Onsite Public Engagement in Digitization—Digitization Blitzes and Blitz Kits

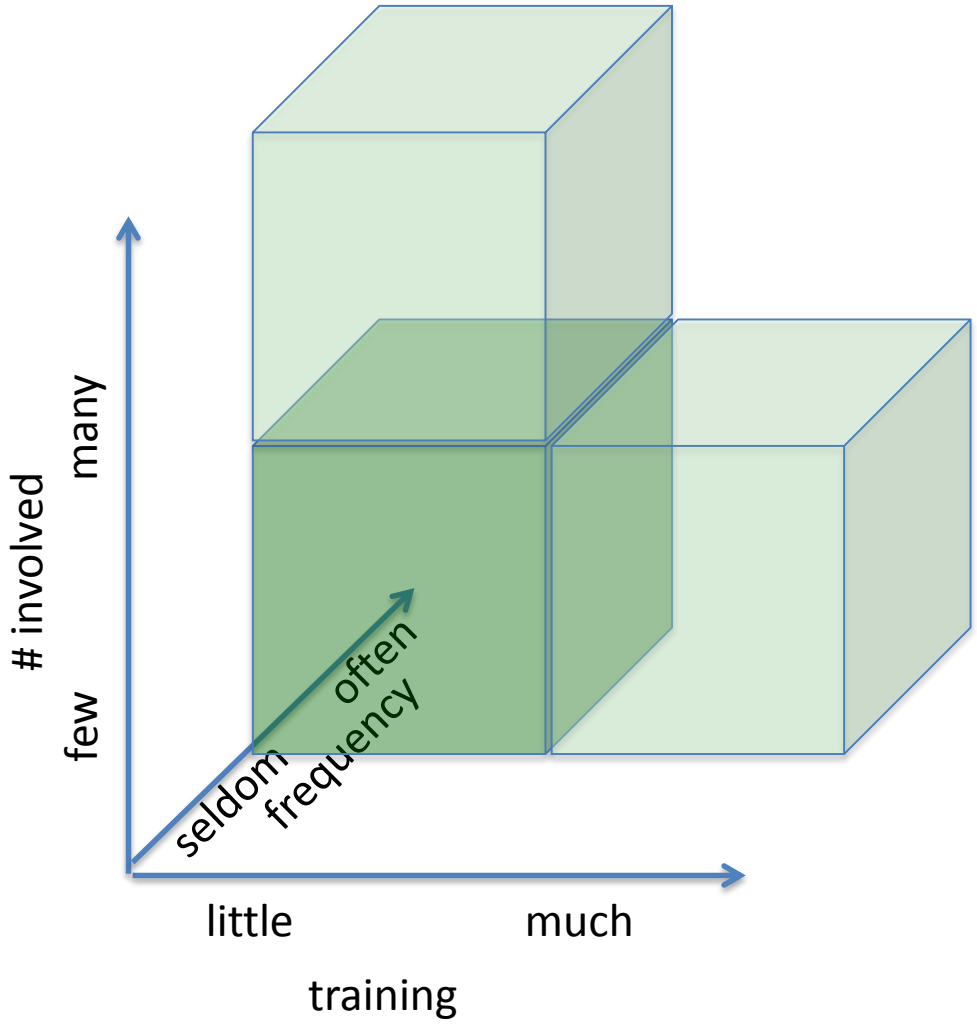
Austin Mast and Libby Ellwood

Dept. of Biological Science

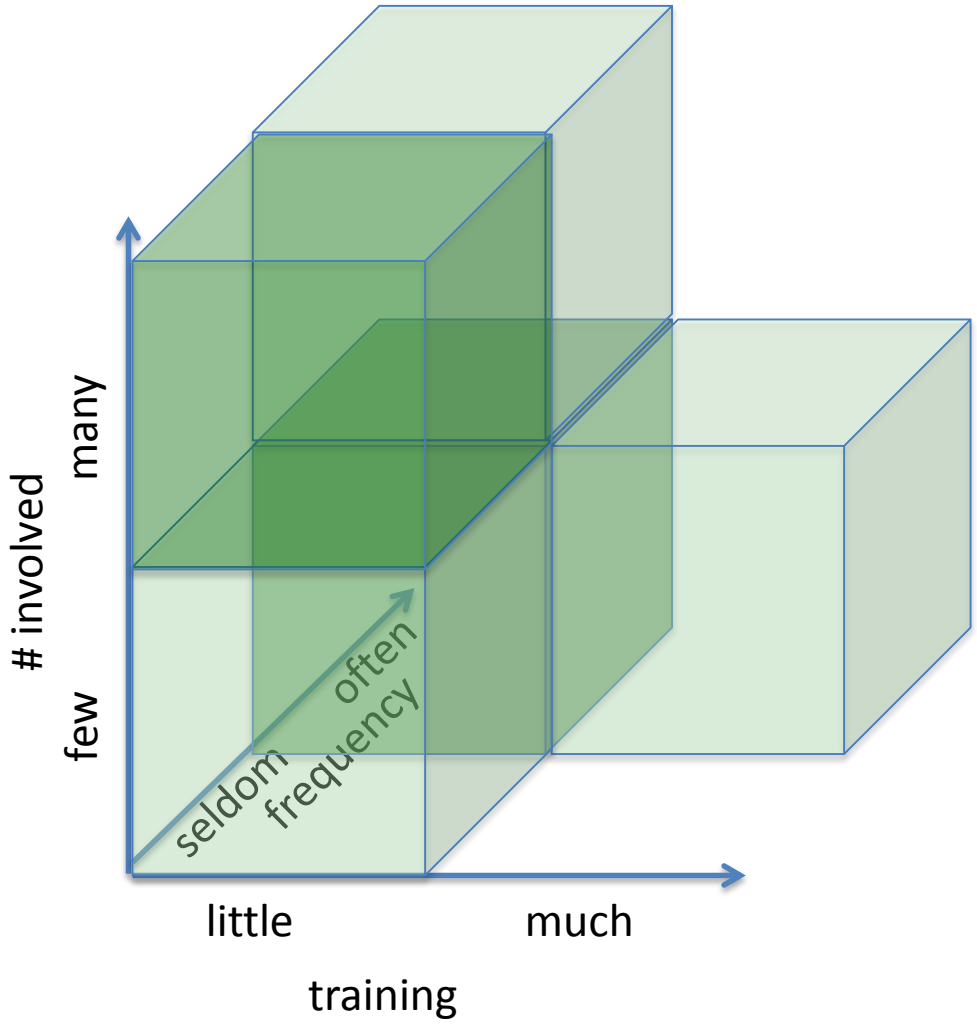
Florida State University

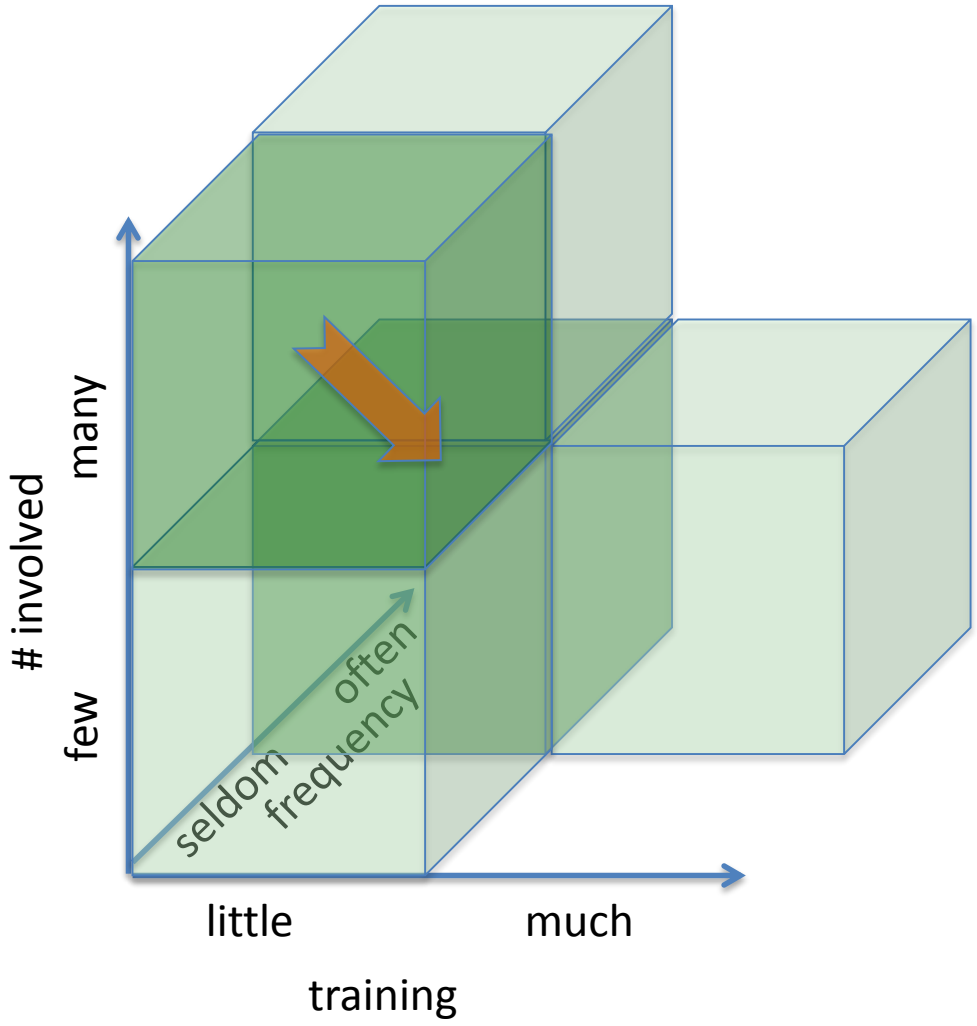
iDigBio

Integrated Digitized Biocollections



Traditional onsite volunteer program


involved
few
many
seldom
often
frequency
little
much
training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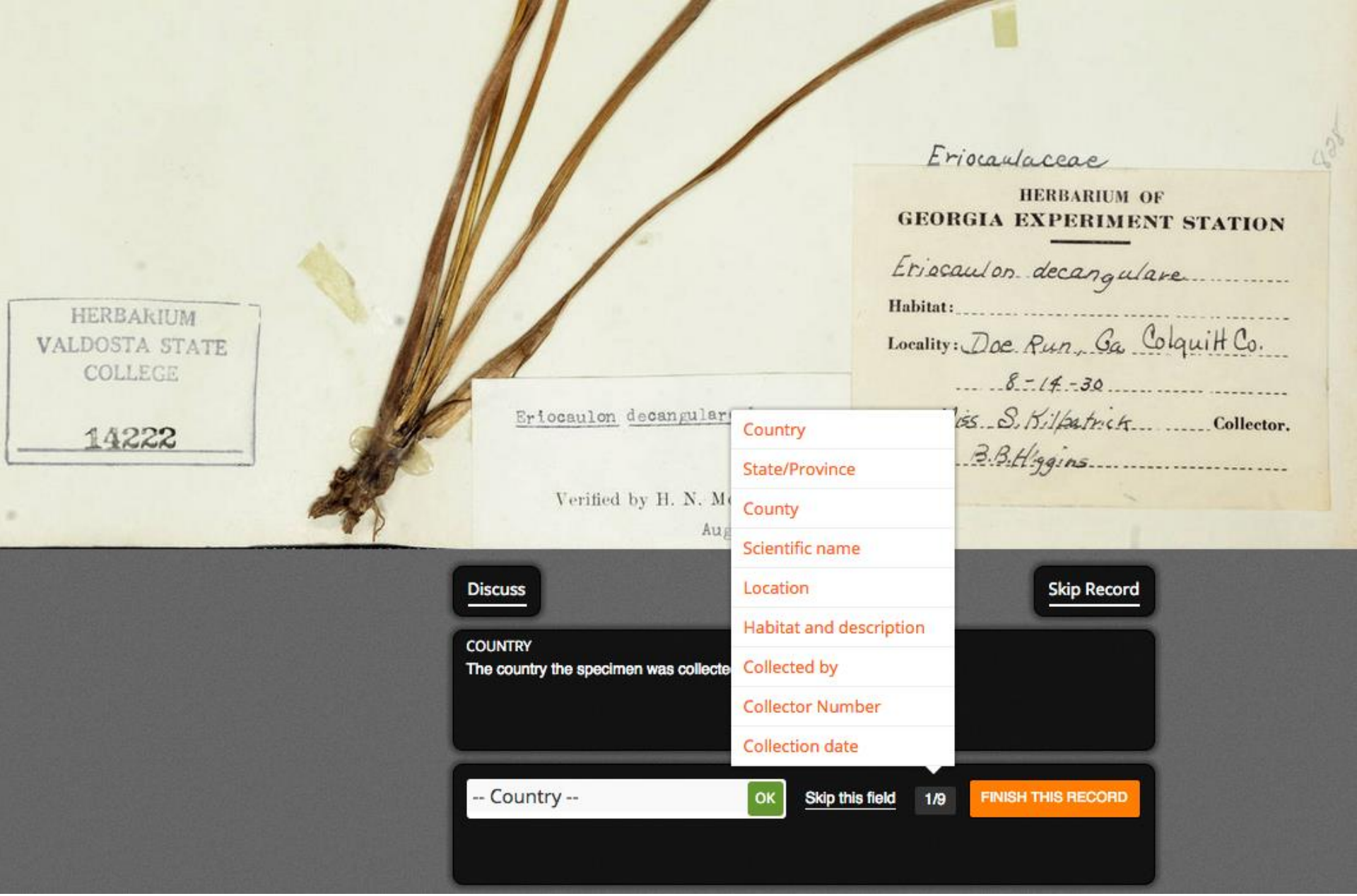
1. Digitization

http://www.notesfromnature.org/



http://www.notesfromnature.org/

2. Internet-scale engagement

Citizen Science Association

Citizen Science Association

A community of practice for the field of public participation in scientific research.

Overview Planning Membership *Conference*

Citizen Science 2015

February 11th-12th, San Jose, California, USA

Citizen Science 2015 was the inaugural conference of the Citizen Science Association (CSA). Over 600 people from 25 countries gathered for two days of building connections and exchanging ideas across a wide spectrum of disciplines and experiences.

Conference Information

CitSci2015 HOME
Conference Overview
-- Program and Presentations
-- Conference Flyer
-- Themes
Call for Proposals [NOW CLOSED]
Prepare for the Conference
-- Presenter Guidelines
-- Registration [NOW CLOSED]
-- AAAS Annual Meeting
-- Location and Lodging
Support the Conference

http://citizenscienceassociation.org/

PPSR models:

	Contributory	Collaborative	Co-Created
Define a question/issue	☐	☐	☑
Gather information	☐	☐	☑
Develop explanations	☐	☑	☑
Design data collection methods	☐	☑	☑
Collect samples	☑	☑	☑
Analyze samples	☑	☑	☑
Analyze data	☐	☑	☑
Interpret data/conclude	☐	☐	☑
Disseminate conclusions	☐	☐	☑
Discuss results/inquire further	☐	☐	☑

Source: Jennifer Lynn Shirk

Citizen Science
BSC 5936-04
Spring 2015

Time: Wed. 4–5pm; there will be an optional field trip on Saturday, Feb. 21.

Place: King Life Science Building, Room 4009

Instructors

Austin Mast
amast@bio.fsu.edu
850-645-1500
Office: King 4065
Office Hours: Monday 9–11, and by appointment.

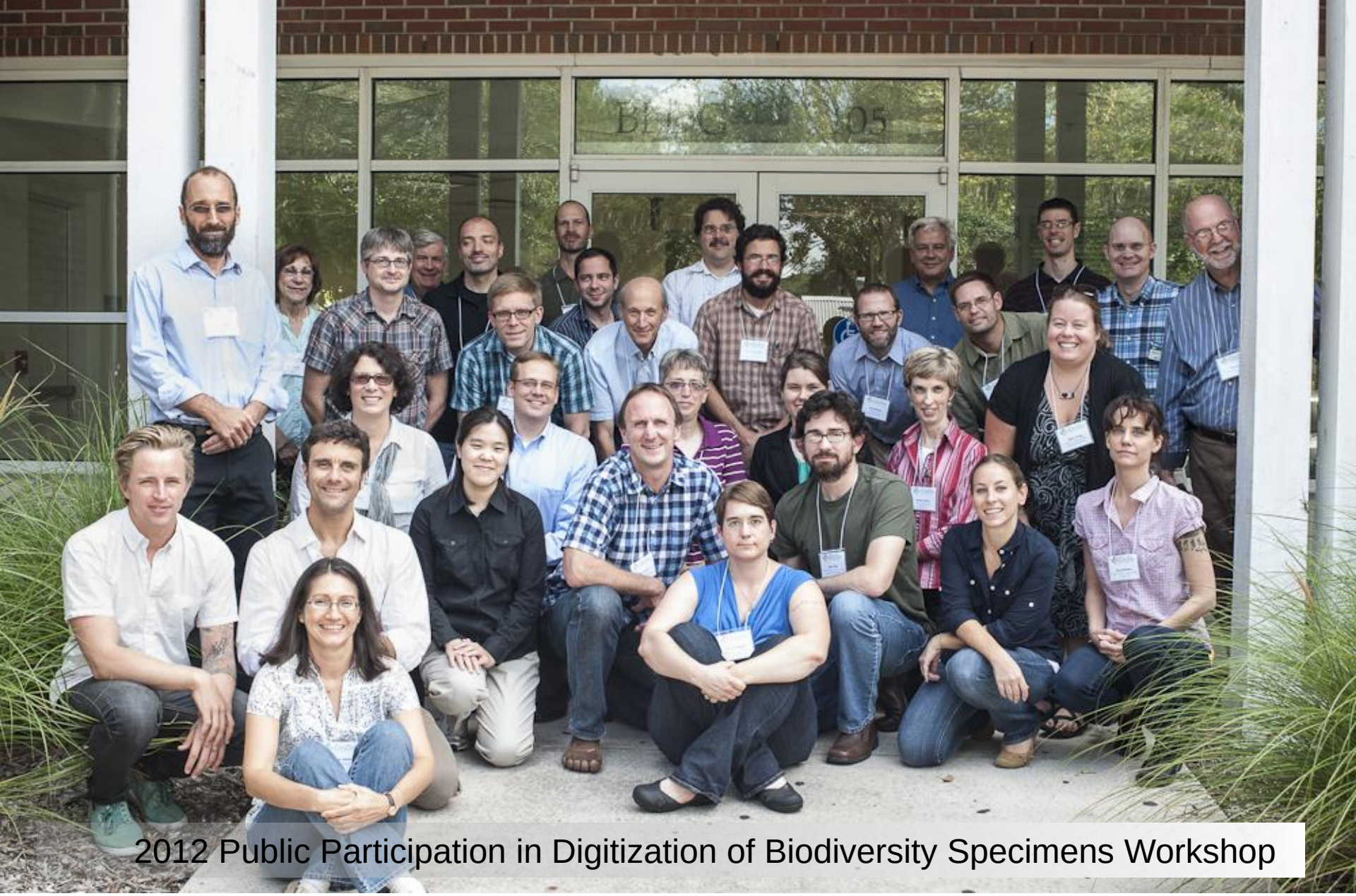
Libby Ellwood
eellwood@bio.fsu.edu
631-428-8118
Office: King 4006
Office Hours: Wednesday 10–12, and by appointment.

Websites

We will use a course Blackboard site at https://campus.fsu.edu for grades. Other materials will be posted on the course wiki page at https://www.idigbio.org/wiki/index.php/Citizen_Science/Course. We will use the Adobe Connect room at http://idigbio.adobeconnect.com/citizenscience-fsu/ for interactions between FSU and UF and for webinars.

Description

Citizen science involves the public in the generation of scientific knowledge. With a new professional society (http://citizenscienceassociation.org/) and an emerging journal, citizen science has reached a stage of



2012 Public Participation in Digitization of Biodiversity Specimens Workshop

https://www.idigbio.org/content/public-participation-digitization-biodiversity-specimens-workshop-report

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BioScience Advance Access published February 25, 2015

Accelerating the Digitization of Biodiversity Research Specimens through Online Public Participation

ELIZABETH R. ELLWOOD, BETTY A. DUNCKEL, PAUL FLEMONS, ROBERT GURALNICK, GIL NELSON, GREG NEWMAN, SARAH NEWMAN, DEBORAH PAUL, GREG RICCARDI, NELSON RIOS, KATJA C. SELTMANN, AND AUSTIN R. MAST

A goal of the biodiversity research community is to digitize the majority of the one billion specimens in US c... this ambitious goal requires increased collaboration and technological innovation and broader engagement beyo... and museums. Engaging the public in digitization promises to both serve the digitizing institutions and furthe... of biodiversity science. We discuss three broad areas accessible to public participants that will accelerate researc... transcription, georeferencing from locality descriptions, and specimen annotation from images. We illustrate ea... tools, present best practices and standards, and identify gaps in our knowledge and areas for improvement. The fie... digitization of biodiversity research specimens is in a growth phase with many emerging opportunities for scientist... as well as broader communication with complementary projects in other areas (e.g., the digital humanities).

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https://www.idigbio.org/content/citscribe-hackathon

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https://www.idigbio.org/content/sitch-stitch%E2%80%94-citstitch-hackathon

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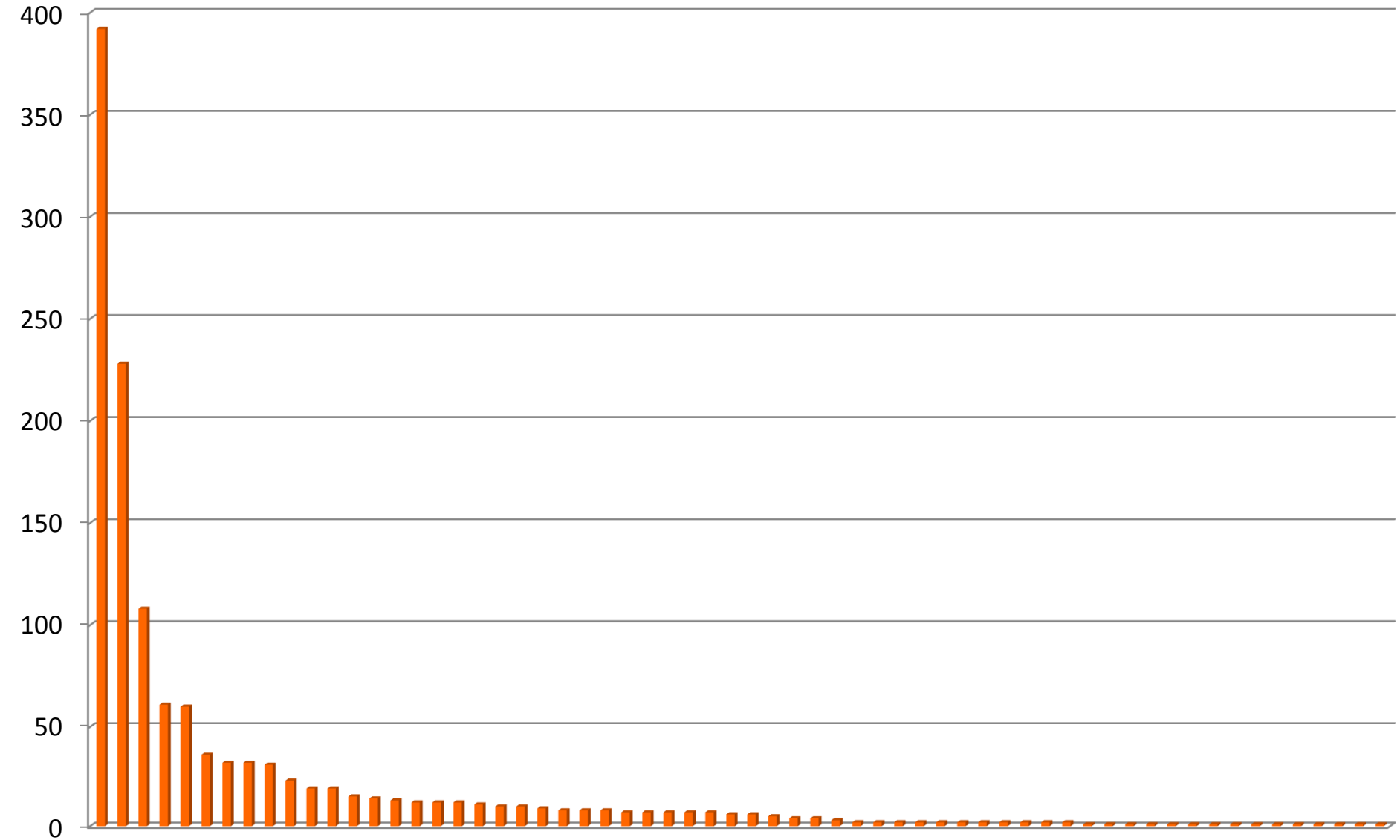
Number of Annotations by User in a Week in February, 2015



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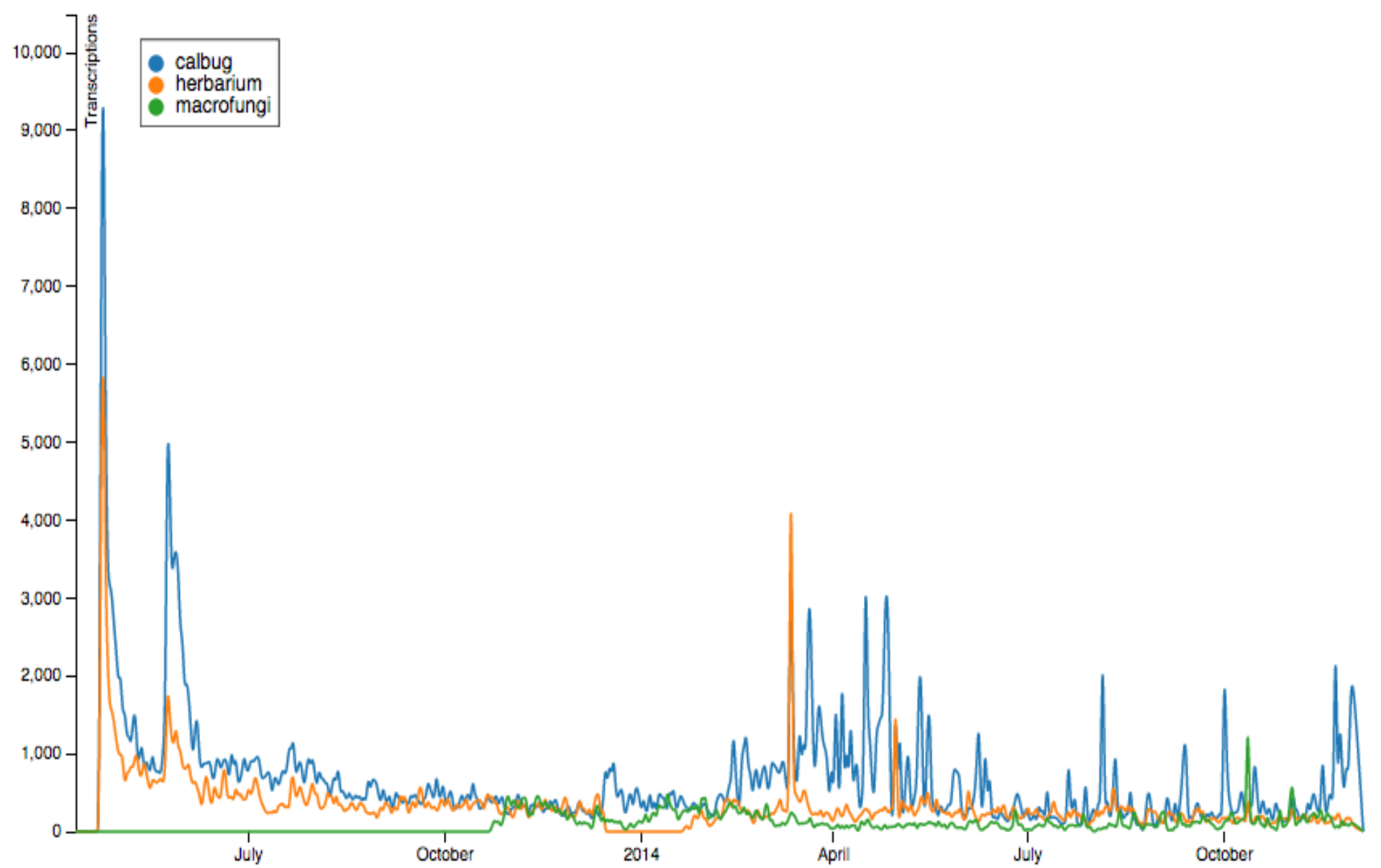

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all tech considered TECH, CULTURE AND CONNECTION

npr

behavior privacy & security social web innovation

science

Evolved Science: Crowds Can Catalog Bugs Faster

MARCH 11, 2014 4:00 PM ET

STAN JASTRZEBSKI

from 88.9 wfsu

Listen to the Story
All Things Considered
4 min 25 sec

+ Playlist
↓ Download
≡ Transcript

SHARE

http://www.npr.org/blogs/alltechconsidered/2014/03/11/289064040/evolved-science-crowdsourcing-makes-cataloging-bugs-faster

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https://www.idigbio.org/content/idig%E2%80%99dbio-fsu%E2%80%99s-herbarium-imaging-blitz-success

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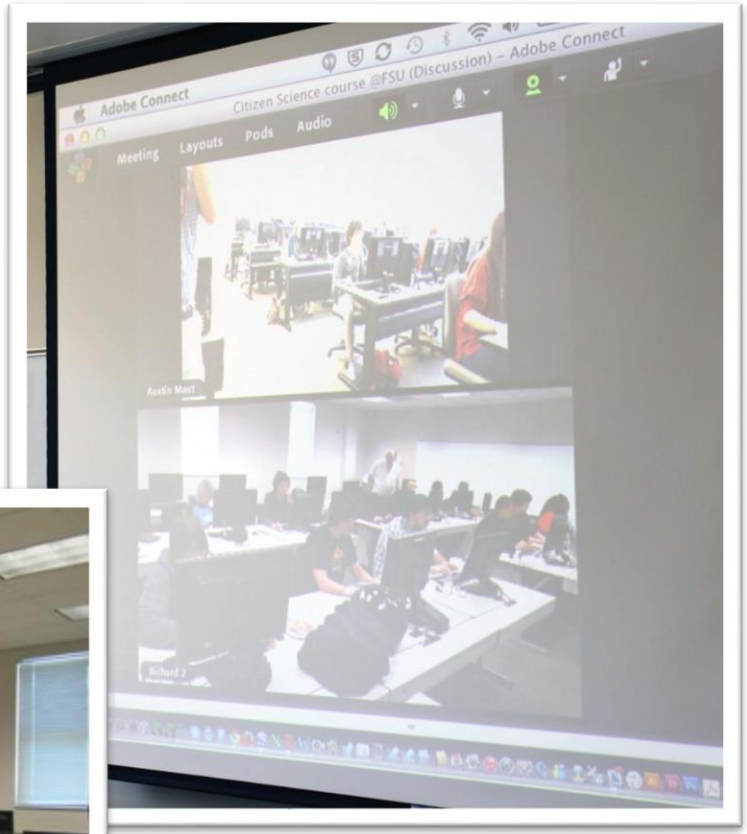

https://www.idigbio.org/content/simultaneous-transcription-blitzes-success

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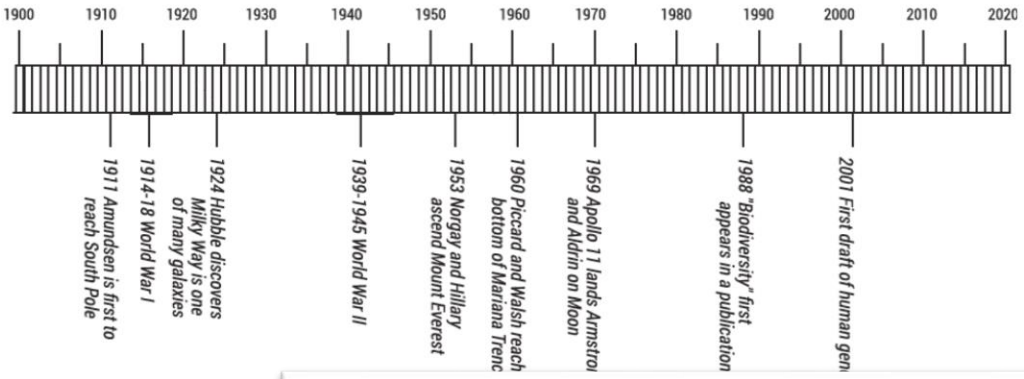
Your Name

TIMELINE TRACKER

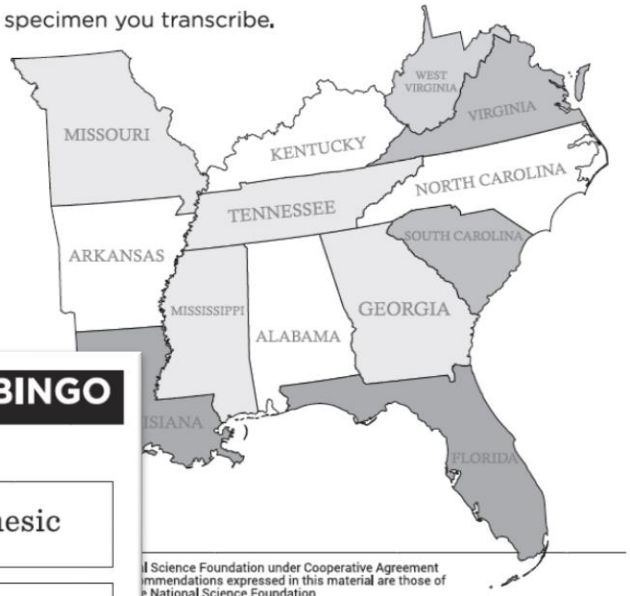
Mark the collection years for each specimen you transcribe.



iDigBio
This material i
findings, and c
of the National

GEO LOCATOR

cation for each specimen you transcribe.



l Science Foundation under Cooperative Agreement
mmendations expressed in this material are those of
e National Science Foundation.

Your Name

HABITAT BINGO

Mark the word as you see it in the specimens you transcribe.

sandy	swamp	creek	hammock	mesic
scrub	open	peaty	floodplain	woods
pond	lake		roadside	shaded
flatwoods	disturbed	wet	bog	river
ditch	forest	edge	loamy	dry

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https://www.idigbio.org/content/simultaneous-transcription-blitzes-success

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spark fsu

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Blazing a New Trail for Sustainability with Citizen Science

Arts & Sciences

Project Donor Roll

Millions of specimens await digitization.

Like 249 Tweet 19 <> embed ★ Remind me

$2,681

Raised of $2,000 goal

24

Supporters

Donations ended on
December 15, 2014

Recent Donors More »

Supporter	Pledged Amount
Florida Native Plant Society, Magnolia Chapter	$500
Gail Fishman	$25

http://spark.fsu.edu/Projects/121/Blazing-a-New-Trail-for-Sustainability-with-Citizen-Science

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Module 12: Organizing and Implementing a Public Participation Transcription Blitz

Task ID	Task Description	Explanations and Comments	Resources
T1	Identify expenses and funding source.	These might include snacks/drinks, artwork for event-branded items, event-branded items, and prizes for transcription games and/or raffle. Funds could include crowdfunding campaigns.	Crowdfunding sites (e.g., experiment.com).
T2	Identify specimens targeted for transcription.	Consideration might be made for how comp circumscriptio advertising ev example, in-st might be of gr local participa	
T3	Identify source of information for transcription.	These can inc physical spec images of the	
T4	Determine if specimens	For example, if the source of	Predigitization

https://www.wedigbio.org/

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Project:

Florida Plant Hotspot Digitization Blitz

Build a dataset for a biodiversity hotspot—help FSU's Godfrey Herbarium digitize its local plant specimens.

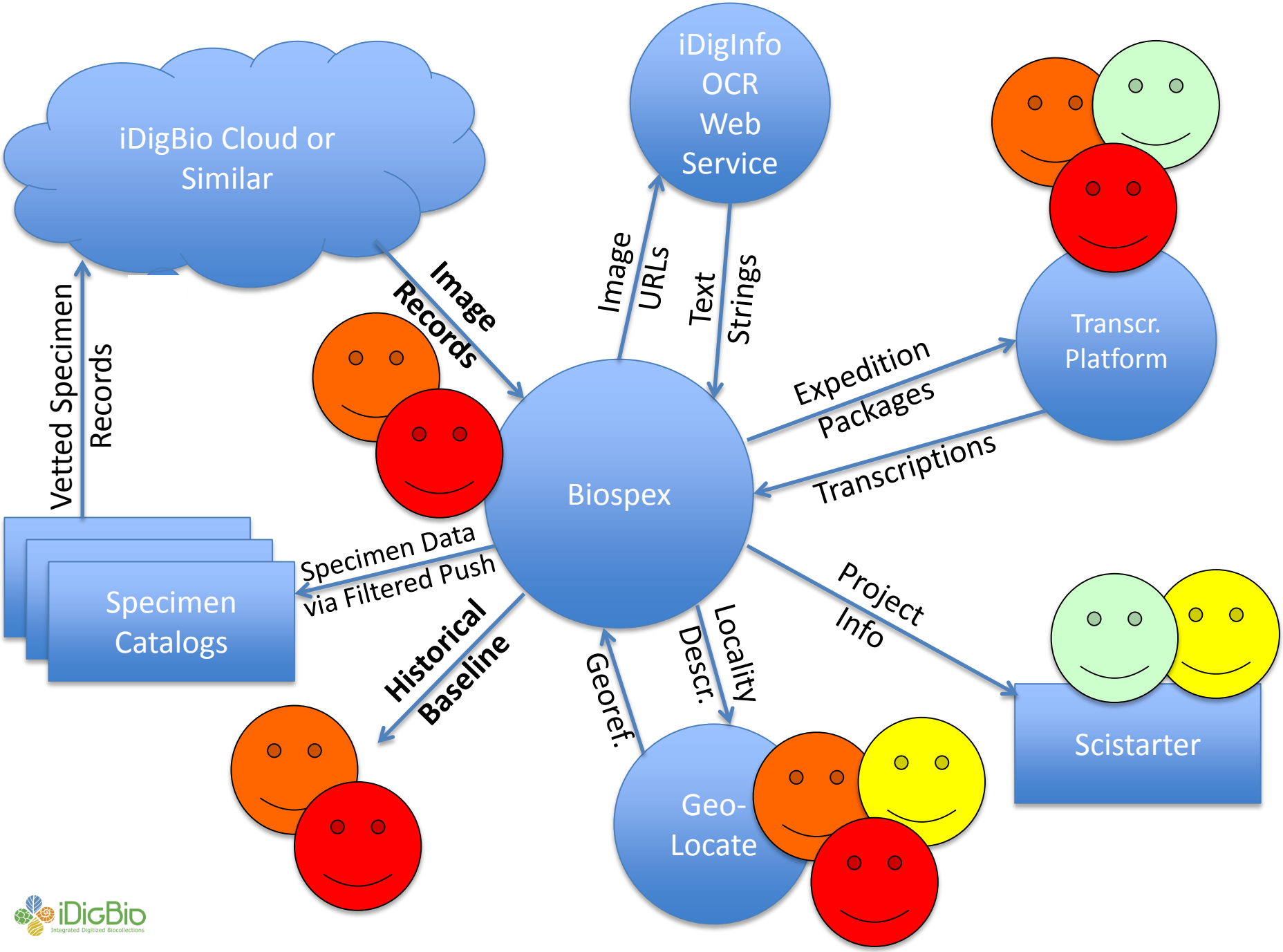
Add Data | Clone | Edit | Delete | Advertise

Project Url: Florida Plant Hotspot Digitization Blitz

Expeditions:

+ Create

Title	Description	Created	Subjects	Incomplete	Complete	Percent Complete	Options
Time-traveller #1	These pre-1900 specimens document the flora during Florida's first 55 years of statehood.	10/24/2014	800	Processing not been started.			
Apalachicola National Forest #1	These specimens are all from Florida's largest national forest at the heart of a continental biodiversity hotspot.	10/24/2014	800	Processing not been started.			
The collections of Robert K. Godfrey #1	These are the collections of Robert K. Godfrey, a prolific collector of the mid-1900s. The herbaria at both Florida State University and Tall Timbers Research Station are named for Godfrey, as are a number of Florida's plant species.	10/24/2014	800	Processing not been started.			


iDigBio Cloud or Similar
iDigInfo OCR Web Service
Image URLs
Text Strings
Image Records
Vetted Specimen Records
Biospex
Transcr. Platform
Expedition Packages
Transcriptions
Specimen Catalogs
Specimen Data via Filtered Push
Historical Baseline
Georef.
Descr. Locality
Project Info
Geo-Locate
Scistarter
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Many in the iDigBio, Notes from Nature, WeDigBio, and the FSU Robert K. Godfrey Herbarium communities.

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iDigBio Education & Outreach (E&O)

Bruce J. MacFadden
Co-PI & Director of Education and Outreach
Curator of Vertebrate Paleontology
Florida Museum of Natural History

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Cyber-enabled Graduate Seminars
Digitization, Broader Impacts, Citizen Science

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Women in Science and Engineering Science Spring Camp

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Broadening Representation

iDigBio Visiting Scholars program--Early career professional development

2012
Anna Monfils,
Central MI Univ.

2013
Corey Toler—Franklin,
Now UF Faculty in
Engineering

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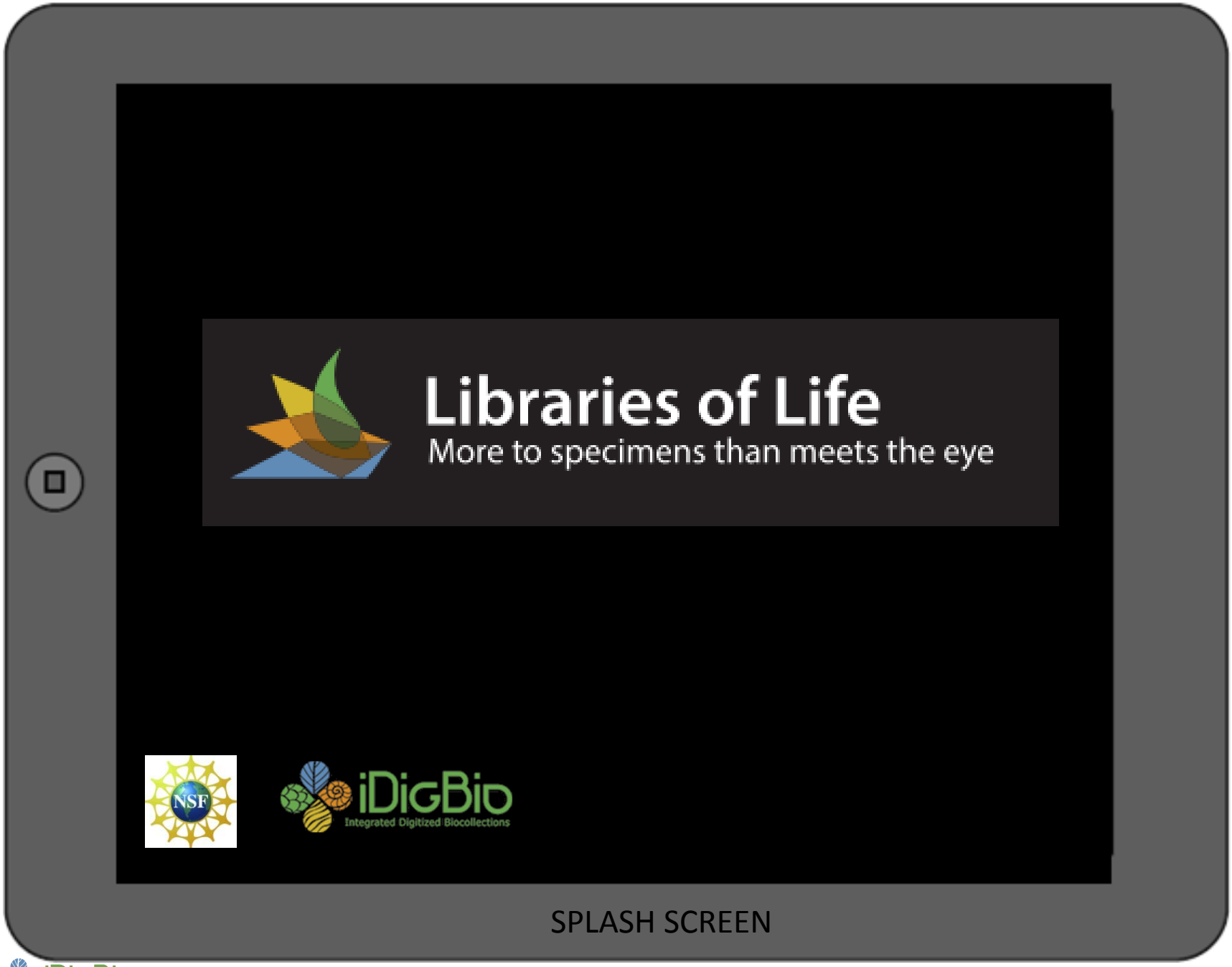

SPLASH SCREEN

Front and back of Target Card

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Libraries of Life

MYCOLOGY COLLECTIONS PORTAL

The Mycology Collections data Portal (MyCoPortal) is a user-friendly, web-based database that aids taxonomists, field biologists, ecologists, educators, and citizen scientists in the study of fungal diversity. The data are derived from a network of universities, botanical gardens, museums, and agencies that provide taxonomic, environmental, and specimen-based information. identification keys, all linked with a rich collection of digital imagery documenting fungal diversity of North America. http://mycoportal.org/portal/index.php

bring it to life

AR

- *Download the Junaio app onto your Apple or Android mobile device from www.junaio.com/download/*
- *Launch the app.*
- *SCAN the code to access AR channel.*
- *Hold your mobile device camera about 6 inches away from Flashcard.*
- *Click buttons to view content.*

Developed by the BIOTA3D Lab at BioKIC (Biodiversity Knowledge Integration Center) Arizona State University in collaboration with iDigBio and the ARPO (Augmented reality for public outreach) Working Group. Project Leads: Anne Basham and Austin Mast with graphic design by Jeremy Spinks. This material is based upon work supported by the National Science Foundation under Cooperative Agreement EF-111520. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not nnenecessarily nnecessarily reflect the views of the National Science Foundation.

NSF

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Libraries of Life
more to specimens than meets the eye...

Daisy Earthstar
Geastrum floriforme

augmented reality

bring this image to life: see reverse for details


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