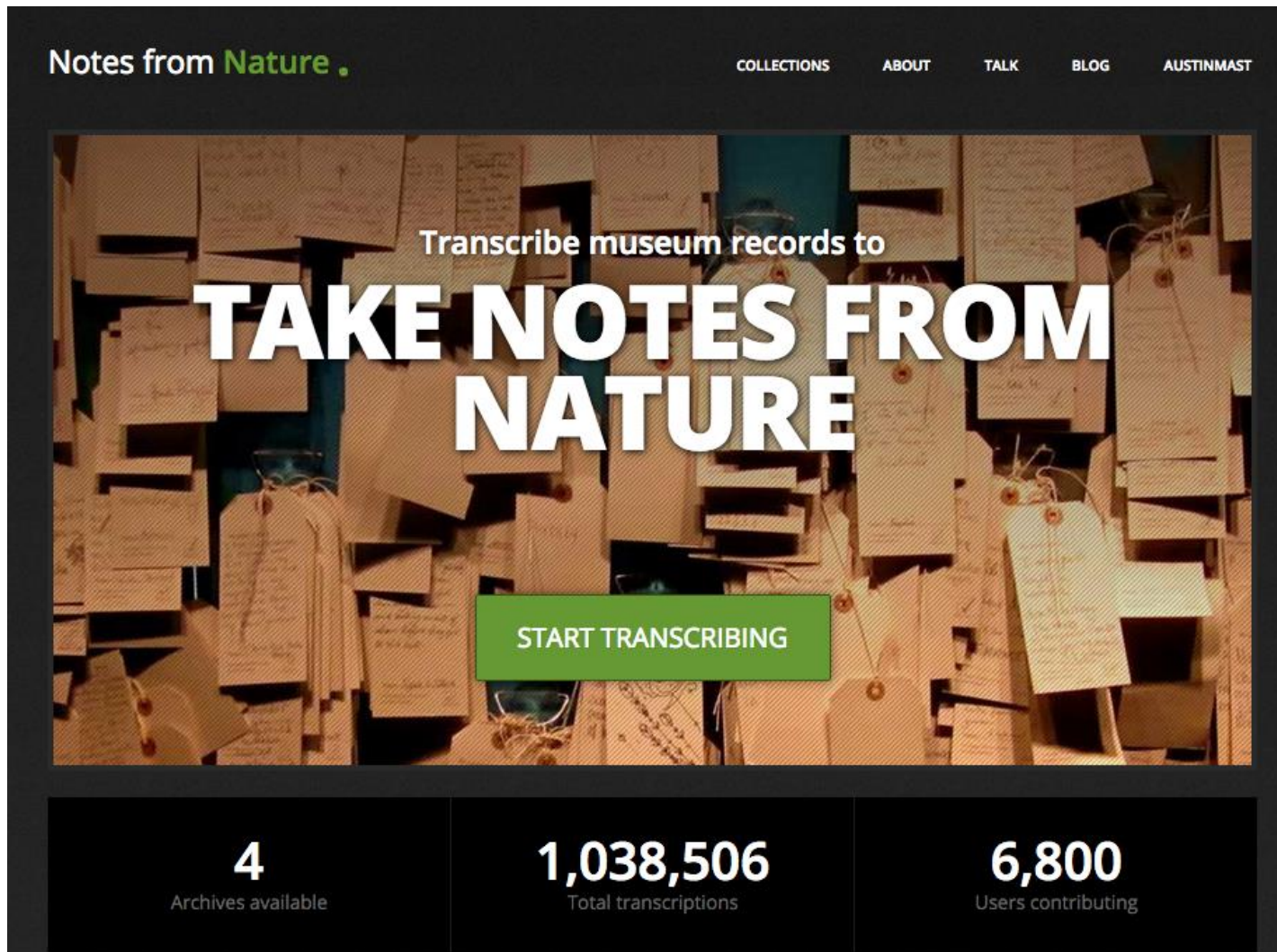


Engaging the Public in Digitization

AUSTIN MAST, Elizabeth Ellwood, Robert Bruhn, Jeremy
Spinks, Greg Riccardi
Florida State University

Public Participation in Digitization is Hitting its Stride



The screenshot shows the homepage of the 'Notes from Nature' website. At the top left, the text 'Notes from Nature' is displayed in white and green. To the right, a navigation menu includes 'COLLECTIONS', 'ABOUT', 'TALK', 'BLOG', and 'AUSTINMAST'. The main content area features a background image of numerous handwritten museum records on aged paper. Overlaid on this image is the text 'Transcribe museum records to' in white, followed by the large, bold title 'TAKE NOTES FROM NATURE' in white. Below the title is a green rectangular button with the text 'START TRANSCRIBING' in white. At the bottom of the page, three statistics are presented in white text on a dark background: '4 Archives available', '1,038,506 Total transcriptions', and '6,800 Users contributing'.

Notes from Nature .

COLLECTIONS ABOUT TALK BLOG AUSTINMAST

Transcribe museum records to

TAKE NOTES FROM NATURE

START TRANSCRIBING

4 Archives available	1,038,506 Total transcriptions	6,800 Users contributing
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Public Participation in Digitization Workshop



<https://www.idigbio.org/content/public-participation-digitization-biodiversity-specimens-workshop-report>; September 28–29, 2012

CITSCribe Hackathon



<https://www.idigbio.org/content/citscribe-hackathon>; Co-sponsored with Notes from Nature, December 16–20, 2013

CITStitch Hackathon



**CITSTITCH
HACKATHON**

<https://www.idigbio.org/content/sitch-stitch%E2%80%94citstitch-hackathon>; Co-sponsored with Notes from Nature, December 3–5, 2014

iDig'dBio@ FSU's R. K. Godfrey Herbarium



Robert K. Godfrey Herbarium
at Florida State University

<https://www.idigbio.org/content/idig%E2%80%99dbio-fsu%E2%80%99s-herbarium-imaging-blitz-success>; Sept. 13, 2014

Crowdfunding Digitization Blitzes



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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>; Dec 1–15, 2014

Global Digitization Blitz



In planning for Fall 2015

Biospex



BIOSPEX

The logo features the word "BIO" in dark blue, "SPEX" in dark blue, and a large green "X" at the end. Above and below the letters are several green rectangular segments arranged in a semi-circular arc, resembling a stylized sun or a path.

Lead Public Digitization Expeditions

Origin of Biospex

Public Participation Workshop Participants identified need for system that would

- lower barriers to creation and management of public participation projects,
- make data flow more easily among relevant platforms,
- build capacity for recruiting and engaging with public participants, and
- enable co-created citizen science projects.

Example Scenarios at Biospex.org

#1

A curator of plant specimens digitally images all 21,000 of her Florida specimens and runs optical character recognition (OCR) software on the images, then uses BIOSPEX to bundle the specimen images using the OCR text string into about 20 expeditions that each ignite public interest for their themes or research importance. Groupings could be made by state park of origin, decade of collection, likelihood of handwriting on the label (using an OCR quality parameter), rarity, or invasiveness.



#2



Descendants of a famous ornithologist are interested in reconstructing the paths of his field trips. They gather together 32,000 specimen records from 42 different museums by exporting files from a specimen portal, such as that at iDigBio. A large fraction of the specimens do not have latitude and longitude associated with them, but they do have locality information that can be used to assign latitude and longitude.

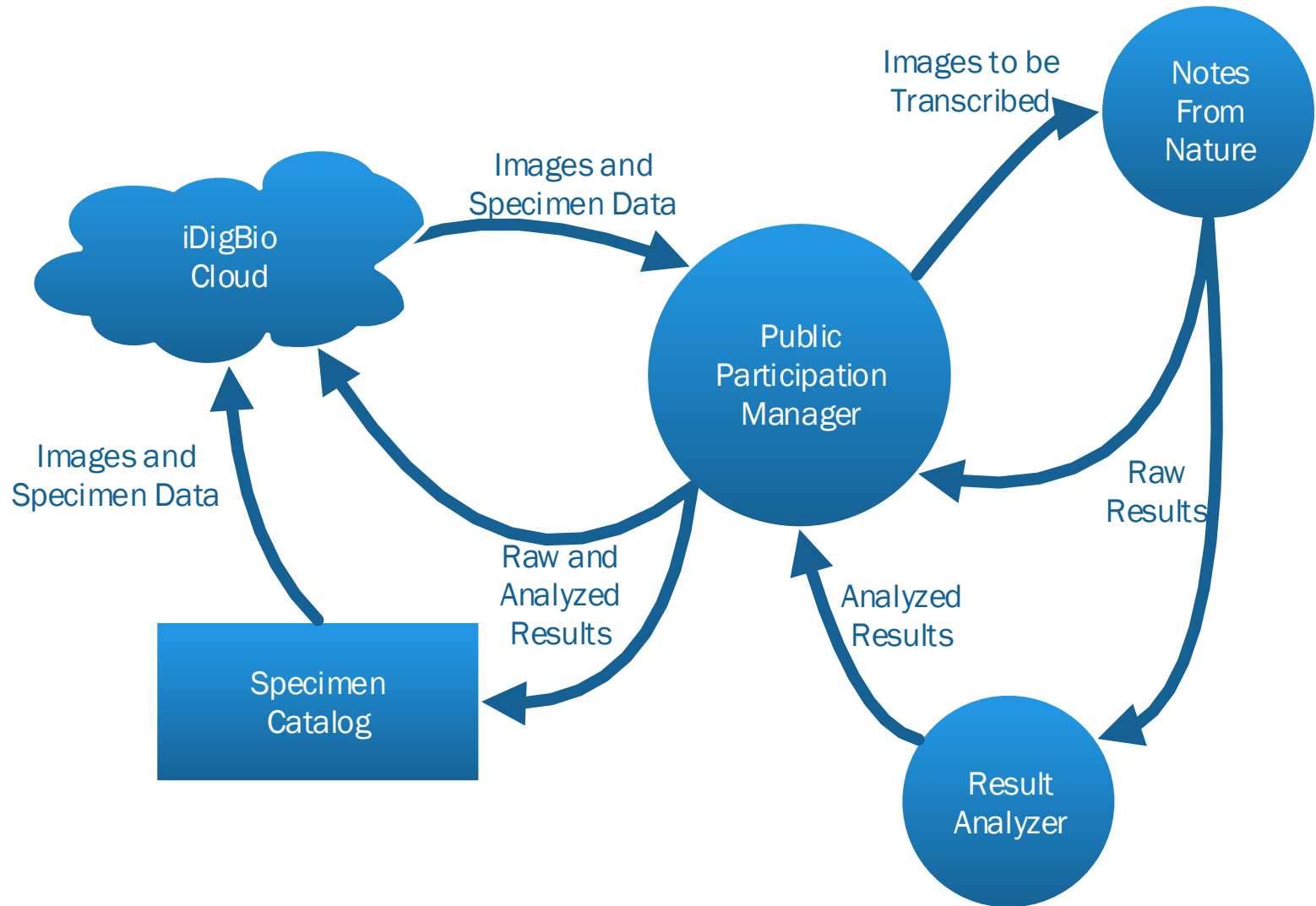
#3

An environmental group is concerned about the health of a local river. They gather together 12,000 specimen records of all types (fish, invertebrates, aquatic plants, etc.) that mention the river by name using the same protocol as the ornithologist's family.



NEXT

Information Flow as Originally Planned



An Example

GROUPS / HERBARIUM / FLORIDA PLANT HOTSPOT DIGITIZATION BLITZ

Project:

Florida Plant Hotspot Digitization Blitz

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

View site information

[Import](#)
[Explore](#)
[Clone](#)
[Edit](#)
[Delete](#)
[Advertise](#)

Project Url: [Florida Plant Hotspot Digitization Blitz](#)



Expeditions:

[+ Create](#)

Title	Description	Created	Subjects	Incomplete	Complete	Percent Complete	Options
FSU's Robert K. Godfrey Herbarium Expedition #1	FSU specimens from the Florida Panhandle's Biodiversity Hotspot!	01/26/2015	107	Processing not been started.			View Clone Edit Delete

An Example

BIOSPEX BETA Groups Projects biospex@gmail.com Logout Help

Geographic Scope	<input type="text" value="Florida, U.S.A."/>
Taxonomic Scope	<input type="text" value="Seed Plants"/>
Temporal Scope	<input type="text" value="1860–present"/>
Keywords	<input type="text" value="Biodiversity Hotspot, East Gulf Coastal Plain, Florida, Florida State University, Robert K. Godfrey Herbarium, Seed Plants"/>
Hashtags	<input type="text" value="#FLDigBlitz"/>
Activities	<input type="text" value="Transcription"/>
Language Skills Required	<input type="text" value="English and perhaps occasionally Spanish"/>
Workflow Actor	<input type="text" value="Notes From Nature"/>
Logo	<input type="button" value="Choose File"/> No file chosen Max. 300 x 200 
Banner	<input type="button" value="Choose File"/> No file chosen Min. 1200 x 300 

An Example

Expedition:

FSU's Robert K. Godfrey Herbarium Expedition #1

FSU specimens from the Florida Panhandle's Biodiversity Hotspot!

Keywords: Florida Panhandle, Plants, Biodiversity Hotspot, Apalachicola National Forest

- ➕ Import
- ➔ Clone
- ⚙ Edit
- 🗑 Delete

▶ Process

Subjects assigned to expedition: 107

Subjects				
View 1 - 97 of 97				
	Assigned	Id	AccessURI	Ocr
	Any	x	x	x
1	<input type="checkbox"/>	Yes	urn:uuid:b065a6c6-9974	http://www.morphbank.net?id=516603&HERBARIUM I 9 3 3 4 0 FLORIDA STATE UNIVERSITY U) a: .c 2 m a. T: b C o O h 2 o 0 ¥ < D
2	<input type="checkbox"/>	Yes	urn:uuid:4a7d4a0a-870	http://www.morphbank.net?id=516621&FLORM A "STA
3	<input type="checkbox"/>	Yes	urn:uuid:3489abc0-7f83	http://www.morphbank.net?id=516633&(D d) .C O I...
4	<input type="checkbox"/>	Yes	urn:uuid:699201df-e574	http://www.morphbank.net?id=516549&cn a: .C .2 cc
5	<input type="checkbox"/>	Yes	urn:uuid:55de9c95-f964	http://www.morphbank.net?id=516564&alga: HUM 17
6	<input type="checkbox"/>	Yes	urn:uuid:cfb54d90-f07f	http://www.morphbank.net?id=516567&R. K. Godfrey
7	<input type="checkbox"/>	Yes	urn:uuid:a3faa19f-5222	http://www.morphbank.net?id=516648&m a: .C .9. as
8	<input type="checkbox"/>	Yes	urn:uuid:e948ae10-bae	http://www.morphbank.net?id=516651&HERBARIUM S



Citizen Science Course

Citizen Science
BSC 5936-04
Spring 2015

Time: Wed. 4-5pm

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 2:30-3:30, and by appointment.

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 explosive growth with new opportunities for citizen scientists appearing weekly. This course is open to graduate students and other interested individuals (including faculty) from any discipline but might be of greatest interest to those in the sciences and education. Topics will include, but are not limited to, project typologies, best practices, relevant resources, project evaluation, user motivations, broadening participant diversity, and data quality. Both onsite and online engagement will be discussed.

Send amast@bio.fsu.edu a request for syllabus



Many in the iDigBio community, including Libby Ellwood, Robert Bruhn, Gil Nelson, Deb Paul, and Greg Riccardi (FSU), Bruce MacFadden and Betty Dunckel (UF), and the PP working group and PP workshop participants have also contributed to the development of the iDigBio vision for public participation in digitization of biodiversity specimens.

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