

SoRo Portal Advancement Office Hours

May 5, 2022



iDigBio
Integrated Digitized Biocollections



Agenda

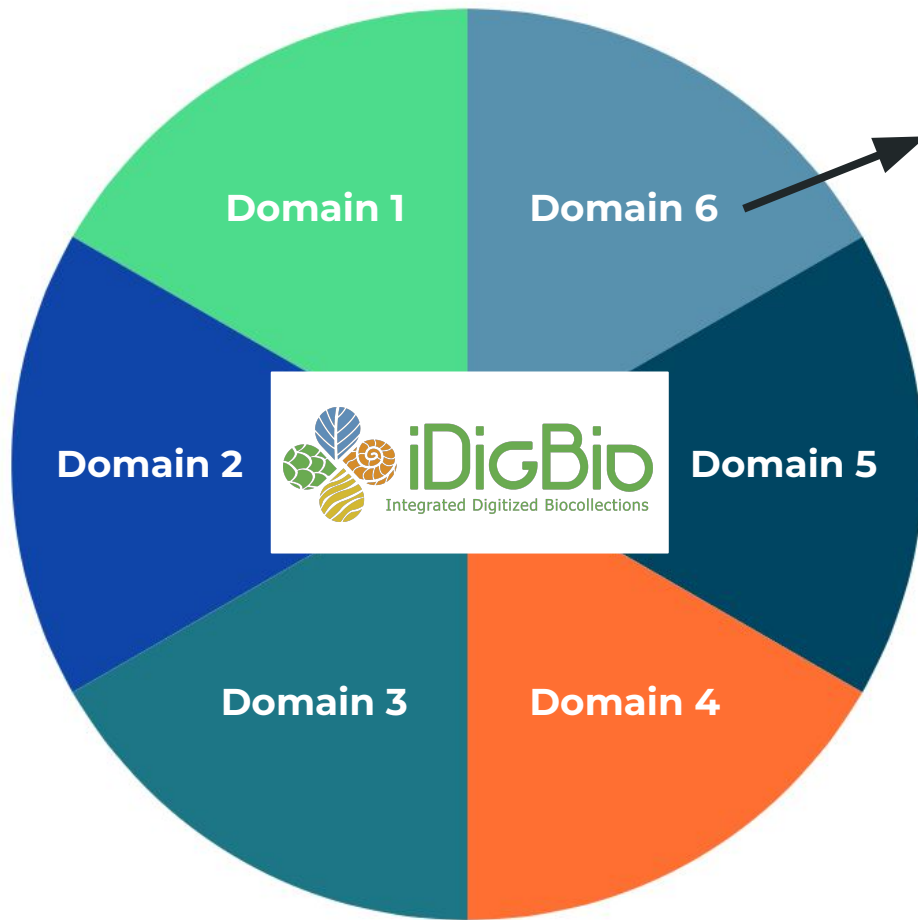
1. Refresher: what/who are **iDigBio** and the **Symbiota Support Hub**?
2. Portal Advancement Campaign: goals and schedule
3. SoRo history, stats, and activity
4. Potential SoRo contributors
5. Resources and services available
6. Portal housekeeping
7. Your needs and wants
8. Next week prep

Questions and comments welcome!
(use chat and/or raise your Zoom hand)

Who are iDigBio & the Symbiota Support Hub?



- National Resource for Advancing Digitization of Biodiversity Collections (ADBC) funded by the National Science Foundation
- 1st NSF grant 2011-2016, 2nd grant 2016-2022, **3rd grant 2022-2027 (sustaining)**



Symbiota
Support Hub

Symbiota Support Hub (SSH) Mission



- **Help Desk support** for portal data access, publication, sharing, and management.
- Scalable development, management, and dissemination of **documentation** for all categories of Symbiota users.
- Hosting **webinars, trainings, and workshops** to improve community capacity.
- Implementation of a **sustainable business plan** for Symbiota portal communities.

help@symbiota.org

Symbiota Support Hub Team



Jenn Yost
Community
Lead



Katie Pearson
Data Manager



Greg Post
IT & System
Administrator



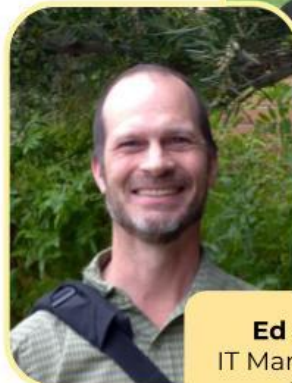
**Samanta
Orellana**
International
Community
Coordinator



Lindsay Walker
Community Manager



Nico Franz
Management @ASU



Ed Gilbert
IT Management
Lead



Laura Prado
Biodiversity
Informatician

SSH is here to **support**
existing communities
and managers, not
replace them.



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Portal Advancement Campaign: Goals

- Improve data quality, accessibility, and mobilization
 - Ensure metadata is up to date
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 - Incorporation of data from collections not currently in the portal
- Identify and incorporate portal improvements or desired modules
- Identify current needs and potential avenues for future support from iDigBio and/or SSH

Portal Advancement Campaign: Schedule

- **May 5th:** Getting to know SoRo & the SSH, existing needs and resources
 - Intro to the campaign
 - Your feedback and needs
 - General housekeeping
- **May 12th:** Data quality issues and data cleaning
 - Demo data cleaning tools
 - Questions about batch cleaning options and Darwin Core alignment
- **May 19th:** Publishing your data to GBIF
 - Why it matters
 - How to do it
- **May 26th:** New portal tools and improvements
 - What tools exist in other portals that SoRo would like in theirs?
 - Wish list: tally of tools that could be developed by future grants

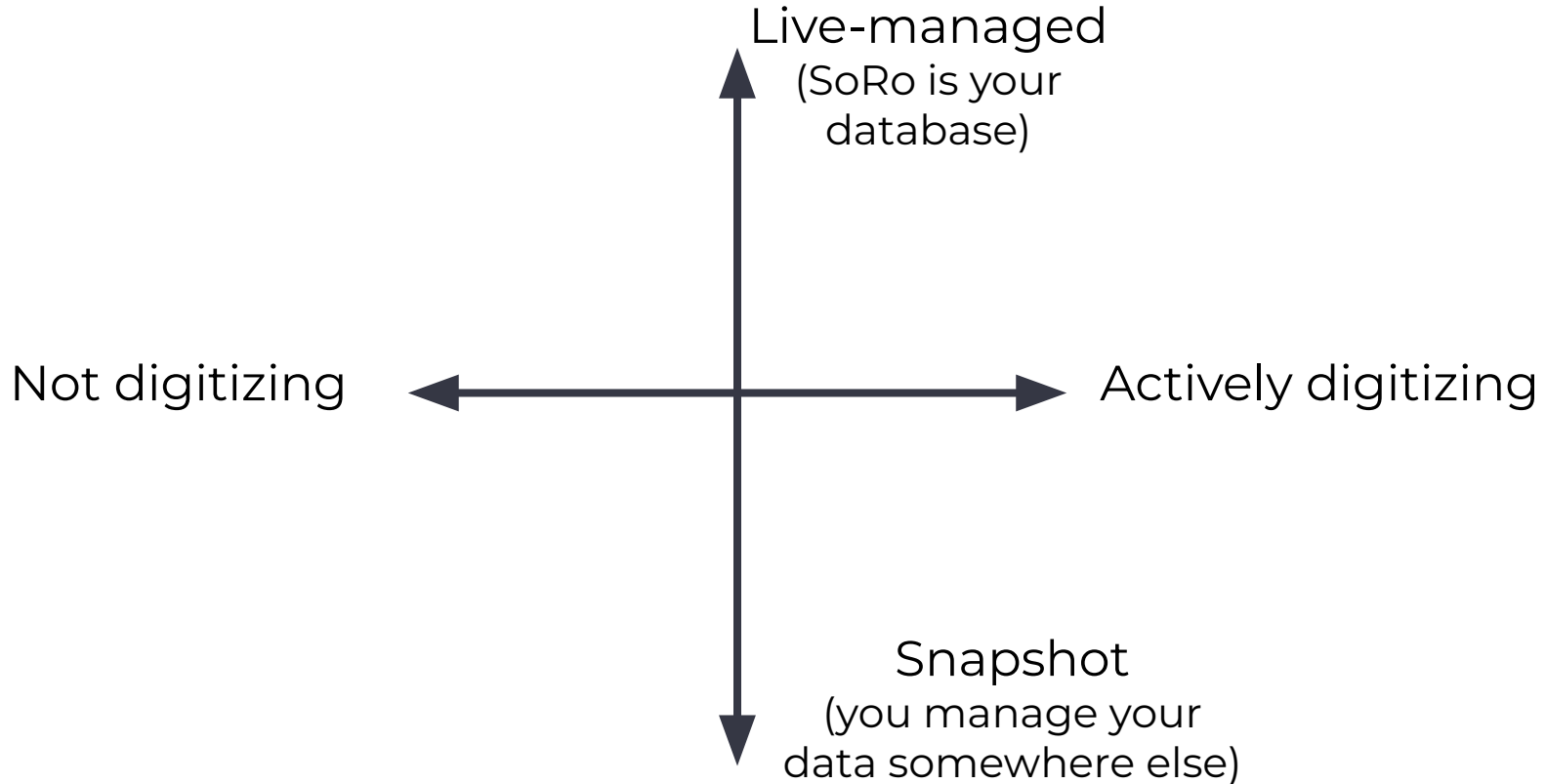


All at
1:00 PM
MDT

What we need from you:

- Ideas
 - Feedback
 - Interact with us as much as possible
 - Take a look at your collection and give it a little extra attention this month
 - Let us know how we can help
 - Respond to our emails with questions
-

We can help you wherever you are



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SoRo History

- **Rocky Mountain Herbaria**
 - Existed as a node, but no dedicated portal
- **Consortium of Southern Rocky Mountain Herbaria**
 - Several attempts were previously made to form a funded consortium
 - Funded in 2017 on second submission
- **Rocky Mountain Herbarium... Rocky Mountain Herbaria**
 - We rebranded to avoid confusion and ~alongside the launch of the Canadian Symbiota node since the Northern Rockies would be in the Canada node
- **SoRoHerbaria.org**
 - Launched in 2017 along with the TCN
- **SoRoHerbaria.org 2.0**
 - Plan to update and modernize the site in NCE



...and friends!

SoRo TCM

Arizona-New Mexico Chapter

Deaver Herbarium (NAU)
Navajo Nation Herbarium
San Juan College
University of New Mexico

Pacific Herbaria (currently in CCH2)

California Botanic Gardens

Northern Great Plains

Black Hills State University
Chadron State College

Mid Atlantic Herbaria

New York Botanic Gardens

Consortium of Northeastern Herbaria

Brown University
Harvard University
Yale University

SoRo

Adams State
Colorado College
University of Colorado
Fort Lewis College
University of Northern Colorado
Colorado Mesa
Rocky Mountain Biological Station
Rocky Mountain Herbarium
Western State Colorado University

Non-funded affiliates

Colorado State University
Denver Botanic Gardens

Non-TCN SoRo collections

Bitterroot National Forest Herbarium

Bureau of Land Management, Grand Junction Field Office Herbarium

City of Boulder Herbarium

Colorado State University - Pueblo

Devils Tower National Monument

Florissant Fossil Beds National Monument

Fort Laramie National Historic Site

Kathryn Kalmbach Herbarium

Mesa Verde National Park

Trinidad State Junior College

University of Calgary Herbarium



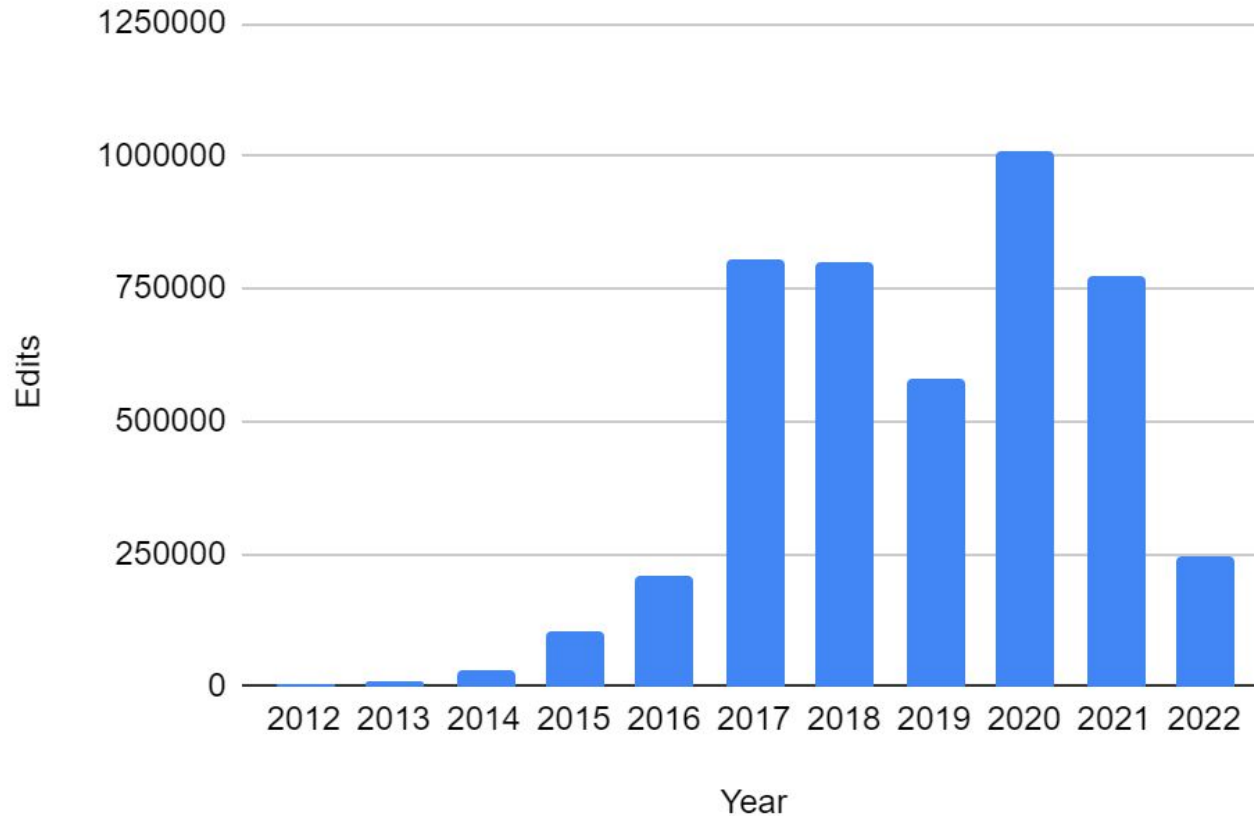
- 33 collections
 - 21 live-managed
 - 12 snapshots
- 4,588,888 occurrences
 - 3,115,423 images
 - 2,247,407 (49%) georeferenced
 - 5,800+ type specimens

55%
(18 coll.)
publishing
to iDigBio

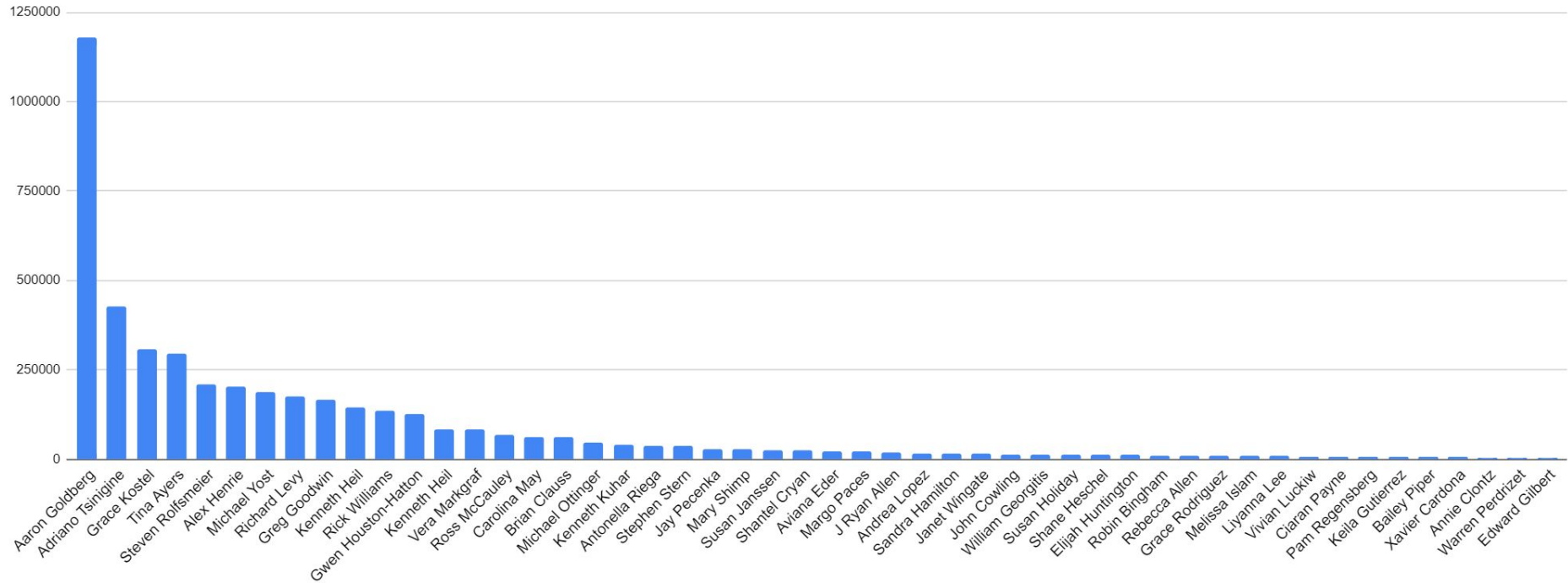
33%
(11 coll.)
publishing
to GBIF

(Stats as of March 2022)

Edits Over Time



Top 50 Editors



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Potential SoRo contributors

Who are we missing?

Do you have contacts at any of these collections?

Suggestions about who to focus on first?

Suggestion form: <https://bit.ly/new-portal-contributors>

- University of Wyoming (WYAC, different from RM?)
- Rocky Mountain Forest and Range Experiment Station, USDA Forest Service (ALBU, ASUF)
- Colorado State University, Center for Environmental Management of Military Lands (CMML)
- Bridger Teton National Forest, USDA Forest Service (BTJW)
- Grand Teton National Park (GRTE)
- Central Wyoming College (CWC)
- USDA-ARS Poisonous Plant Research Lab (PPRL)

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Symbiota Documentation

Growing archive of help files for one of the most popular Natural History content management systems

Quick search for terms here. Press enter to go to results page.



symbiota.org/docs

Browse articles by subject



User Guide

Learn to access, view, and download data and checklists.



Editor Guide

Learn to edit, manage, Import, and export data in Symbiota portals



Collection Manager Guide

Learn to clean data, edit permissions, upload data, and perform other administrator functions.

YouTube Channel



Symbiota
46 subscribers

CUSTOMIZE CHANNEL

MANAGE VIDEOS

HOME

VIDEOS

PLAYLISTS

CHANNELS

ABOUT



Uploads ▶ PLAY ALL



CCH2 Lunch Break: Linked Resources Tab

1 view • 1 day ago



Importing Collectors' Data into Your Collection Database

14 views • 3 weeks ago



Taxonomic Cleaning Tool in a Symbiota Portal

13 views • 3 weeks ago

CC



Data Editor and Administration Control...

17 views • 3 weeks ago

CC



Uploading Text Files to a Symbiota Portal

6 views • 4 weeks ago

CC

<https://bit.ly/symbiota-recordings>

Any materials
you'd like to
add?

Let us know!

Symbiota Docs on GitHub

BioKIC / symbiota-docs Public

Unwatch 6 Star 0 Fork 0

<> Code Issues 12 Pull requests Discussions Actions Projects 2 Wiki Security Insights Settings

General

Welcome to symbiota-docs Discussions!

arbolitoloco

Announcements

We are the Symbiota Support Hub

themerekat

Search all discussions

New Top: All Answered Unanswered Label

New discussion

Categories

- View all
- Announcements
- Funding
- General
- Q&A

0

Add catalog number to label printing tools

themerekat started 5 days ago in Wish List

0

1

We are the Symbiota Support Hub

themerekat announced 5 days ago in Announcements

0

1

Welcome to symbiota-docs Discussions!

arbolitoloco started on Mar 15 in General

0

<https://github.com/BioKIC/symbiota-docs/discussions>

Help Desk Support

- Ryan is still your point person, but he may send your problems to us at help@symbiota.org

Help Desk Support

- Ryan is still your point person, but he may send your problems to us at help@symbiota.org
- The Symbiota Support Hub can help with backend tasks.

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Portal Housekeeping

- Are you able to log in to your account?

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- Have you updated your statistics lately?

Portal Housekeeping

- Are you able to log in to your account?
- Is the contact information for your account up to date?
- Are you managing your data “live” or as a “snapshot” in SoRo?
- Have you updated your statistics lately?
- Have you considered publishing your data to GBIF?
 - Request to become a publisher here!
<https://www.gbif.org/become-a-publisher>

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Your needs and wants

- What improvements would you like to see in the SoRo portal?
- What are your current challenges and/or frustrations with the portal and/or your data?
 - Georeferencing?
 - Publishing to GBIF?

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Next week: May 12, 2022, 1:00 PM Mountain

We have identified data quality issues in some collections, some of which *we can help batch fix!*

We will email you with data quality information about your collection, along with a **form that we ask you to fill out** to give us permission (or not) to conduct specific batch cleaning steps.

Next week we will provide more information about these data cleaning steps, if desired, and demo the data cleaning tools that you can use to fix other issues.

SoRo Portal Advancement Office Hours

May 12, 2022



iDigBio
Integrated Digitized Biocollections



Agenda

1. Data cleaning tools in SoRo
 - a. Taxonomic Cleaning Tool
 - b. Geography Cleaning Tool
 - c. Batch editing
2. Publishing to GBIF: your first step
3. Looking ahead to next week
4. Data cleaning email follow-up
5. Open Q&A

Data cleaning in a Symbiota portal

https://biokic.github.io/symbiota-docs/coll_manager/data_cleaning/

Data cleaning in a Symbiota portal

- Most useful for live-managed collections, but the tools can help any collection identify where there are misspellings or other systemic issues.

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- Most useful for live-managed collections, but the tools can help any collection identify where there are misspellings or other systemic issues.
- Anything you can't batch fix using these tools, we may be able to help with on the back end. Just ask!

Data cleaning in a Symbiota portal

- Taxonomic Cleaning Tool
- Geography Cleaning Tool
- Batch editing

Taxonomic Cleaning Tool

- Can be used to clean misspellings or orthographic variants and add taxa to the taxonomic thesaurus

The Taxonomic Thesaurus

- Not necessarily a taxonomic authority/resource
- Is not exhaustive
- Does not deal with hybrids or cultivars very well (yet!)
- Does not change the taxonomic names of your specimens

Taxonomic Cleaning Tool

- Can be used to clean misspellings or orthographic variants and add taxa to the taxonomic thesaurus
- Will change the taxonomic name of your specimen, if you click “Remap to taxon”

Taxonomic Cleaning Tool

- Can be used to clean misspellings or orthographic variants and add taxa to the taxonomic thesaurus
- Will change the taxonomic name of your specimen, if you click “Remap to taxon”
- May not fix everything since:
 - the taxonomic thesaurus doesn't deal with hybrids or cultivars very well
 - some taxonomic names might not be in the thesaurus

Geography Cleaning Tool

- Like the taxonomic thesaurus, it is intended to be a resource for data discoverability, not an authority

Batch Editing

- Use caution when using!
- Edits will be tracked in the Review/Verify Edits table

Agenda

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Publishing to GBIF: your first steps

1. Make sure your metadata are accurate
2. Request to become a publisher in GBIF:
<https://www.gbif.org/become-a-publisher>

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Next week

- What is GBIF?
- Why publish to GBIF?
- How to publish to GBIF?

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What we did

- Unmatched taxonomic names
- Unmatched geographic names
- Negated lat/longs / swapped lat/longs
- Inverted minimum and maximum elevation values
- Invalid Basis Of Record

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Taxonomic names:

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- Looked for negative lat/long values in a list of countries that should only have positive lat/long values (and vice versa)
- Tested out what changing the sign of these coordinates would do (ran them through a GBIF tool that checked whether they landed in the correct country).

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Invalid Basis Of Record:

- Looked for any non-standard values in the Basis of Record field (explained here: <https://dwc.tdwg.org/terms/#dwc:basisOfRecord>)

Questions?

Still have questions?
Need individual help?

Ask or schedule a meeting! **help@symbiota.org**

SoRo Portal Advancement Office Hours

May 19, 2022



iDigBio
Integrated Digitized Biocollections



Agenda

1. What is GBIF?
2. Why publish to GBIF?
3. How to publish to GBIF
4. What about iDigBio?
5. Open Q&A

Agenda

1. **What is GBIF?**
2. Why publish to GBIF?
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What is GBIF?

“an **international network** of country and organizational Participants that exists to enable **free and open access to biodiversity data** from all sources and to support biodiversity science, environmental research, and evidence based decision-making.”

GBIF data portal

www.gbif.org



[Get data](#) [How-to](#) [Tools](#) [Community](#) [About](#)



Login

GBIF | Global Biodiversity Information Facility

Free and open access to biodiversity data

[OCCURRENCES](#)

[SPECIES](#)

[DATASETS](#)

[PUBLISHERS](#)

[RESOURCES](#)

Search



[What is GBIF?](#)

[About GBIF United States of America](#)

Delonix regia (Bojer ex Hook.) Raf. observed in Guinea by Anne Helene Paradis (CC BY-NC 4.0)



1,927,619,110

Occurrence records



65,549

Datasets



1,789

Publishing institutions



6,806

Peer-reviewed papers
using data

Agenda

1. What is GBIF?
- 2. Why publish to GBIF?**
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5. Open Q&A

Why Publish to GBIF?

- Greater access to your data → greater visibility for your collection



PUBLISHER | SINCE MAY 3, 2010

Duke University Herbarium

ABOUT METRICS [HOME PAGE](#)

293,276 OCCURRENCES

4 DATASETS

202 CITATIONS

Description: <http://www.biology.duke.edu/herbarium>

Endorsed by: U.S. Geological Survey

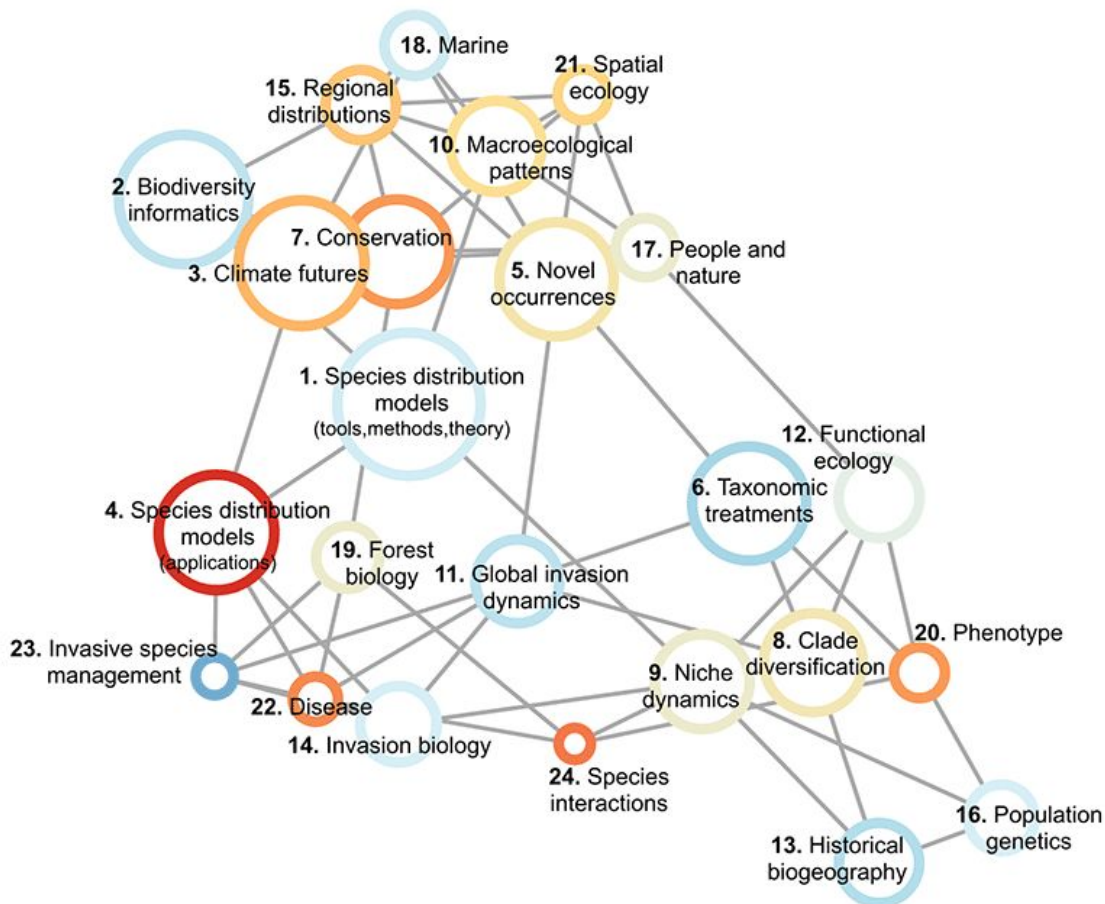
Administrative contact: [Blanka Aguero](#)

Country or area: [United States of America](#)



Why Publish to GBIF?

- Greater access to your data → greater visibility for your collection
- Allows researchers from a broader range of disciplines to compile more comprehensive datasets



Structural topic model results from 4,035 studies that used GBIF-mediated data published between 2003 and 2019.

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- Citation tracking



PUBLISHER | SINCE MAY 3, 2010

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- Citation tracking
- Data quality flags



DATASET METRICS ACTIVITY DOWNLOAD

173,869 OCCURRENCES

73 CITATIONS

OCCURRENCES PER ISSUES AND FLAGS

Issues and flags	Count
Collection match none	173,869
Institution match fuzzy	173,869
Geodetic datum assumed WGS84	70,631
Coordinate rounded	42,669
Recorded date invalid	10,220
Coordinate reprojected	1,549
Taxon match higherrank	743
Taxon match fuzzy	314
Taxon match none	110
Country coordinate mismatch	67

NEXT

OCCURRENCES PER YEAR



Agenda

1. What is GBIF?
2. Why publish to GBIF?
- 3. How to publish to GBIF**
4. What about iDigBio?
5. Open Q&A

Publishing to GBIF


- GBIF doesn't automatically harvest your data regularly.
- To update the data on GBIF, you need to "Create/Refresh Darwin Core Archive" on your Darwin Core Archive Publishing page
- Portal managers will do this regularly (thanks Ryan!)

Darwin Core Archive Publishing

OBI - Robert F. Hoover Herbarium, Cal Poly State University

Use the controls below to publish occurrence data from this collection as a [Darwin Core Archive \(DwC-A\)](#) document that describes the content. The occurrence data file is required, but identifications (determination exchange standard). We recommend that you also review instructions for [Publishing Occurrence Data to](#)

RSS Feed: <https://cch2.org/portal/webservices/dwc/rss.xml>

Title: OBI DwC-Archive 

Description: Darwin Core Archive for OBI - Robert F. Hoover Herbarium, Cal Poly State University

EML: <https://cch2.org/portal/collections/datasets/emlhandler.php?collid=12>

DwC-Archive File: https://cch2.org/portal/content/dwca/OBI_DwC-A.zip

Pub Date: Tue, 01 Feb 2022 09:53:45

Publishing Information

GUID source: symbiotaUUID

GBIF Dataset page: <http://www.gbif.org/dataset/f56df26e-73f5-4d37-bfed-3d46c0834e82>

Publish/Refresh DwC-A Data

- ☒ Include Determination History
- ☒ Include Image URLs
- ☒ Redact Sensitive Localities

Create/Refresh Darwin Core Archive

Publishing to GBIF

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Publishing to GBIF

1. Make sure your metadata are accurate
2. Request to become a publisher in GBIF:
<https://www.gbif.org/become-a-publisher>
3. Once approved, enter your dataset key in “Darwin Core Archive Publishing” in SoRo
4. Email GBIF (helpdesk@gbif.org) requesting permission for SoRo to publish to GBIF.
5. Once approved, publish the data!

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What about iDigBio?

- Once you've published to GBIF, publishing to iDigBio is **very easy**
- The SSH can facilitate publishing to iDigBio for everyone who publishes to GBIF. **Please let us know if you would like to opt out of publishing to iDigBio.**

Questions?

SoRo Portal Advancement Office Hours

May 26, 2022



iDigBio
Integrated Digitized Biocollections



Agenda

- Portal campaign progress
- Demo: some useful tools in SoRo
- Demo: help & resources
- Questions and opportunities
- Next steps & community building

1,043,907



images added over the course of the campaign

- Uploaded to ASU servers
 - Snapshot updates

7,767

taxonomic names indexed to the
central thesaurus

19,048

specimens made searchable



A stylized, light gray background map with white lines representing roads and wavy lines representing water bodies. Several circular navigation icons are scattered across the map, including a tree icon, a location pin icon, and a directional arrow icon.

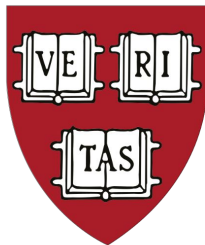
80%

of swapped minimum/maximum elevation values fixed

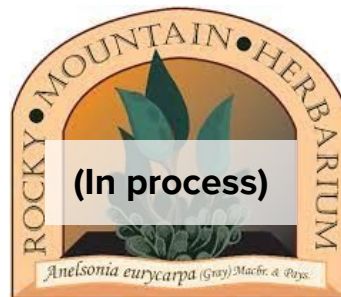
Updated data

NYBG

NEW YORK BOTANICAL GARDEN



HARVARD UNIVERSITY



947,042
specimens
added!

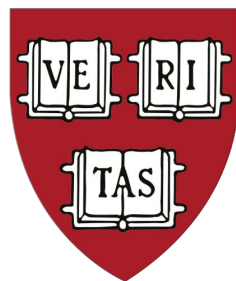
Updated data

NYBG

NEW YORK BOTANICAL GARDEN



947,042
specimens
added!



HARVARD
UNIVERSITY

Newly Publishing to GBIF



18,278
specimens
added!



(And more in process)

Do you have contacts at these herbaria?

- Devils Tower National Monument
- Rocky Mountain Research Station
- Bridger Teton National Forest
- Grand Teton National Park
- Colorado State University

Make suggestions here: <https://bit.ly/new-portal-contributors>

Success Stories

- RMBL publisher in GBIF soon to publish vertebrate and other collections!
- Ryan to collaborate with Symbiota IT manager, Greg Post, to develop improvements to spatial functions this summer
- Identified roadblock for updating RM data in SoRo



Agenda

- Portal campaign progress
- **Demo: some useful tools in SoRo**
- Demo: help & resources
- Questions and opportunities
- Next steps & community building

Useful Tools in SoRo

- Trait scoring tools
- Label customization & printing
- Optical Character Recognition (OCR)
- Crowdsourcing

Agenda

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Help & Resources

- [Symbiota Support Group](#) meetings are once monthly, first Monday of the month at 3:00 EST
- [Symbiota Docs](#)
- [YouTube channel](#)
- [Symbiota Discussions](#) (Wish List & Bug Reports)
- [Portal Campaign recordings](#)

Agenda

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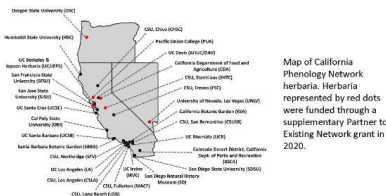


CALIFORNIA PHENOLOGY COLLECTIONS NETWORK

Using digital images to investigate
phenological change in a biodiversity hotspot

WHO ARE WE?

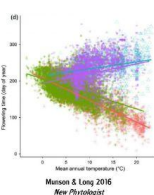
The California Phenology (CAP) Network is a collaboration of 28 California herbaria—collections of preserved plant specimens—that is working to digitize over 1 million specimens by 2023. These data are made publicly available on a newly developed data portal, cch2.org. CCH2 now includes specimen data from 55 herbaria across the state.



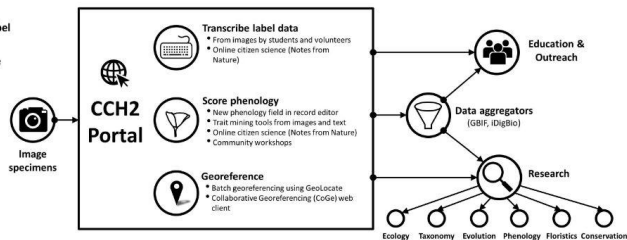
The CAP Network also aims to record the phenological status (e.g., flowering, fruiting) of digitized specimens, generating a massive dataset with which we can answer questions such as:

1. Which species are in the most danger of phenological mismatches?
2. Which habitats and vegetation types are most phenologically sensitive to changes in precipitation and temperature?
3. Where might mismatches occur between flowering plants/agricultural plants and their pollinators, pathogens, and pests?
4. And many more.

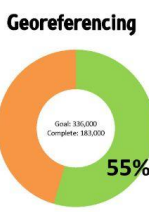
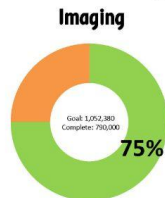
Maximizing the use of herbarium specimens for phenological research is important not only to advance our understanding of ecological change, but also to address potential environmental and agricultural crises in California, home to the most endemic and imperiled flora in the U.S.



WHAT DO WE DO?



WHERE ARE WE NOW?



RESEARCHERS:

Get data on CCH2.org

- Search, view, and download specimen data
- Discover and create species maps and checklists
- Manage and disseminate collection data
- Use specimen and phenological data for research



EDUCATORS & MORE:

Get involved!

- Use CCH2.org data for teaching - see our website for an adaptable research-based undergraduate course
- Learn about herbarium specimens and phenological research on our website: capturingcaliforniasflowers.org
- Get involved on NotesFromNature.org, an easy-to-use website where you can help digitize herbarium specimens!

capturingcaliforniasflowers.org

@CalPhenologyTCN



This project made possible by National Science Foundation Awards 18022501, 18022502, 18022503, 18022504, 18022505, 18022506, 18022507, 18022508, 18022509, 18022510, 18022511, 18022512, 18022513, 18022514, 18022515, 18022516, 18022517, 18022518, 18022519, 18022520, 18022521, 18022522, 18022523, 18022524, 18022525, 18022526, 18022527, 18022528, 18022529, 18022530, 18022531, 18022532, 18022533, 18022534, 18022535, 18022536, 18022537, 18022538, 18022539, 18022540, 18022541, 18022542, 18022543, 18022544, 18022545, 18022546, 18022547, 18022548, 18022549, 18022550, 18022551, 18022552, 18022553, 18022554, 18022555, 18022556, 18022557, 18022558, 18022559, 18022560, 18022561, 18022562, 18022563, 18022564, 18022565, 18022566, 18022567, 18022568, 18022569, 18022570, 18022571, 18022572, 18022573, 18022574, 18022575, 18022576, 18022577, 18022578, 18022579, 18022580, 18022581, 18022582, 18022583, 18022584, 18022585, 18022586, 18022587, 18022588, 18022589, 18022590, 18022591, 18022592, 18022593, 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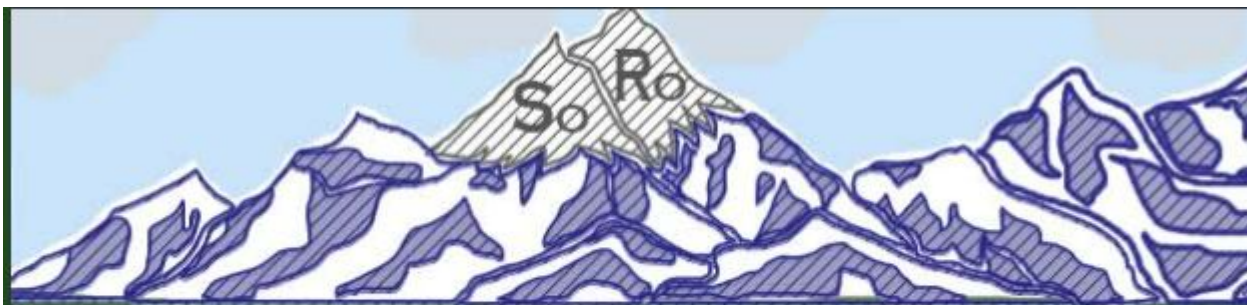


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SEINet

Arizona - New Mexico Chapter

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NORTH AMERICAN BRYOPHYTE HERBARIA

- building a Global Consortium of Bryophytes and Lichens as keystones of cryptobiotic communities -



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Macroalgal Herbarium Consortium



Questions & Opportunities

- SoRo promotional poster / materials
- Data usage policy
- SoRo menu: anything to add or subtract?
 - Crowdsourcing?
 - Datasets?
 - Checklists
- Adding/moving bryophyte, lichen, fungi, algae data?

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