

# Symbiota Working Group

December 15, 2015  
2-3pm EST

## Agenda

- **Statement of Purpose (Neil Cobb)**
- **Portals and their value (Andy Miller)**
- **Symbiota icon (Andy Miller)**
- **Wish list (Anne Barber)**
- **Symbiota Working Group Webinars (Andy Miller)**
- **interoperability between Symbiota and GEOLocate (Michael Denslow)**
- **iDigBio SWG and iDigBio Symbiota in-person workshops (Neil Cobb)**
- **Updates (Neil Cobb)**
- **Open discussion (everyone!)**

# Symbiota Working Group

## Statement of Purpose

The purpose of the Symbiota Working Group is to ensure the growth and sustainability of Symbiota data portals through increased collaborations among portals, developers, and third party entities. The Symbiota Working Group (SWG) goal is to identify levels of collaboration and develop a strategic plan that will help guide the evolution of Symbiota software and the network of communities that use Symbiota. The SWG will focus on five areas: 1) Sharing both expertise and training across portals, 2) Prioritizing development and implementation of added-value functionality, 3) Collaborating in funding solicitations to support continued development and growth of Symbiota, 4) Developing working relationships with third party developers, and 5) Improving portal capacity to serve data for research and educational use.

The Symbiota Working Group is comprised of end users and developers, where end users include primarily managers of Symbiota portals but can be any end user that wants to help improve Symbiota as a software or the data portal functionality. There are over 26 Symbiota portals that have produced over 18 million records that encompass plants, lichens, bryophytes, algae, fungi, invertebrates, and to a lesser degree vertebrates. Symbiota portals primarily function as web portals for museums to submit and annotate specimen or observation records. They then serve the data to aggregators (e.g., iDigBio, GBIF), but they also serve as aggregators as well, and many of the functions in Symbiota portals provide summary information and mapping capabilities. They allow researchers to view potential data sets or educators to compile checklists and distribution maps for use in the classroom. So, an interesting challenge is to know when it is good to develop a capacity in Symbiota, partner with a third party to provide added functionality (e.g., georeferencing, mapping) and when to let another entity provide the functionality (e.g, dedicated aggregator). This is an important point in time to develop a roadmap that will more efficiently guide us over the next few years and beyond.



# Symbiota Portals: 18 million records served through 621 collections in 22 Portals (9 TCN Portals)

## Data Management

### Open access of data

### Management & Oversight

The image displays a collage of 22 Symbiota Portal banners, each representing a different botanical or herbarium network. The banners are arranged in an overlapping, non-linear fashion. Key portals include:

- ARCTIC LICHENS**: Features a world map and lichen specimens.
- Intermountain Region Herbarium Network**: Shows a mountain landscape.
- SERNEC** (Southeast Regional Network of Expertise and Collections): Includes a search bar and navigation menu.
- SEINet Arizona Chapter**: Features a desert landscape and a search bar.
- CNH** (Consortium of Northeastern Herbaria): Includes a map of the Northeast and a search bar.
- FRULLANIA** (collaborative research network): Shows a close-up of a lichen.
- Consortium of NORTH AMERICAN BRYOPHYTE HERBARIA**: Features a moss specimen.
- GREAT LAKES INVASIVES NETWORK**: Includes a logo with leaves and a search bar.
- Consortium of NORTHERN GREAT PLAINS HERBARIA**: Shows a landscape with a purple flower.
- Consortium of NORTH AMERICAN LICHEN HERBARIA**: Features a lichen specimen.
- Invert · E · Base**: Includes a logo with a fly and a search bar.
- Macroalgal Herbarium Portal**: Shows a landscape with water.
- MABA Fauna** (Madrean Archipelago Biodiversity Assessment): Features a landscape with a butterfly.
- MABA Flora** (Madrean Archipelago Biodiversity Assessment): Shows a landscape with a butterfly.
- Neotropical Arthropods**: Includes a logo with a dragonfly and a search bar.
- Consortium of Midwest Herbaria**: Features a landscape with a butterfly and a search bar.
- MYCOLOGY COLLECTIONS PORTAL**: Shows a mushroom specimen.
- Neotropical Flora**: Includes a logo with a dragonfly and a search bar.
- Smithsonian Tropical Research Institute**: Features a logo and a search bar.
- North American Network of Small Herbaria**: Shows a field of yellow flowers.
- New Mexico Biodiversity** (Part of the SEINet Network): Includes a logo with a plant and a search bar.

Welcome to the developing STRI Symbiota Portal

# Value > \$30 million dollars!

The image displays a collage of 22 distinct banners for various Symbiota Portals, arranged in an overlapping, grid-like fashion. Each banner represents a different network or collection, featuring unique logos, titles, and background imagery related to their respective fields. The banners include:

- ARCTIC LICHENS**: Features a world map and lichen specimens.
- Intermountain Region Herbarium Network**: Shows a mountain landscape.
- SERNEC** (Southeast Regional Network of Expertise and Collections): Includes a navigation menu with links like Home, Search Collections, Map Search, State Floras, Dynamic Tools, and Images.
- SEINet Arizona Chapter**: Displays a desert landscape.
- CNH** (Consortium of Northeastern Herbaria): Features a map of the Northeastern United States.
- FRULLANIA** (collaborative research network): Shows a close-up of a lichen.
- Consortium of NORTH AMERICAN BRYOPHYTE HERBARIA**: Includes a small image of a moss.
- GREAT LAKES INVASIVES NETWORK**: Features a stylized logo with leaves and water.
- Consortium of NORTHERN GREAT PLAINS HERBARIA**: Shows a landscape with a purple flower.
- Consortium of NORTH AMERICAN LICHEN HERBARIA**: Includes a close-up of lichen.
- Invert · E · Bas@**: Features a stylized insect logo.
- Macroalgal Herbarium Portal**: Shows a landscape with water and rocks.
- MABA Flanna** (Madrean Archipelago Biodiversity Assessment): Includes a landscape with mountains.
- MABA Flora**: Shows a close-up of a flower.
- Neotropical Arthropods**: Features a butterfly and a flower.
- Consortium of Midwest Herbaria**: Includes a fern leaf.
- MYCOLOGY COLLECTIONS PORTAL**: Shows a close-up of a mushroom.
- Neotropical Flora**: Features a landscape with tropical plants.
- Smithsonian Tropical Research Institute**: Includes a logo and a navigation menu with links like Home, Search, Images, Inventories, Interactive Tools, and Glossary. Below the menu is the text: "Welcome to the developing STRI Symbiota Portal".
- North American Network of Small Herbaria**: Shows a close-up of a yellow flower.
- New Mexico Biodiversity** (Part of the SEINet Network): Includes a logo with a plant and a compass.

# ACKNOWLEDGEMENTS



National Science Foundation (EF1208829, EF1208835, EF1208972, EF1208973, EF1208975, EF1208989, EF1209149).



Symbiota Project



FilteredPush



iPlant Collaborative™ *Empowering A New Plant Biology*



Biota of North America

BONAP

Sym biota

# Symbiota Working Group

## wish list

Symbiota Wishlist											
B	C	D	E	F	G	H	I				
1	institution	portal	Name(s)	your role	wishlist item 1	wishlist item 2	wishlist item 3	wishlist item 4			
2	California Academy of Sciences	Monarch		Project Manager	publication linking	redesign of admin tools, ex.: one admin panel with all tools from Sitemap and Collection Profile page	dupes searching by field number (handy for entomology/disciplines that collect in lots)				
3	Illinois Natural History Survey	MyCoPortal		Lead PI	batch georeferencing across collections within a portal						
4	University of Michigan	MyCoPortal		Project Coordinator & Digitization Technician	Overhaul the public search to include all the options of the "editor search" --- the ability to search all fields, to use wildcards, and to qualify your search with "equals, begins with, not equal to," etc. If researchers are going to use the data and access it through the portal, they need these options.	Exsiccati title & exsiccati number data should appear in table view, and should also be searchable fields. This is important for being able to review transcription work being done by students and other employees, and the search capability will help us locate collection records.	Exsiccati title & exsiccati number data should download with all of the other field data as part of the "occurrences" table when doing a data backup - this is essential considering iDigBio is not going to archive our data. Right now these data do not come with the download. We need to be able to get back whatever we put in.				
5	NAU	SCAN	Neil Cobb	Coordinator	links to publications, published data sets, and more comprehensive links to genetic data. usage stats comparable to idigBio	create email lists of collectors so that when a portal users requests information about a record that the request be sent to the portal manager and the collector.	Create Symbiota version of the RGBIF routine				
6	University of Michigan	Midwest Herbaria/Great Lakes Invasives		Co-PI	Under "Edit Existing Occurrence Records", enable a "is not" or "does not equal" option for custom field 1.	Establish Collaborative Georeferencing - allowing true regional georeferencing across collections within a portal	Ability to select how records are displayed from a search. Default now appears to be alpha by collector, then by date within an institution. Some might like to group duplicates together in search; others might like to group by state, etc.	Main search interface - include a "flag" that allows a user to easily identify which records have images; possibly display a thumbnail like Pacific Northwest consortium does.			Main search interface - when one searches by state to show what states are represented
7	SERNEC	SERNEC		Project Manager	Collection statistics for data views, downloads, etc.						
8	Indiana University	SEINet		Project Coordinator	ability to update taxonomic authority files that populate drop-down menu/picklist for skeletal record entry						
9	Utah State University	IntermountainBiola, OpenHerbarium	Mary Barkworth	Data contributor (SEINet), Manager (OpenHerbarium)	Addition of superorder to ranks, to accommodate APG	Addition of "Publication" to options for BasisofRecord - and ability to include or exclude such records in searches. My preference would be to exclude by default since the floras I am using allow georeferencing but the associated uncertainties are huge.	Ability to exclude from maps records without and uncertainty or an uncertainty greater than a user specified length.	Enable users to view, but not modify, field names. The latter should include the options allowed in the batch upload module. Or create a document for the help pages that shows the field names, adding to it when new fields become available (such as agents, teams). NOTE: Since asking this, I have created a document on batch uploading specimen records that Eric Ribbens is going to check out. There are some statements in it that may not be correct. I shall post it to the group and ask for comments after I have Eric's comments.		Enable easy viewing and download of images if these could be shared with other sources. The other problem is that conflicts. A tool for locating these records. ITIS is probably fine for the find it is seriously lacking for Africa & more apt to include authors for genera. When there have been discrepancies in treatment in Wikipedia - so long as it	
10	Illinois Natural History Survey	INHS Collections Data Portal		Curator of Paleontology	Addition of tables to handle stratigraphic and geological data for paleontological collections; i.e. chronostratigraphic data (e.g. Mesozoic, Cretaceous, etc.) and lithostratigraphic data (names of geological units such as Formations and Members, etc.).						
11	Colgate University	Northeastern Herbaria (CNH)	Jenny Stratton	Data Contributor	Ability to do searches in Determination History tab fields (especially Scientific Name & Determiner), and/or Determination History fields somehow shown in the Table View	No (or at least larger) character limit in Notes field in Determination History tab	Ability to store species authority separately from infraspecific taxon authority, instead of both being tracked in the same authority field (currently, it looks like species authority cannot be entered/displayed if a subspecific taxon exists)				
12	University of Colorado	bolandyb.colorado.edu, Bryophyte Portal, Lichen Portal	Ryan Allen	Project Manager	import process for annotations based on barcode rather than the coreid.	field for Annotators institution.					

# Symbiota Working Group

## Symbiota Working Group

wishlist report | December 2015

The wishlist items as reported by the Symbiota Working Group were incredibly diverse. Let's begin with the most commonly requested items. +X = number of votes.

### +3 resource linking

for publications, checklists, datasets and more comprehensive links to genetic data

### +2 collaborative georeferencing

as in across portals. I believe this project is already being undertaken by Ed and Nelson

### +2 usage statistics

more detailed and comprehensive usage stats similar to iDigBio

### +2 dataset descriptions

a field or set of fields to enter DwC:datasetName for elements like exiscatti and expeditions

### +2 support for geology/paleontology

this is getting into DwC:GeologicalContext territory, but would be great considering the recently awarded paleo TCN

### +1s

add fields:

- DwC:behavior
- DwC:datasetName
- more taxa (superorder, subfamily, etc.)
- annotator's institution
- Publication in basisOfRecord

1. admin redesign (ex: combine all admin tools on user profile page, consolidate Sitemap)
2. include distribution map on species profile pages
3. in search results, indicate which records have images (image icon, etc.)
4. filter map search results by coordinateUncertaintyInMeters
5. public search results sorted by x
6. autoincrement catalog numbers while entering records
7. move fieldNumber next to recordNumber, enable duplicate searching on this field
8. ability to add new taxa in skeletal data entry tool
9. include IS NOT LIKE in custom field search
10. import annotations based on catalogNumber, not Core ID
11. search determination history
12. download taxa trees
13. tools for finding taxa conflicts, errors
14. advanced search for public similar to the one in Edit Occurrence Records
15. ability to email collector along with collection admin
16. Symbiota version of RGBIF routine



# **Symbiota Working Group**

## **Monthly Webinars – January to June 2016**

**January – Collection Management Features, Elizabeth Lippoldt (MiCC)**

**February – Record Creation, Michael Denslow (SERNEC)**

**March – Transcription, Julie Smith (LBCC)**

**April – Georeferencing, Anne Barber (SCAN)**

**May – Crowdsourcing, Mari Roberts (MaCC)**

**June – Webinar Request by users, TBD**

- **Envision 30-45 minutes per webinar**
- **Don't need to do too much work – just open up your favorite portal and start showing users your workflow**
- **Leave plenty of time for questions**

# Symbiota Working Group

interoperability between Symbiota and GEOLocate (Michael Denslow)



# Symbiota Working Group

**iDigBio SWG and iDigBio Symbiota in-person workshops**

3 possible venues

Botany meeting, Ecological Society of America meeting, and Chicago

Include hack-o-thon?

# **Symbiota Working Group**

**Updates**

**Open Discussion**