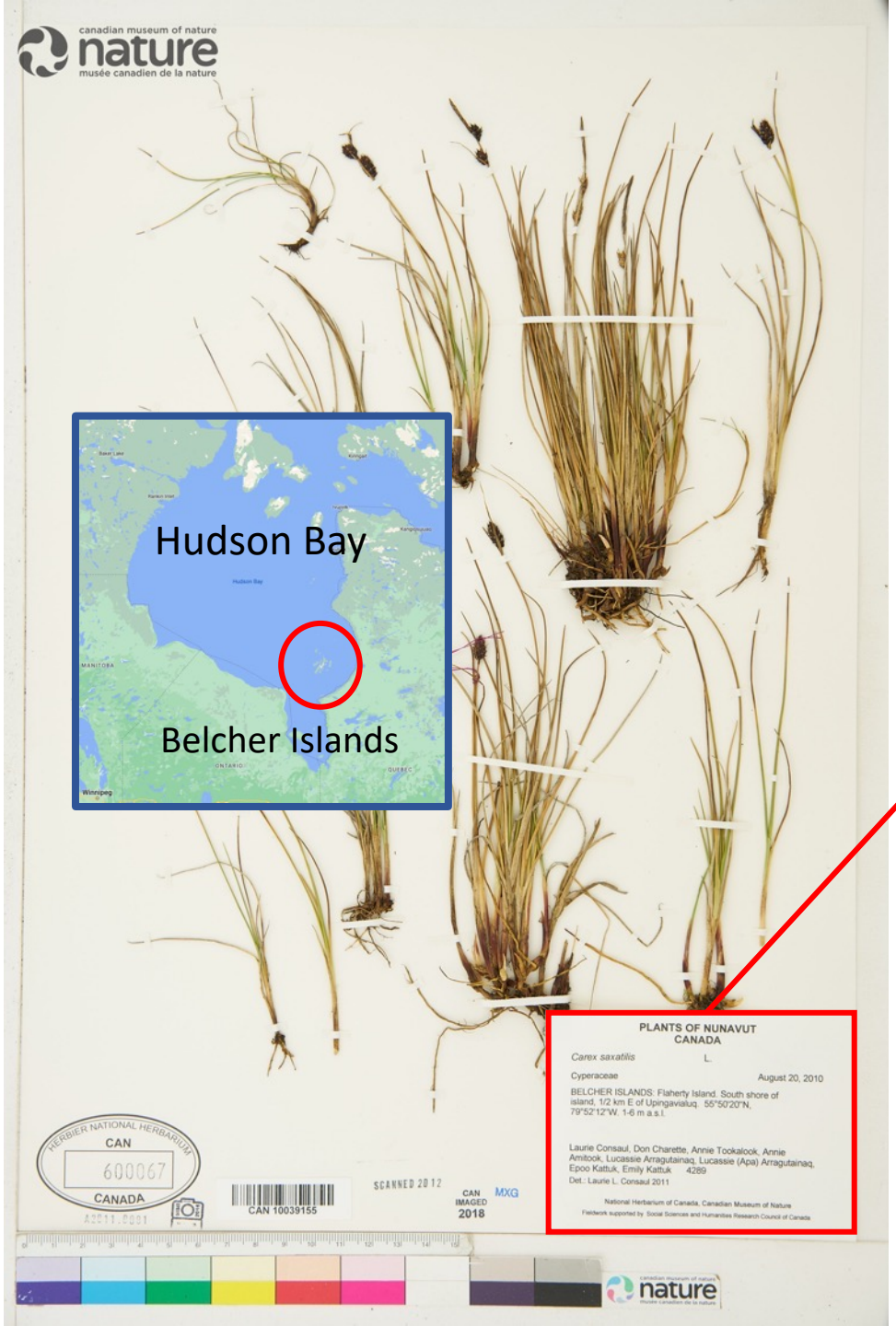
Connecting Scientists and their Specimens through Bionomia

David P. Shorthouse

https://orcid.org/0000-0001-7618-5230

“ If anybody wants to keep creating, they have to be about change”

– Miles Davis



WHAT

WHEN

WHERE

WHO

PLANTS OF NUNAVUT
CANADA

Carex saxatilis L.

Cyperaceae

August 20, 2010

BELCHER ISLANDS: Flaherty Island. South shore of island, 1/2 km E of Upingavialuq. 55°50'20"N, 79°52'12"W. 1-6 m a.s.l.

Laurie Consaul, Don Charette, Annie Tookalook, Annie Amitook, Lucassie Arragutainaq, Lucassie (Apa) Arragutainaq, Epoo Kattuk, Emily Kattuk 4289

Det.: Laurie L. Consaul 2011

National Herbarium of Can eum of Nature

Fieldwork supported by Social Sciences and Humanities Research Council of Canada

Annie Tookalook

Google Search I'm Feeling Lucky

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ᓱᓕᔪᒥᒃ ᑭᓪᓕᓯᓂᐊᖅᑏᑦ
QIKIQTANI
TRUTH COMMISSION

https://www.qtcommission.ca/

"In order for forgiveness to be given there must be truth and an acknowledgement of what happened"

— - John Amagoalik

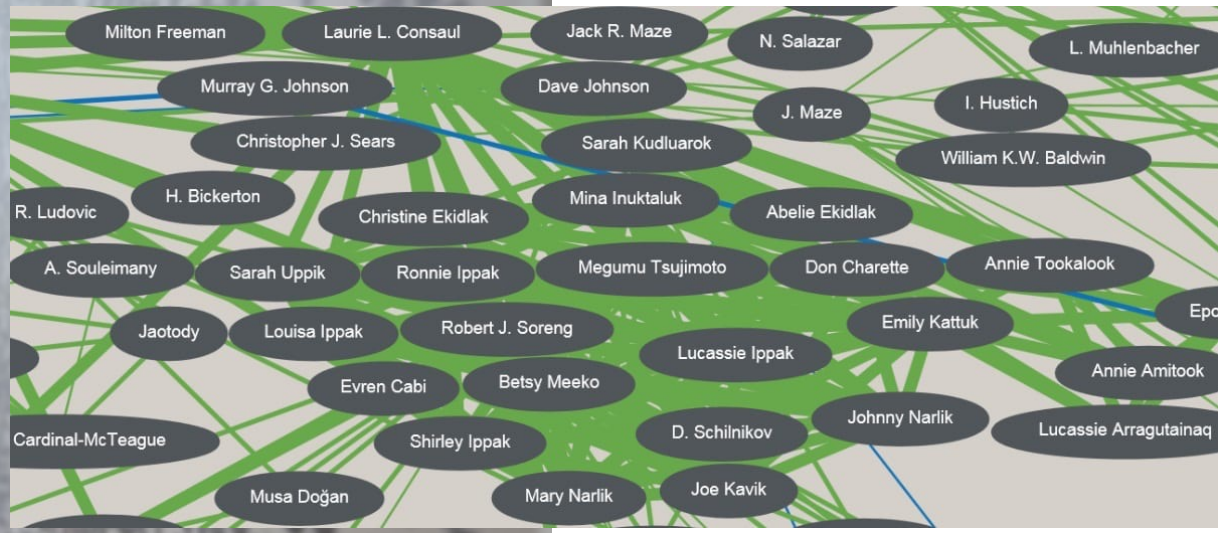
Annie Tookalook

QTSA03EN

Annie Tookalook

Sanikiluaq

Annie Tookalook was born in 1942 in an outpost camp near Sanikiluaq. Her testimony includes memories of nomadic life and settlement in North Camp (Sanikiluaq). She remembers all the dogs being killed during the settlement period. Annie recalls being happy about it because she was scared of dogs attacking each other. Her family never bred dogs after that. She lived in Moose Factory for three years, after she was diagnosed with tuberculosis.



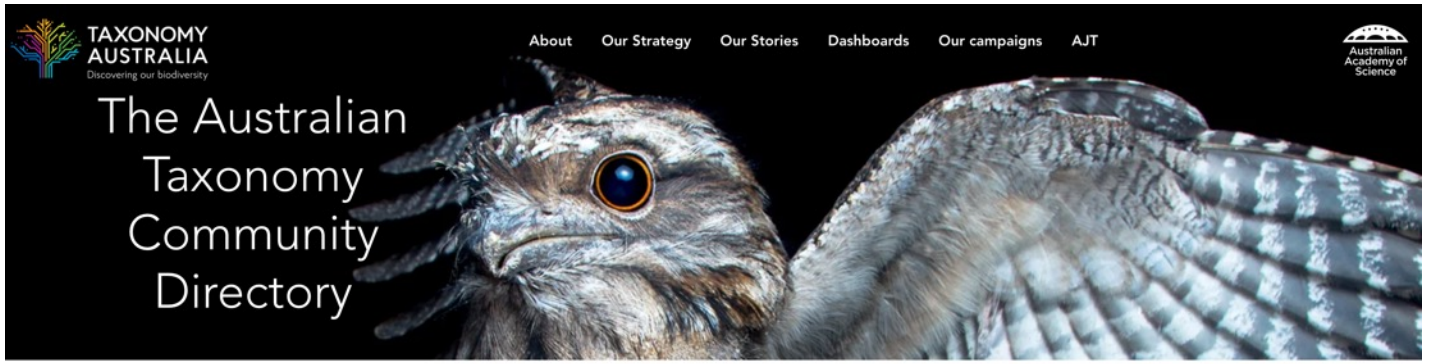
Why the Who?

PUBLIC DOMAIN

CC BY SA

Attribution: Alexrk translated by Cäsium137 (T.)

Why the Who?



The Australian Taxonomy Community Directory provides information about, and access to, the expertise of members of the Australian taxonomy community. There are currently 186 people in the Directory.

Haven't joined yet? Join here. Need to update? Edit my profile.

Search or filter the Directory: By Name | By Taxonomic Groups | By Institution | By Text

Alex Kenins

Profile >

Michela Mitchell

Cnidarian Collection Manager

Museum of Tropical Queensland (QLD Museum Network)

Profile >

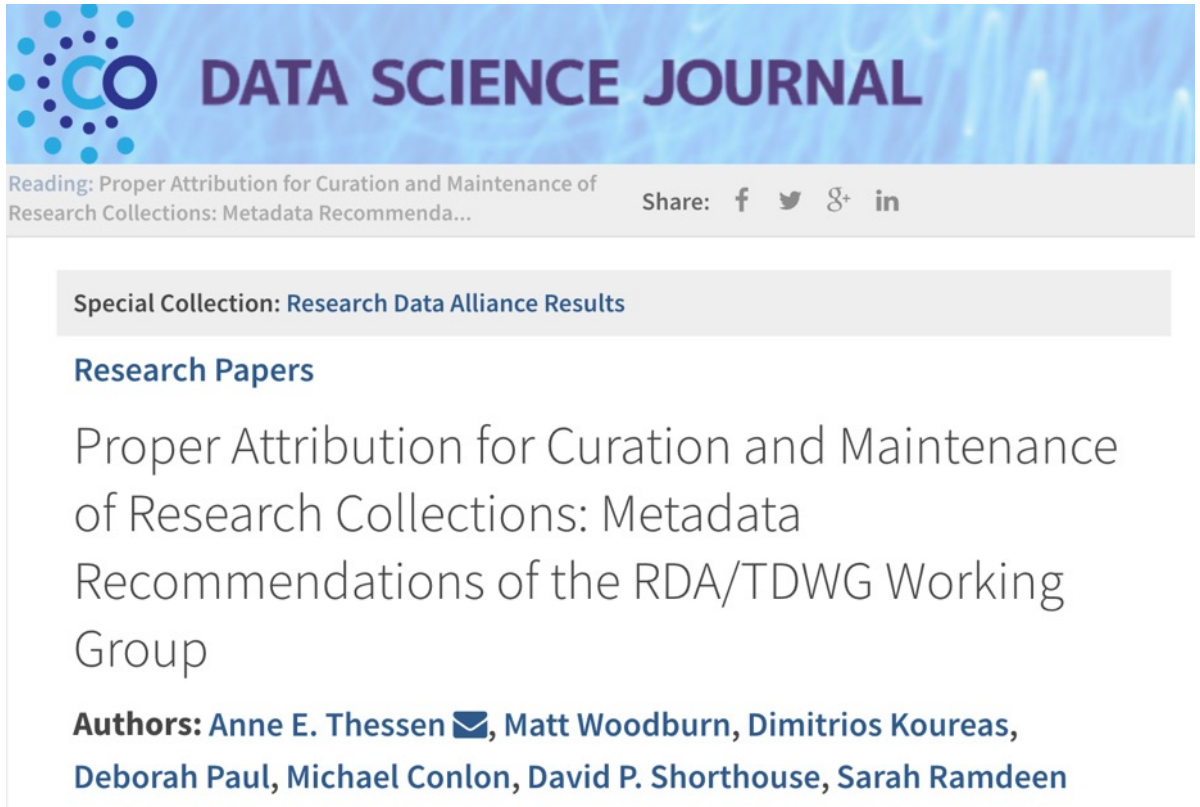
European Red List of Insect Taxonomists

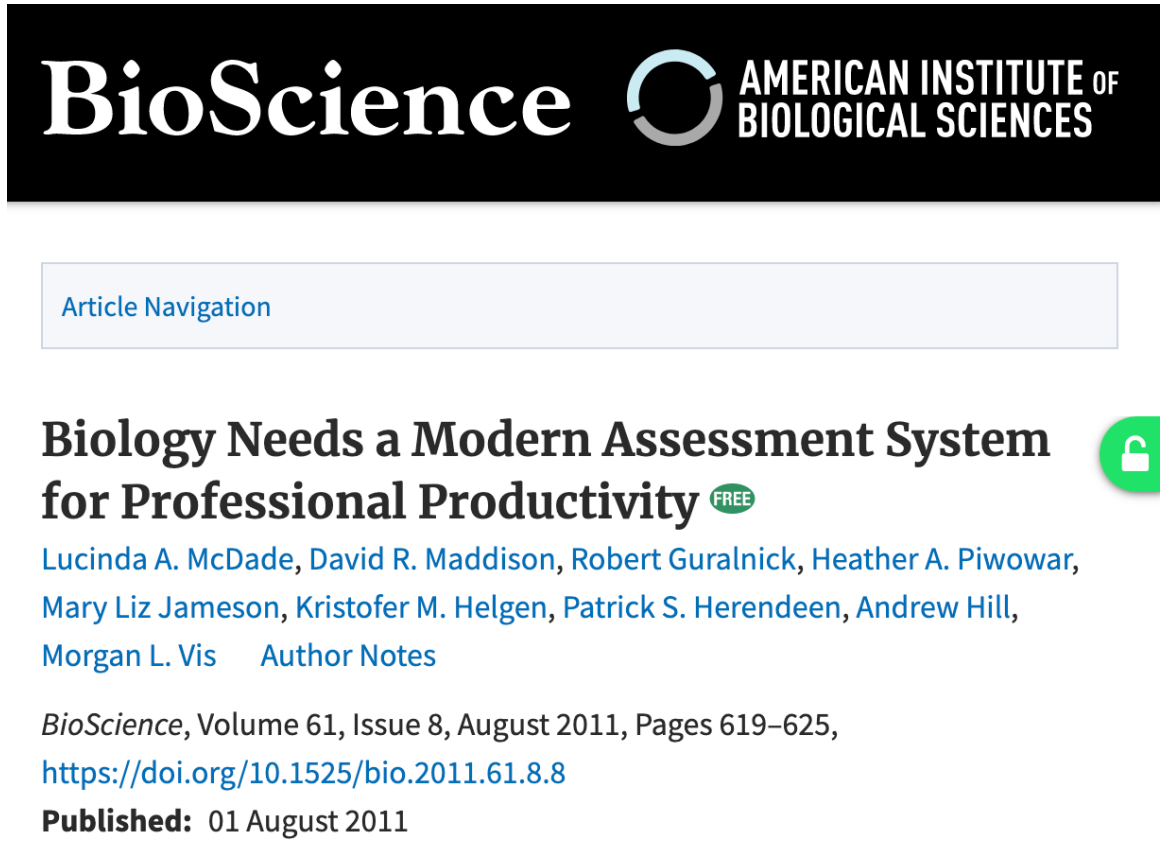
The **European Red List of Insect Taxonomists** provides assessment of the status and capacity of taxonomic expertise for insects in Europe.

European Commission | IUCN SSC | CETAF | PENSOFT

Why the Who?

People require credit, attribution, or recognition to accurately reflect work performed





COMMENT | 04 June 2019 | Correction 05 June 2019

Credit data generators for data reuse

To promote effective sharing, we must create an enduring link between the people who generate data and its future uses, urge Heather H. Pierce and colleagues.

Heather H. Pierce, Anurupa Dev, Emily Statham & Barbara E. Bierer

https://doi.org/10.1038/d41586-019-01715-4

Declaration of Research Assessment (DORA)

Improve how scholarly research is evaluated

Advance practical and robust research assessment globally & across all scientific disciplines

Developed in San Francisco in 2012; 23k individuals and institutions have signed

- Covering funders, publishers, professional societies, institutions, researchers

How Do We Know Who is Who?

GBIF Global Biodiversity Information Facility

F. W. H. A. von Humboldt
F.W.H.A. von Humboldt
Humboldt
Humboldt, Friedrich W.H.
F. W. Humboldt
humboldt
Humboldt,F.W.H.A. von
Humboldt, F. W. H. A.
F. W. H. A. Humboldt
Humboldt, F.W.H.
F. W. H. A. von Humboldt et al.
Humboldt,H.
von Humboldt, F.W.H.A.

ex herb. Humboldt
Humboldt,A. von
Humboldt, F.W.H.A.v
Humboldt, F.W.H.A.
A. von Humboldt
[Humboldt]
Humboldt, Alexander
Humboldt, F.W.H.A. v
Humboldt, A. de
Humboldt ?
A. Humboldt
Humboldt A
[Humboldt], F.W.H.A.v.

Humboldt, FWHA von
Humboldt, F.W.H.A.v.
Humboldt, F.W.
Humboldt, A. de (Coll. Kew)
Humboldt, A.
H. Humboldt
F.W.H.A. von Humboldt|WILLD
Al. Humboldt
Baron von Humboldt
Friedrich Wilhelm Heinrich Alexander von Humboldt
Alexander Freiherr von Humboldt
Humb.
Alexander von Humboldt

Biodiversity Data Journal 10: e86089
doi: 10.3897/BDJ.10.e86089

Methods

The disambiguation of people names in biological collections

Quentin Groom[‡], Christian Bräuchler[§], Robert W. N. Cubey[|], Mathias Dillen[‡], Pieter Huybrechts[‡], Nicole Kearney[¶], Niels Klazenga[#], Siobhan Leachman[¤], Deborah L Paul[«,»], Heather Rogers[^], Joaquim Santos[˅], David Peter Shorthouse[¦], Alison Vaughan[#], Sabine von Mering[?], Elspeth M Haston[|]

Can we put all this together in a way that:

Handles the very long tail of legacy specimen data

Makes use of available, machine-readable resources

Does not invent any new identifiers for people

Gives control to participants

Gives agency to contributors

Offers downloads and access points to spark creativity

Gets us thinking more precisely about specimens in credit systems

GBIF | Global Biodiversity Information Facility

Biodiversity Information Standards

TDWG

Darwin Core Terms

recordedBy

(collector & collector teams)

identifiedBy

(determiner)

https://www.wikidata.org

WIKIDATA

https://orcid.org

http://www.wikidata.org/entity/Q6694

https://orcid.org/0000-0001-7618-5230

Bionomia

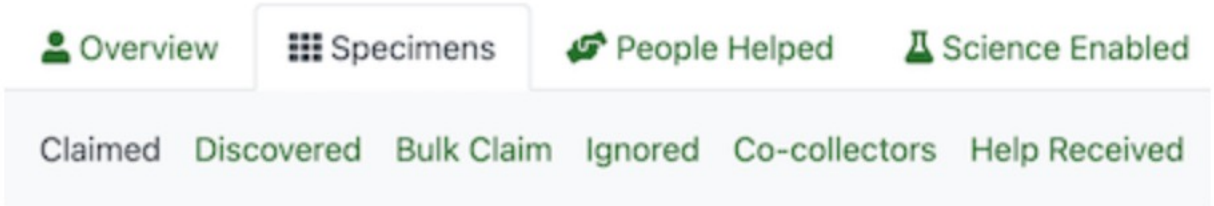
https://bionomia.net

English, Spanish, French, Portuguese, German
Crowdin: https://translate.bionomia.net/
Special thanks to Jennifer C. Girón Duque, Marianna Simões, and Patrick Mates

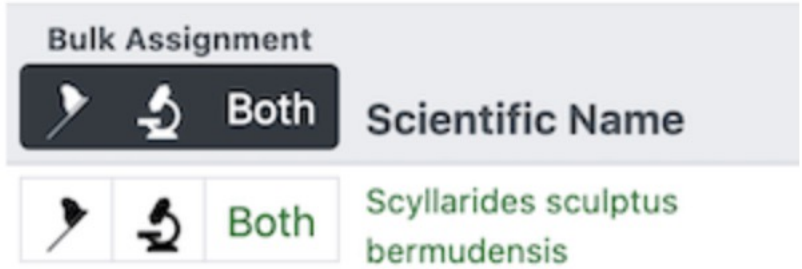
Four Steps...to claim the specimens you collected or identified and to help acknowledge your peers, mentors, and organizations

Step 1: Authenticate via ORCID

Step 2: Visit the Specimens tab



Step 3: Claim your specimens



Step 4: Attribute specimens to others

Jennifer Mandel

Jennifer R. Mandel

https://orcid.org/0000-0003-3539-2991

https://en.wikipedia.org/wiki/Jennifer_R._Mandel [View]

Public Profile Refresh Settings

Jennifer Mandel Search

Discovered 5 Fix Attributions Reclaim Ignored Bulk Attributions

Help attribute 5 specimens. Choos s exact Advanced Search & Filter

Bulk Assignment

Both

Bulk Assignment

Both

Both

Bulk Assignment	Scientific Name		Collected	Date Identified	Family	Institution	Catalog Number	Type Status	Basis Of Record	
Both	Hydrachnidae		1-05	2010	Hydrachnidae	Ohio State University Acarology Laboratory, Columbus, OH (OSAL)	OSAL 0080989		PRESERVED_SPECIMEN	Not them
Both	Chalcophorella (Stigmatophorella) bagdadensis subsp. quadrimaculata (Redtenbacher 1850) Frank 2020	Mandel			Buprestidae				MATERIAL_CITATION	Not them

Erica Krimmel

Erica Rose Krimmel; Erica R. Krimmel

library science, information science, data management, digital curation, collections, biodiversity informatics, natural history, data visualization

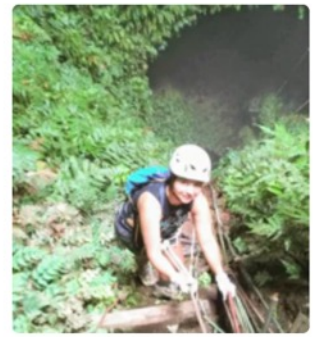
I am a biodiversity information scientist who works with researchers and other data providers to maximize the accessibility and usefulness of their data. My driving goal is to make biodiversity data of all scales accessible and useful. For this purpose...

https://orcid.org/0000-0003-3192-0080

United States

Krimmel, Erica. 2023. Natural history specimens collected and/or identified and deposited. [Data set]. Zenodo. https://doi.org/10.5281/zenodo.6772688

DOI 10.5281/zenodo.6772688



Andrea Acurio

Andrea E. Acurio

Taxonomy, Systematics, Drosophilidae

My research centers on understanding the evolutionary process that has shaped patterns of diversification and endemism in Terrestrial Invertebrates. I combine molecular, morphological and field approaches for the study of co-evolution, character evolut...

https://orcid.org/0000-0002-1792-7107

Ecuador Spain France United States

Acurio, Andrea. 2023. Natural history specimens collected and/or identified and deposited. [Data set]. Zenodo. https://doi.org/10.5281/zenodo.6658453

DOI 10.5281/zenodo.6658453

Joaquim Santos

Joaquim Miguel Nunes dos Santos

https://orcid.org/0000-0002-2160-4968

Portugal

Santos, Joaquim. 2023. Natural history specimens collected and/or identified and deposited. [Data set]. Zenodo. https://doi.org/10.5281/zenodo.4127102

DOI 10.5281/zenodo.4127102

Settings & Integrations

Make Your Data Citable

Connect your account to Zenodo where versioned snapshots of your claims will be stored and a DataCite DOI assigned. A citation will be provided for inclusion in your resume.

Integrate with Zenodo

zenodo Search Upload Communities

June 28, 2022 Dataset Open Access

Natural history specimens collected and/or identified and deposited.

Erica Krimmel

Natural history specimen data collected and/or identified by Erica Krimmel, https://orcid.org/0000-0003-3192-0080. Claims were made on Bionomia, https://bionomia.net using specimen data from the Global Biodiversity Information Facility, https://gbif.org.

Preview

action	gbifID	datasetKey	license	occurrenceID
identified	1702731771	16965647-4120-4e0b-aa57-	CC0_1_0	http://arctos.database.museum/guid/CHAS:Bird:201 seid=3240389

ORCID
Connecting research and researchers

https://orcid.org/
0000-0003-3192-0080

Natural history specimens collect

2022-06-28 | Data set
DOI: 10.5281/ZENODO.6772688
CONTRIBUTORS: Erica Krimmel

Show more detail

Source: Erica Krimmel

Joaquim Santos

Joaquim Miguel Nunes dos Santos

https://orcid.org/0000-0002-2160-4968

Portugal

Santos, Joaquim. 2023. Natural history specimens collected and/or identified and deposited. [Data set]. Zenodo. https://doi.org/10.5281/zenodo.4127102

DOI 10.5281/zenodo.4127102

Scribes

234 people who have attributed 20.2 Million natural history specimens to 9,641 of their peers, mentors, and role models

von Mering, Sabine
Germany

1,654,693 specimens attributed **975** people helped

Rindal, Eirik
Norway

5,898 specimens attributed **7** people helped

Leachman, Siobhan
New Zealand

5,125,115 specimens attributed **3,064** people helped

Løfall, Bjørn Petter
Norway

7,068 specimens attributed **22** people helped

Endresen, Dag
Norway

2,626,614 specimens attributed **702** people helped

Bräuchler, Christian
Germany; Austria

273,939 specimens attributed **15** people helped

Groom, Quentin
Belgium

324,251 specimens attributed **360** people helped

Meeus, Sofie

6 specimens attributed **2** people helped

Santos, Joaquim
Portugal

2,515 specimens attributed **6** people helped

Haston, Elspeth

4,705 specimens attributed **9** people helped

Cubey, Robert
United Kingdom

277,803 specimens attributed **55** people helped

BRAUN, Paul Jean-Charles
Luxembourg

41,386 specimens attributed **70** people helped

Downloads

List of Public Profiles

bionomia-public-profiles.csv

Includes a header, "Family, Given, wikidata, ORCID, URL"

Attributions Made to Public Profiles

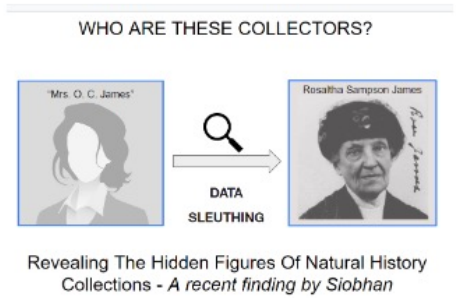
bionomia-public-claims.csv.gz (101.72MB, updated 2022-04-27 03:31:49 +0000)

Includes a header, "Subject, Predicate, Object" and each row resembles:

https://gbif.org/occurrence/1801358422, http://rs.tdwg.org/dwc/iri/identifiedBy, https://orcid.org/0000-0001-9008-0611

BiCIKL

20 – 24 September, 2021 Hackathon
Meise Botanic Garden, Belgium
Hidden Women in Science



Revealing The Hidden Figures Of Natural History Collections - *A recent finding by Siobhan*

Revealing Hidden Figures in Natural History Collections Working Group BIOME 2022 Recap

Author(s): Adania Flemming[1], Siobhan Leachman[2], Makenzie Mabry, Molly Phillips[3], Shawn Elizabeth Zeringue-Krosnick[4], Jennifer Kovacs[5], Olubunmi Aina[6]

Guidelines for Using Wikidata to Mobilize Information about People in Collections: A Paleontology Perspective

Created by: (authors listed alphabetically) Jennifer Bauer, Roger Burkhalter, Talia Karim, Erica Krimmel, Margaret Landis, Siobhan Leachman, Holly Little, Malena Lorente, Suzanne K. Mills, Nicole Neu-Yagle, Ben Norton, Deborah Paul, David Shorthouse, Jessica Utrup, Jacob Van Veldhuizen, and Lindsay Walker, with input from participants of the *Using Wikidata to Capture and Share Information about People in Paleontology* workshop.

NOTE

Should you wish to credit this document, please cite as: Bauer J, Burkhalter R, Karim T, Krimmel E, Landis M, Leachman S, Little H, Lorente M, Mills SK, Neu-Yagle N, Norton B, Paul D, Shorthouse D, Utrup J, Van Veldhuizen J, and Walker L. 2022. *Guidelines for Using Wikidata to Mobilize Information about People in Collections: A Paleontology Perspective.* https://doi.org/10.5281/zenodo.6977243

Herbarium Berolinense, Berlin (B)

https://gbif.org/dataset/85714c48-f762-11e1-a439-00145eb45e9a

The herbarium of the Botanic Garden and Botanical Museum Berlin-Dahlem (herbarium acronym: B) is the largest in Germany and holds a collection of more than 3.5 million preserved specimens. All plant groups – flowering plants, ferns, mosses, liverworts, and algae, as well as fungi and lichens – are represented in the collections which are worldwide in scope. Associated with the general herbarium are special collections of dried fruits and seeds, wood samples, and specimens preserved in alcohol. The collections of the herbarium are growing constantly through field research conducted by staff, and through gifts, acquisitions, and exchanges of specimens from other herbaria

DOI 10.15468/dlwwhz

People | Visualizations | Scribes | Agent Strings

1,242 people claimed or were attributed specimens represented in this dataset

Progress 55%

Frictionless Data

Frictionless Data

Descriptor (JSON)

Users (csv, zip)
Problem Collector Dates (csv, zip)
Occurrences (csv, zip)
Attributions (csv, zip)
Articles (csv, zip)
Article Occurrences (csv, zip)

Created 2023-03-06 02:18:33 UTC

Aaronsohn, Aaron
* May 21, 1876 – May 15, 191
United Kingdom of Great Brit
and Ireland

Collected Apiaceae and identifie
Apiaceae

41 specimens claimed

Abbe, Lucy Elizabeth Boothroyd
* December 28, 1906 – March 19, 1992 †
United States

Collected Fagaceae and identified Betulaceae

2,118 specimens claimed

Abbott, William Louis
* February 23, 1860 – April 02, 1936 †
United States

Collected Vespertilionidae and identified Saccolomataceae

5,617 specimens claimed

Acocks, John Phillip Harison
* April 07, 1911 – May 20, 1979 †
South Africa

Collected Iridaceae and identified Aizoaceae

1,222 specimens claimed

Adamović, Lujo
* July 31, 1864 – July 19, 1935 †
Serbia; Austrian Empire; Yugoslavia; Cisleithania

Collected Asteraceae and identified

Adams, Laurence George
* 1929 – 2014 †
Australia

Collected Myrtaceae and identified Caryophyllaceae

Aellen, Paul
* May 13, 1896 – August 19, 1973 †
Switzerland

Collected Asteraceae and identified Amaranthaceae

Biodiversity Information Standards

TDWG

Darwin Core Terms new

recordedByID

http://www.wikidata.org/entity/Q6694

identifiedByID

https://orcid.org/0000-0001-7618-5230

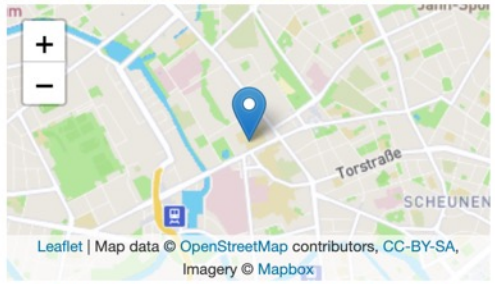
Transitive Credit?

> *A single visit to a distant museum by a graduate student to examine and identify specimens can have a significant impact on her career. It also carries with it, her affiliation with her graduate school.*

Museum of Natural History Berlin

Berlin, Berlin, DE

https://www.museumfuernaturkunde.berlin



https://www.wikidata.org/wiki/Q233098

Current | Previous | Metrics | Science Enabled

Impact on Activities in Other Organizations

Current and previous personnel have claimed or were attributed specimens now curated at the following organizations while affiliated with Museum of Natural History Berlin.

All Years

Specimens Collected

26 organizations — **1,061** specimens

MPEG	369
NRM	305
SAM	178
WAM	55

Specimens Identified

7 organizations — **800** specimens

MCZ	525
SAM	99
RBINS-Scientific Heritage	92
NRM	36

Photograph by: Tom Marcello

“You not only have to know your own instrument, you must know the others and how to back them up at all times.”

– Oscar Peterson