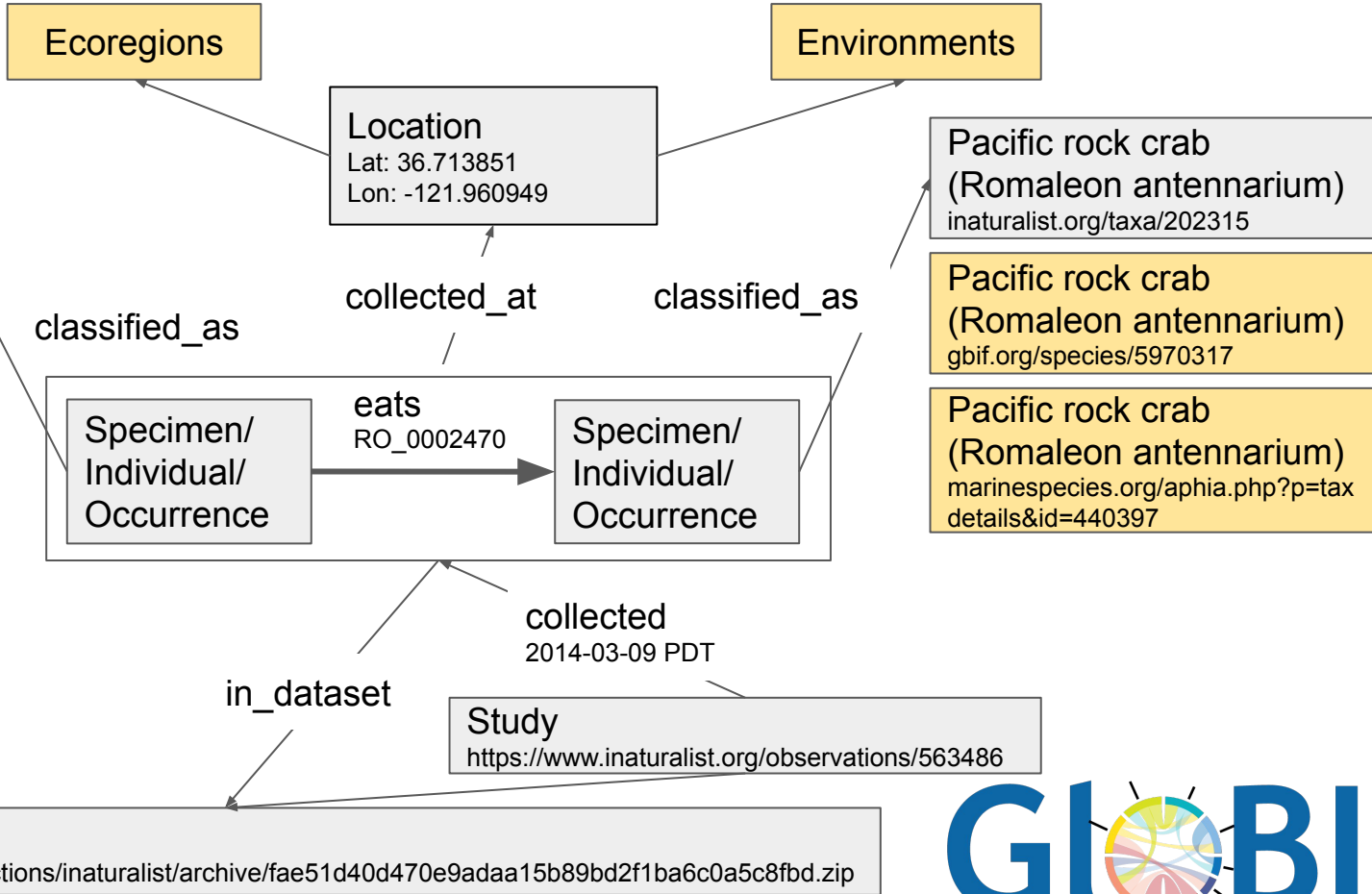
in_dataset

Study
<https://www.inaturalist.org/observations/563486>

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



Simplified internal data model used by GloBI to integrate interaction data.



Simplified internal data model used by GloBI to integrate interaction data.



it takes a village
to keep and share
a record

Data Mobilizers



Data Providers



Data Integration

GLOBI

Data Users



Ontology & Standards Communities

Taxonomists

Ecologists

OBO Foundry



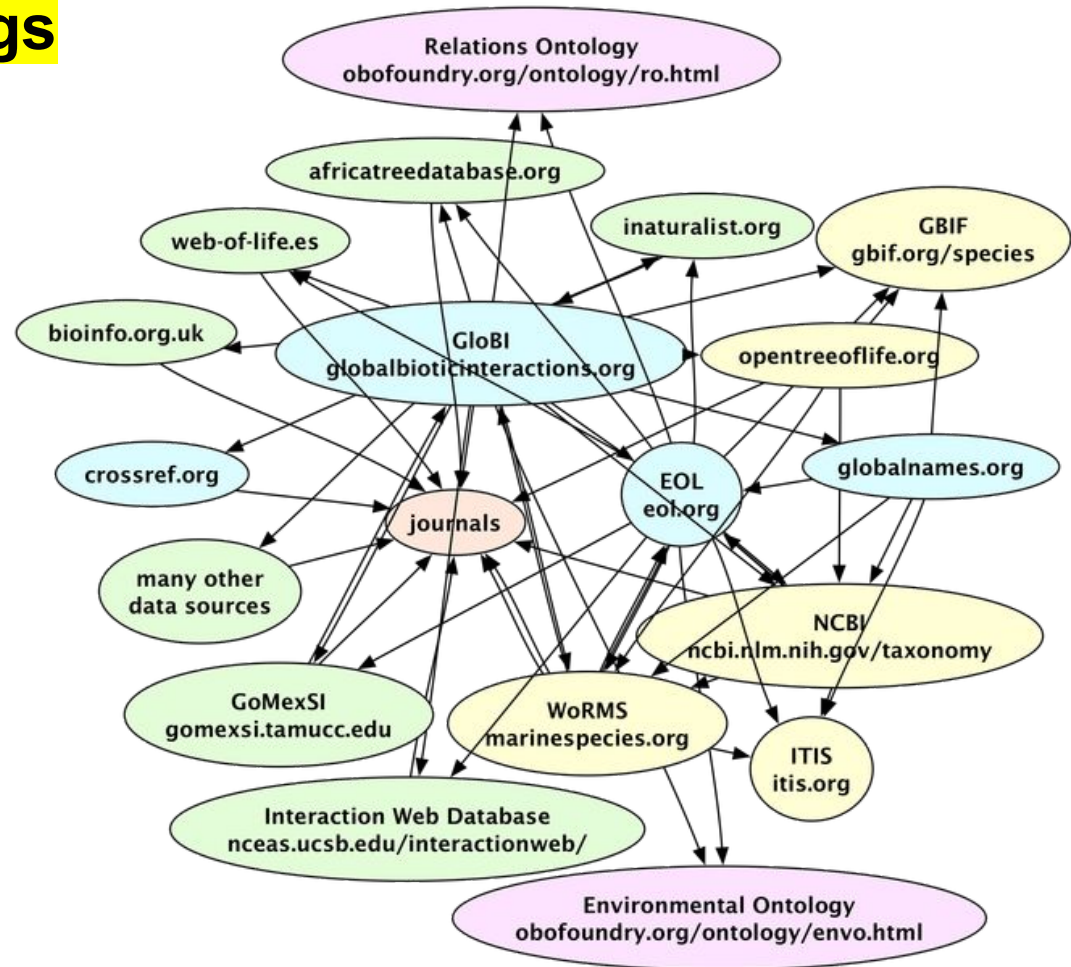


linking all the things

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.





<https://globalbioticinteractions.org>
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@GlobalBiotic

Please cite GloBI using;

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Global Biotic Interactions: An open infrastructure to share and analyze species-interaction datasets. *Ecological Informatics*.

<http://dx.doi.org/10.1016/j.ecoinf.2014.08.005>.



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an incomplete list in no particular order

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.

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ANIMAL ECOLOGY

BY
CHARLES ELTON

WITH AN INTRODUCTION BY
JULIAN S. HUXLEY, M.A.
FULLERIAN PROFESSOR OF PHYSIOLOGY, ROYAL INSTITUTION

“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.”

Charles Elton, 1927, *Animal Ecology*.

NEW YORK
THE MACMILLAN COMPANY

1927