COVER

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Project Title:	Digitization HUB: A Collections Digitization Framework for the 21st Century
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ACCOMPLISHMENTS – WHAT WAS DONE? WHAT WAS LEARNED?

For NSF purposes, the PI should provide accomplishments in the context of the NSF merit review criteria of intellectual merit and broader impacts, and program specific review criteria specified in the solicitation. Please include any transformative outcomes or unanticipated discoveries as part of the Accomplishment section. If there is nothing significant to report during this reporting period, please enter "Nothing to Report" if applicable.

What are the major goals of the project?

List the major goals of the project as stated in the approved application or as approved by the agency. If the application lists milestones/target dates for important activities or phases of the project, identify these dates and show actual completion dates or the percentage of completion.
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This project will oversee the development of a community implementation plan to accomplish digitization of the existing biodiversity collections in the U.S., coordinate the NSF-funded digitization of biological collections efforts, foster partnerships, training, and innovations, facilitate workflows, serve as a central site for integrating data and techniques, monitor data online in a timely manner and regular schedule, establish cohesion and interconnectivity among digitization projects funded by this program or other existing and future digitization activities, and enable ongoing communication between partners in the digitization activity. In addition to forming the coordinating scientific team, the organization will be responsible for performing a variety of functions in order to unite the collections community, oversee implementation of standards and best practices for the collections, help to identify gaps and priorities for digitization efforts, plan for the long-term sustainability of the national resource, facilitate communication and standards for training, facilitate identification and adoption of instrumentation and informatics tools that improve efficiency and scalability of digitization and assure that results are disseminated to the scientific community utilizing collections, the national collections community, and other similar efforts internationally. In order to accomplish many of these goals, the national resource will organize workshops and smaller working groups focused on pertinent topics.

The national resource will facilitate implementation of digitization and data interoperability as well as enable links with existing digitization projects and other national and international entities that promote biological research based in collections, collections standards, and training necessary for the digitization through thematic networks. The national resource will need to establish a community-wide plan for storage, maintenance, access, and long-term preservation of digital data through partnerships with appropriate cyberinfrastructure resources. As part of its mission to enable digitization of the U.S. existing biological collections, the awardee will collaborate with Florida State University on the integration of the TCNs, digital archive of images, related digital data and cyberinfrastructure.

The national resource will promote and coordinate outreach activities for research, education, and downstream user communities in academia, government, non-government organizations, and private organizations, and facilitate novel and traditional uses of collections data. Documenting the use of digitized collections data will be an important function of the organization, which should maintain a living resource that tracks research outcomes, outreach activities, and innovative discoveries that result from this support. Given the available resources of the national resource a plan will be developed that specifies: the outreach tasks, intended learning outcomes, geographic distribution of impact, and program evaluation processes.

What was accomplished under these goals (you must provide information for at least one of the 4 categories below)?

For this reporting period describe: 1) major activities; 2) specific objectives; 3) significant results, including major findings, developments, or conclusions (both positive and negative); and 4) key outcomes or other achievements. Include a discussion of stated goals not met.

Major Activities:

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7/1/2012: iDigBio launched a technology demonstrator portal for the specimen and image database, including search technology and geovisualization functions. This technology preview contains sample datasets provided by Morphbank and the Florida Museum of Natural History, some of which is research quality specimen data. These datasets allow iDigBio to share its development efforts with the community for feedback and guidance.

7/11-12/2012: iDigBio sponsored a symposium, organized by Austin Mast and Pam Soltis, at the annual meeting of the Botanical Society of America and its collaborating professional societies. The symposium (7/11) provided an overview of digitization applications and methods and was followed by a workshop (7/12) that provided in-depth views and training in various aspects of digitization. The symposium was attended by more than 200 people (standing-room only) and the workshop was attended by nearly 80 people.

8/15-16/2012: The Southwest Collections of Arthropods Network (SCAN) TCN kickoff meeting was held at Arizona State University. During this meeting, Neil Cobb gave an overview of the SCAN project goals, including the main long term goals of providing e-identifications and a coherent georeferenced dataset. Following Neil were presentations by the teams from Filtered Push (Paul Morris), Specify (Rod Spears) and Symbiota (Ed Gilbert) describing their work and giving live demonstrations. Gil Nelson of iDigBio provided an overview of iDigBio, including iDigBio coordination with SCAN, and addressed iDigBio's data model, the development of authority files, and plans for data ingestion.

8/2012: iDigBio engaged as a collaborator on the following ABI proposals:

- “CIF21:DIBBS Corral – The Foundational National Resource for Open Science Data” (Dan Stanzione as PI)
- “Collaborative Research: ABI Development: Breaking the Bottlenecks of Digitization: A Suite of Microservices and Webservices for Object-to-Image-to-Data Transformation” (Amanda K. Neill as PI)

- "ABI Development: GN2 - Building names services into the cyberinfrastructure for big biology" (Nico Franz as PI)
- "BioFinder: Harnessing the Power of Citizen Science" (Hank Bart as PI)

9/6 2012: The New England Vascular Plant (NEVP) TCN held a kickoff meeting with a meeting at Yale Peabody Museum of Natural History. Patrick Sweeney offered an overview of the project, highlighting two digitization innovations for U.S. collections: (1) the development of high throughput rapid digitization apparatuses that reflect the type of industrial automation being pursued at the Paris Herbarium, and (2) a novel pre-capture workflow that enhances pre-digitization curation. Later in the day, attendees observed demonstrations of the NEVP website, Symbiota portal, and internal project management website. The demonstrations were followed by a rich discussion of TCN publicity, communications, and outreach strategies. iDigBio was represented at the meeting by Gil Nelson, while iDigBio co-PI Pam Soltis and senior personnel Austin Mast collaborated on a remote presentation that provided an introduction and overview of iDigBio.

10/23-24/ 2012: iDigBio held its 2nd annual Summit in Gainesville, FL. The Summit promoted clarification of objectives, communication of progress towards achieving objectives, identification and discussion of challenges and opportunities, and collaboration among stakeholders. Day 1 focused on presentations from iDigBio, freshmen TCNs, sophomore TCNs, and the Working Groups to communicate details on ongoing and planned activities, including brief reports on workshops held during the past year. Day 1 concluded with a range of ad hoc discussion groups targeted to specific topics of the participants' choosing. Day 2 focused on the exploration of key challenge topics through several guided discussion groups, where each group discussed a particular challenge area in an effort to identify and prioritize key stakeholder needs.

11/2012: The iDigBio PIs, Project Manager, Biodiversity Informatics Manager, and other staff met to discuss the NIBA Community Implementation Plan. iDigBio then prepared and sent joint comments on the NIBA Implementation Plan.

2/12-15/2013: The iDigBio Augmenting OCR (AOCR) Working Group participated in four sessions at iConference 2013 in Ft. Worth, TX. The goal was to introduce the Information Science community to the natural history museum digitization initiatives and iDigBio's technical challenges. The AOCR Working Group sought to collaborate with Information Science community and benefit from their digitization expertise and research knowledge base. iDigBio's participation included 6 talks, a poster, a short paper, a panel workshop, and an alternative event.

2/25/2013: New versions of the iDigBio website and specimen portal were released to the community. The website was redesigned to focus on making it easier to understand and to use, and to be more approachable to a lay visitor. The Portal and APIs were redesigned to focus on correcting shortcomings identified in the technology demonstrator and in completing the foundation for a system that will serve the community for years to come, including user interface improvements, improved stability and flexibility of the API, and due diligence to create requirements for data providers that are minimal but sufficient to ensure the smooth operation of the system.

3/19-22/2013: The Georeferencing Working Group (GWG) conducted a Materials Development Workshop. The goal was to create training materials on Georeferencing that can be easily disseminated and consumed via the Internet. GWG Materials to be developed first include topics typically covered on day 1 or day 2 of a georeferencing workshop but also include georeferencing workflows and cleaning, enhancing and analyzing data using tools like GEOLocate, Maxent, R, Open Refine and Google Fusion Tables. Participants in this materials development are John Wieczorek, Carol Spencer, Nelson Rios, David Bloom, Deborah Paul, and Kevin Love.

3/22/2013: iDigBio's External Advisory Board (EAB) members met with the iDigBio PIs and project staff via an Adobe Connect virtual conference. Presentations were given by iDigBio personnel to outline iDigBio's activities, progress, challenges, and opportunities faced by iDigBio during the past year. Following the presentations, an open discussion period allowed iDigBio to respond to questions, comments, and recommendations from the EAB members. In general, the EAB

members were quite pleased with iDigBio's progress. The EAB was impressed with the quantity of work that iDigBio has produced while meeting its goals, staying on track, and with only a few items on the timeline being delayed.

3/2013: Joanna McCaffrey published a webpage with links to the newly issued NIBA Implementation Plan to promote education NIBA, ADBC, and the national digitization effort.

4/4-5/2013: NSF conducted a site review at iDigBio, in which a large number of iDigBio staff participated. During the site visit, iDigBio communicated its progress during first its 2 years of operation and identified challenges and opportunities foreseen for the coming years. The NSF panel acknowledged the significant progress made by iDigBio, but identified several areas where iDigBio can improve over the next few years.

5/6-7/2013: iDigBio held its first annual retreat for iDigBio personnel. Through a variety of indoor and outdoor activities, the retreat provided an opportunity for iDigBio to enhance its teambuilding. In addition, the retreat provided an open forum for the entire team to review iDigBio's progress and help shape iDigBio's plans for the future.

Specific Objectives:

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9/2012: Gil Nelson, in conjunction with Joanna McCaffrey, developed an image format document to guide our image ingestion and to provide collaborators with guidelines and recommendations for image acquisition, processing, and archiving.

10/2012: iDigBio's mission requires that it be able to aggregate and distribute digital images of biological specimens, records, and other objects associated with specimens (e.g., labels and notes) generated by TCNs and other bio- and paleo-collections hosting institutions. As a result, the iDigBio MISC Working Group published a living document that provides current iDigBio policy as well as recommendations for acquiring, processing, archiving, and distributing still, two-dimensional digital images. We iDigBio recognizes the importance of other image types, including three-dimensional images, and will expand this current policy through time as demand dictates.

10/2012: The purpose of the of iDigBio website and e-newsletter is to facilitate the dissemination of information and updates regarding the implementation of iDigBio's NSF grant, and to inform the broader community about progress, opportunities and obstacles relevant to resource digitization related to natural history museums. The iDigBio website and e-newsletter serves a broad readership including natural history museum curators, collections managers, technical specialists, volunteers, citizen scientists and the general public. As a result, iDigBio published an Editorial Policy for Original Content and Previously-Published Content to provide guidelines for submissions.

10/2012: iDigBio created a poster that describes iDigBio, TCNs, and ADBC. The intent is for collaborators to display these posters in their institutions to continue generating interest and participation in iDigBio activities.

11/2012: Jeremy Spinks created 2 posters that describe the work of Gil Nelson and Deborah Paul who work for iDigBio and iDigInfo. The intent of the poster is to inform the students, staff, public and colleagues that visit the College of Communication and Information at FSU about the work of iDigBio and highlight our efforts to find and share effective digitization strategies.

11/2012: As part of its role as national resource, iDigBio is often asked to comment on grant proposals to various funding agencies. As a result, iDigBio published a living document that provides guidance on topics related to collaboration with iDigBio, interaction with the iDigBio Portal, and commitment of services by iDigBio for grant proposals. The document was prepared by David Jennings and Joanna McCaffrey, and was reviewed and approved by the project PIs.

Fall 2012: Casey MacLaughlin, Deborah Paul, Guillaume Jimenez and Kevin Love are collaborating on a white paper is in progress to address community questions about how to purchase long-term storage for data/images.

1/2013: The MISC Working Group released a Phase I report that includes an introductory statement followed by definitions of several sets of data elements that iDigBio might reasonably be called upon to ingest. The goal of the document is to provide conceptualizations that will guide iDigBio's data ingestion. The document is currently out for community comment and is being revised.

1/2013: The iDigBio ACIS team, including Joanna McCaffrey, developed and published a Terms of Use policy for its website, the specimen data portal, digital ingestion appliances, or any of the data or information, products, or services offered. The policy was reviewed and approved by the iDigBio principal investigators as well as the legal department from the University of Florida.

1/2013: The iDigBio ACIS team, including Joanna McCaffrey, developed and published a Service Level Agreement (SLA) to define the terms of service for the specimen data portal, digital ingestion applications, and data, information, products, and services that are offered by iDigBio. The policy was reviewed and approved by the iDigBio principal investigators as well as the legal department from the University of Florida.

2/2013: Joanna McCaffrey prepared and released, with input from the entire iDigBio team, a GUID Guide whose aim was giving the data provider enough explanation and context to understand GUIDs and how to implement them with data sets they provide to iDigBio. The guide is currently being refined based on feedback from the collections community.

3/2013: iDigBio project manager David Jennings, with input from Joanna McCaffrey, the principal investigators and other iDigBio team members, is working to update iDigBio's Implementation Plan taking into account learning from its first two years of operations and input from the community, NSF, and advisory boards. The goal is to improve the usability of the document for all iDigBio personnel.

4/2013: The AOCR Working Group is beginning collaborations with TCNS to coordinate efforts on development of OCR/NLP solutions to allow museums and herbaria to at least partially automate the creation of data records from images of their specimens.

Significant results:

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7/2012: iDigBio announced the publication of "Five Task Clusters that Enable Efficient and Effective Digitization of Biological Collections" in ZooKeys 209:19-45 (2012) Special Issue by iDigBio staff members Gil Nelson, Deborah Paul, Greg Riccardi, & Austin Mast. This article is one of 19 papers in a special issue of ZooKeys entitled "No specimen left behind: mass digitization of natural history collections". Included are articles by investigators at three TCNs.

9/2012: Completed a deliverable from the iDigBio IT Standards Workshop to define and prioritize scope items for the Georeferencing Working Group (GWG) to go forward in implementing workshops and materials development.

9/2012: Kevin Love initiated collaboration with Alan Rout from UF's Open System Group to establish permanent backup and archive services for iDigBio.

9/2012: Joanna McCaffrey and Reed Beaman began developing requirements for the specimen portal user interface.

9/11/2012: First workflow working group (Flat Sheets and Packets) completed its work, with workflow task lists posted to the iDigBio documentation page.

Fall 2012: Deb Paul worked on 2 talks: one about Specimen Identifiers once they are shared outside a database and one Update on the iDigBio HUB for presentations at the Entomological Society of America (ESA) and Entomological Collections Network (ECN) Conference in Nov 2012.

10/2012: The Augmenting OCR (AOCR) Working Group proposal for a half-day workshop at the iSchools Conference 2013 was accepted. The theme is Scholarship in Action: data - innovation - wisdom, which fits with the goals of the ADBC and iDigBio. The workshop format is a 6-person panel designed to introduce the iSchools community to the digitization efforts and challenges of our various projects (and how OCR and OCR output fit in) followed by break out groups to gather input (wisdom), foster discussion and initiate collaboration between the iSchools community and our natural history collections projects. Panel members are: Deborah Paul, Jason Best (BRIT), Edward Gilbert (Symbiota), Bryan Heidorn (Univ of AZ), Amanda Neill (BRIT), William Ulate (BHL).

11/2012: As part of an integrated, multi-faceted approach to reach out to the expertise in the Information Science Community, the Deb Paul and Bryan Heidorn submitted a short notes paper about the challenges of natural history collections digitization and OCR that was accepted for presentation and publication in next year's iSchools iConference 2013. The Notes contribution is titled "Augmenting Optical Character Recognition (OCR) for Improved Digitization Strategies to Access Scientific Data in Natural History Collections." This is part of our working group's efforts to stimulate discussion and initiate collaboration between the iSchools community and our natural history collections digitization projects.

11/2012: The AOCR WG have a poster accepted for iSchools Conference 2013. The poster will cover the goals of iDigBio, centering on the AOCR WG efforts.

11/2012: The AOCR WG have an "Alternative Event" accepted for iSchools Conference 2013. After the Feb 2013 Hackathon (concurrent with the iSchools conference), about 1-3 members of the AOCR WG will take part in a 45 minute reporting session designed to give the working group the opportunity to tell the iSchools conference attendees how the hackathon went…and what's next.

11/2012: The pre-proposal for “FOSSIL – Fostering Opportunities for Synergistic STEM with Informal Learners” submitted by Bruce MacFadden, Betty Dunckel, and Austin Hendy was accepted for full proposal submission to the AISL program at NSF (solicitation 12-560). If funded, this would develop a “Third Space” cyberlearning network that will link fossil clubs and professional paleontologists in the U.S.

3/14/2013: Formation of, and first meeting of, the iDigBio Education and Outreach (E&O) subcommittee, chaired by Bruce MacFadden, charged with the responsibility of advancing the Broader Impact objective of the project as these pertain to E&O.

4/2-3/2013: Larry Page, Joanna McCaffrey, and David Jennings represented iDigBio and hosted a poster at the “Sustaining Economies and Natural Resources in a Changing World: Key Role of Land Grant Universities” symposium held by UF’s Institute of Food and Agricultural Sciences (IFAS) in Gainesville, FL. The symposium celebrated past Land Grant University (LGU) successes and explored research and extension directions that will help UF and its partners address future challenges to Sustaining Economies and Natural Resources in a Changing World.

4/2013: iDigBio is actively compiling a list of DNA banking facilities and genetic resource repositories in the United States that maintain collections of nucleic acid extracts (DNA or RNA) or preserved tissues suitable for genetic and genomic studies of biodiversity. Pam Soltis, Grant Godden, and Kevin Love created a web page of resources (listed alphabetically by institution) that represent collections currently known by or reported to iDigBio. Each entry includes the name of the institution, a brief description, and institutional link. https://www.idigbio.org/genetic-resources

4/2013: Betty Dunckel is coordinating efforts to create the first video for the Florida Museum of Natural History's Explore Research exhibit. The Explore Research exhibit showcases the University of Florida's most exciting discoveries. The first iDigBio Explore Research video introduced iDigBio and the national digitization effort to museum visitors.

Key outcomes or Other achievements:

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1/17/2012: Gil Nelson traveled to Western Carolina University to meet with herbarium director Kathy Matthews to discuss her imaging/databasing plans. Kathy was a participant in the herbarium digitization workshop.

7/12/2012: Pamela Soltis and Austin Mast conducted a Digitization Tools and Practices Workshop and Symposium at the Botany 2012 conference.

7/30-31/2012: Gil Nelson visited University of Georgia herbarium to assist in database and imaging protocols for the UGA/VSU collaborative digitization project.

7/2012: Jose Fortes discussed details regarding storage and compute resources with Craig Stewart with NSF/XSEDE, including how iDigBio may fit into their model.

7/2012: Pam Soltis presented an overview of iDigBio to the US Virtual Herbarium group's annual meeting and discussed possible collaborations.

7/2012: Pam Soltis met with iPlant representative Naim Matasci to discuss possible collaborations.

8/13/2012: Larry Page participated in a symposium on Digitization of Natural History Collections at the annual meeting of the American Society of Ichthyologists and Herpetologists.

9/2012: Bruce MacFadden presented a seminar at UT-Austin and toured the NSF-funded 3-D digitization facility located in the Jackson School of Geosciences.

9/11/2012: iDigBio staff members met with the collections managers and curators from FLMNH to review the technology demonstrator version of iDigBio's data portal. The meeting was in the form of a focus group to get feedback and ideas for future updates, including the user interface.

9/17-18/2012: Larry Page, Greg Riccardi, and Jose Fortes represented iDigBio at the NSF workshop entitled "Developing an implementation plan for the Strategic Plan for a Network Integrated Biocollections Alliance (NIBA)".

9/22/2012: Austin Hendy attended a presentation by Jason Osborne and Aaron Alford, founders of Paleo Quest (http://paleoquest.org/), a non-profit education and research organization that provides a conduit for citizen science in paleontology. Their presentation, "Accelerating Scientific Discovery through Public Participation", described how they evolved as amateur paleontologists, made connections with professional scientists, and developed their ideas for using science education in the classroom to provide data and materials to the scientific community. Austin wrote a blog article for the iDigBio website to further outreach and public participation initiatives: https://www.idigbio.org/content/accelerating-scientific-discovery-through-public-participation.

9/23-25/2012: Gil Nelson participated in the data managers' meeting of the Arizona field stations, held at Archbold Biological.

9/2012: Gil Nelson visited Mike Webster and his team at the Cornell Laboratory of Ornithology, and later hosted an Adobe Connect meeting with this group, Reed Beaman, Greg Riccardi, Jason Best, and Gil Nelson.

9/2012: Gil Nelson met with Kevin Nixon, the herbarium director at Cornell, to discuss biodiversity informatics and digitization.

10/1-2/2012: iDigBio held an AOCR workshop to identify and collate best practices, learn about state-of-the-art work in OCR and handwriting analysis, discuss development of tools for improving the OCR process. The workshop also included planning for a follow-up Hackathon for software developers to be held in Feb 2013. Participants identified OCR output products that will be useful for the community as well as metrics that will help evaluate how well different automated approaches produce these products.

10/13/2012: Bruce MacFadden gave a presentation on the “Fossils in the Cloud” program to the Southwest Florida Fossil Club. The “Fossils in the Cloud” program is an iDigBio Education and Outreach activity that is focused on diverse target audiences interested in using digitized fossil specimens for research and education in U.S. natural history museum collections.

10/19/2012: Pam Soltis included information on iDigBio in a seminar at the Chinese Academy of Sciences Institute of Botany, Kunming, China, and discussed the China Virtual Herbarium with the Academy’s Director. Discussions continued about data integration and herbarium networks.

10/31/2012: Larry Page gave a presentation on digitization of natural history collections data and the goals of iDigBio at the CODATA meeting in Taipei, Taiwan.

11/2012: Deb Paul was invited by Christiane Weirauch to present at ESA (Entomological Society of America) Conference and by Floyd Shockley to present at Entomological Collections Network Meeting (ECN) in Knoxville. The presentation was entitled “Update from the iDigBio HUB” and was part of a Symposium titled "SysEB Section Symposium: From Voucher Specimen to Climate Change: The Merging of Systematics and Ecology." Deb presented an update of activities at iDigBio and answered frequently asked questions about iDigBio’s structure, including "What is iDigBio? Where did we come from and what makes us unique? When is iDigBio going live with real data? Where is the data coming from? What does the data portal look like?" Deb’s presentation also provided information about the services/tools currently available through iDigBio and what is proposed for the future. Finally, Deb summarized the efforts of iDigBio’s current working groups.

11/2012: Deb Paul made a presentation about identifiers to the ECN meeting in Knoxville. The presentation was entitled “IDs In and Out of the Database” and was written jointly with Greg Riccardi. From the abstract: Identifiers, both human-readable and not, are being applied to specimens and their values stored in databases exposed for public use. Others interacting with the data use the specimen identifiers in publications, web sites, and again insert the data and identifiers into yet other databases where they are exposed again for re-use. What happens to those original identifiers? What are the ramifications of our choices for storing and maintaining (or not) all of our identifiers? What practices can we encourage and adopt to enable the Semantic Web to work for us - revealing relationships and discovering new data exists for a given specimen?

1/3-4/2013: Pam Soltis and Grant Godden participated in an NSF-sponsored workshop on DNA banks organized by the Missouri Botanical Garden. Pam presented an overview of iDigBio and how it could help facilitate an integrated genetic resources network. As a result of this workshop, iDigBio will take the lead in coordinating access to DNA banks/genetic resources in the US.

1/10-12/2013: Charlotte Germain-Aubrey presented a poster on her work and iDigBio at the meeting of the International Biogeography Society in Miami and developed new collaborators.

1/17/2013: Pam Soltis presented a poster on the Florida Plant Diversity project being used for workflow development at a campus-wide event celebrating UF's Ordway-Swisher Biological Station; iDigBio was mentioned and cited in the poster. The reception gave PI Soltis the opportunity to discuss iDigBio with members of UF's NEON team.

2/13-14/2013: iDigBio sponsored a Hackathon to addresses OCR output and natural language parsing of natural history museum's specimen label data. The workshop was held concurrent with iConference 2013. Participants included those interested in Natural Language Parsing, Optical Character Recognition, User Interfaces, and use of these tools by scientists and the public to access natural history museum collections data.

What opportunities for training and professional development has the project provided?

Describe opportunities for training and professional development provided to anyone who worked on the project or anyone who was involved in the activities supported by the project. "Training" activities are those in which individuals with advanced professional skills and experience assist others in attaining greater proficiency. If the research is not intended to provide training and professional development opportunities or there is nothing significant to report during this reporting period, please enter "Nothing to Report" if applicable.

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9/16-18/2012: iDigBio held the Digitizing Plant Collections Workshop at Valdosta State University, the first in a series of preparation-specific workshops focusing on organizing, launching, and maintaining a biological collections digitization program. This workshop focused on vascular and non-vascular plant digitization. The primary goal of the workshops is to prepare participants with the necessary skills and knowledge to launch or maintain a digitization program individually, through collaboration with an existing TCN, or through collaboration with iDigBio. The target audience for the workshop included collections managers, curators, and herbarium directors.

9/28-29/2012: iDigBio held the Public Participation in Digitization of Biodiversity Specimens Workshop. This workshop focused on identifying ways to engage the public in the ongoing digitization of biodiversity specimens. To identify the best ways to achieve this, workshop participants learned to identify steps in the digitization process that could involve the public, establish one or more workflows for each of those steps, keeping the motivations that drive public participants and digitizing institutions in mind, identify existing tools, expertise, and communities that can be engaged in the workflows as well as gaps where new tools, expertise, or communities are needed, and start individuals or small groups on the path to making those workflows a reality. The target audience for the workshop included project leaders, biodiversity informatics software developers, and informal education community members.

10/8-12/2012: iDigBio held its first Georeferencing "Train-the-Trainers" Workshop for TCNs and others in engaged in the digitization of biological collections in the U.S. The workshop covered tools and techniques used to correctly interpret textual location data into spatial descriptions that can be used in mapping and analyses. Participants learned the fundamentals of georeferencing best practices through a combination of lectures and hands-on exercises. Special attention was paid to the specific and unique georeferencing needs of the TCNs and their digitization activities. Within one year of completion of this event, participants are expected to organize and facilitate at least one multi-day georeferencing workshop targeted at the TCNs and other digitization projects of which the participants are representative.

11/2012: Gil Nelson attended the Specify beginning and advanced workshops at VSU.

2/12-15/2013: The AOCR Working Group conducted a workshop at iConference 2013 in Ft. Worth, TX, entitled "Help iDigBio Reveal Hidden Data: iDigBio Augmenting OCR Working Group Needs You". The workshop aimed to introduce the iSchools community to iDigBio and the AOCR Working Group mission and challenges to improve digitization efficiency. The research

areas of interest included image segmentation, autocorrection of typographical errors, semantic autocorrection, autonormalization, automated text segmentation, generating consensus records and user interfaces for these tasks. The workshop sought community insights, collective experiences and partnership in order to find ways to improve the digitization process to create a national searchable online specimen-based data set that is fit-for-use by scientists and the public. The workshop was followed by an Alternative Event entitled "Help iDigBio Reveal Hidden Data: iDigBio Augmenting OCR Working Group Needs You – Part II", where the AOCR Working Group was able to report back to the workshop attendees about their first experience using a Hackathon model to work on parsing and user interface design issues specific to iDigBio's needs.

3/5-6/2013: iDigBio sponsored a workshop at the University of Kansas focused on digitization of wet collections, including specimen label databasing, specimen imaging, ledger and field book imaging, and digitization of legacy objects such as X-rays, CT scans, and 35mm slides. The target audience included collections managers, curators, and directors in U.S. non-federal institutions that are engaged in planning, implementing, or enhancing a digitization program, regardless of collection size. The primary goal was to prepare participants to return to their home institutions with the necessary skills and knowledge to launch or enhance a digitization program, either individually, through collaboration with an existing TCN, PEN, or through direct collaboration with iDigBio.

4/10-13/2013: iDigBio sponsored a symposium and workshop on museum collection digitization efforts at the 2013 meeting of the Association of Southeastern Biologists (ASB) hosted by Marshall University. The emphasis was on workflow options, workflow efficiency and motivation and social issues in collaboration including STEM issues. The symposium provided exposure to digitization efforts and challenges across taxonomic groups, while the workshop provided a one-day training session on workflow concepts and logistics.

4/24-25/2013: iDigBio sponsored a workshop focused on digitization of dried insect specimens, stored in drawers and trays, either pinned or in packets. Workshop topics included specimen label databasing, specimen imaging, ledger and field book databasing and imaging, database selection decisions, and digitization workflows. The workshop was held at The Field Museum, in Chicago, IL. The target audience included collections managers, curators, and directors in U.S. non-federal institutions that are engaged in planning, implementing, or enhancing a digitization program, regardless of collection size. The primary goal was to prepare participants to return to their home institutions with the necessary skills and knowledge to launch or enhance a digitization program, either individually, through collaboration with an existing TCN, PEN, or through direct collaboration with iDigBio.

6/17-22/2013: Larry Page, Pam Soltis, Bruce MacFadden, and Joanna McCaffrey collaborated, planned and conducted an all-day symposium co-sponsored by iDigBio and NSCA about 'Diverse Uses of Natural History Collections' at the 2013 meeting of The Society For The Preservation of Natural History Collections (SPNHC) in Rapids City, SD. The first half discussed the iDigBio program, NIBA, and ADBC, and the second half featured invited speakers about using natural history specimens to study such topics as climate change and other complex biodiversity questions.

6/17-22/2013: iDigBio co-sponsored Demo Camp at the 2013 meeting of SPNHC in Rapids City, SD, which provided a venue for promotion of technological solutions that advance the field of museum curation and specimen digitization, with broad applications for biology, ecology, and biodiversity informatics.

Ongoing activities:

- Grant Godden and Ryan Moraski are learning new skills through their assistantships and are becoming part of the larger collections community.

- Charlotte Germain-Aubrey is developing research workflows involving collections data and is training others at FLMNH in the use of the methods she is using.
- Austin Hendy is developing curation/image/research workflows using paleontology collections at the FLMNH and other institutions. Graduate and undergraduate students assisting in this project are contributing to components of this development and are being trained in all methods.

How have the results been disseminated to communities of interest?

Describe how the results have been disseminated to communities of interest. Include any outreach activities that have been undertaken to reach members of communities who are not usually aware of these research activities, for the purpose of enhancing public understanding and increasing interest in learning and careers in science, technology, and the humanities.
8000 characters maximum

10/13-14/2012: iDigBio was represented by Kevin Love, Joanna McCaffrey and Larry Page at the Florida Museum of Natural History's ButterflyFest. This annual festival increases awareness of Florida's butterflies as fun, fascinating ambassadors to the natural world. iDigBio staff promoted inquiry about biodiversity and the grand challenges of the digitization community while advancing a call to action for the conservation and preservation of backyard wildlife and habitats. iDigBio created an interactive display that enabled event visitors to participate in specimen digitization where the resulting images were posted to the iDigBio Facebook page. Over the course of 2 days, more than 160 young digitizers participated in iDigBio's digitization activity.

10/19/2012: Deb Paul, Michael Denslow (Notes from Nature), Ben Brumfield (FromThePage.com), Ben Laurie (Apache Software), Afron Smith, met to discuss and share ideas (and possibly software).

10/25/2012: Gil Nelson, Joanna McCaffrey, Larry Page, Doug Jones, Reed Beaman, and Gustav Paulay participated in a meeting at the Florida Museum of Natural History with Jim Beach and Rodney Spears of Specify to offer input concerning the museum's adoption of Specify.

10/30/2012: Deb Paul and the GWG met with Alberto González-Talaván from GBIF to discuss how iDigBio and the GWG can collaborate on the development, testing and implementation of eLearning materials for georeferencing.

11/2012: Deb Paul represented iDigBio at the Entomological Collections Network Meeting and Entomological Society of America Conference in Knoxville, TN and met with Floyd Shockley, Katrina Menard, Andrew Short, Gail Kampmeier, Randall Schuh, Melissa Tulig, Torsten Dikow, Townsend Peterson and Christiane Weirauch while there.

11/4-7/2012: Bruce MacFadden met with representatives of the Paleocollections Working Group at the Geological Society of America annual meeting in Charlotte, NC.

11/28/2012: Larry Page met with the NSCA Board to discuss relationships between iDigBio and NSCA, including the joint symposium to be held at SPNHC in June 2013. Larry Page, Pam Soltis, Bruce MacFadden, Joanna McCaffrey and Elizabeth Martin (BISON) are collaborating to plan an all-day symposium about 'Diverse Uses of Natural History Collections'.

11/29/2012: David Jennings participated in an interview with James Smith of the Smithsonian Institution's Digitization Program Office regarding their study of digitization costs and processes across the Smithsonian's collecting units, which include museums, archives, libraries, and scientific research centers. The interviewer was interested in workflows, technologies, staffing needs, costs, and other issues in an effort to identify areas where efficiencies might be achieved. David gave an overview of iDigBio and the resources available for them on the website and wiki, including contact information for the TCNs who are doing the actual digitization.

11/30/2012: David Jennings, Joanna McCaffrey, Andrea Matsunaga, and Greg Riccardi participated in a kickoff meeting with NESCENT's Cyberinfrastructure for Collaborative Science Working Group (COLLABIT) to establish technical coordination among the nation's biocenters.

1/7-8/2013: iDigBio hosted a meeting with the BiSciCol group to discuss identifiers. The meeting recapped recent developments, reviewed a proposed identifier document, and included an open discussion with iDigBio regarding IDs and a plan for a test implementation of data from FSU, TTRS and Morphbank to illustrate what BiSciCol can do with a dataset once these identifiers are in place.

1/7-11/2013: Joanna McCaffrey represented iDigBio at the Global Plant Initiative (GPI) meeting in Panama to discuss sustainability planning.

2/25/2013: iDigBio PIs and project staff met with Walter Jetz from the Map of Life project. Walter shared how Map of Life assembles and integrates different sources of data describing species distributions worldwide. These data include expert species range maps, species occurrence points, ecoregions, and protected areas from providers like IUCN, WWF, GBIF, and more. All of Map or Life's data assets are stored, managed, backed up, and accessed using a hosted CartoDB instance in the cloud. iDigBio is excited about the work Walter and his collaborators are doing through the Map of Life project. This introductory meeting provided a foundation for future collaboration between iDigBio and Map of Life.

3/1/2013: Joanna McCaffrey made initial contact with Dora Canhos with the Centro de Referência em Informação Ambiental (Reference Center on Environmental Information) in Brazil. CRIA is a not-for-profit, non-government organization whose aim is to contribute towards a more sustainable use of Brazil's biodiversity through the dissemination of high quality information and education.

3/6-8/2013: Joanna McCaffrey represented iDigBio's needs for future development of the collections management software Specify at a meeting in Ottawa, Canada.

4/9-10/2013: Larry Page represented iDigBio at the Dimensions of Biodiversity Workshop in Panama organized by INDICASAT (the Panamanian National Institute of Science and Technology) and NSF. Larry gave a presentation about iDigBio activities and promoted use of digitized information from biodiversity collections in projects funded by Dimensions.

4/11-13/2013: Pam Soltis presented a talk on iDigBio and its role in integrating DNA banks to a workshop sponsored by the AIM-UP! (Advancing the Integration of Museums into Undergraduate Programs) Research Coordination Network – Undergraduate Biological Education, held at Harvard University.

4/20/2013: iDigBio was represented by David Jennings, Kevin Love, and Cathy Bester at the Florida Museum of Natural History's Earth Day BioBlitz. This annual festival celebrates Earth Day and offers the public a chance to see diverse specimens from the museum's vast collections. iDigBio's display included a computer running the new Explore Research video, a computer allowing sign-up for iDigBio's newsletter, a mock digitization activity, and free iDigBio posters. A total of 402 children and 940 adults attended the FLMNH Earth Day BioBlitz.

5/2-3/2013: Larry Page and Pam Soltis represented iDigBio at the CollectionsWeb Stakeholders Workshop at the Smithsonian in Washington D.C. The workshop focused on increasing the use and accessibility of data from natural history collections and the long-term sustainability of institutional collections and digitization activities.

5/20-24/2013: Greg Riccardi and Deb Paul represented iDigBio at the pro-iBiosphere meeting in Berlin. The meeting consisted of workshops on coordination and routes for cooperation across organizations, projects and e-infrastructures; measuring and constraining the costs of delivering services; and stakeholder requirements.

5/22-23/2013: Pam Soltis, David Jennings, and Gil Nelson represented iDigBio at the first Assembling, Visualizing, and Analyzing the Tree of Life (AVAToL) PI meeting in Arlington, VA. The goal is to coordinate and integrate, to the extent possible, the efforts of AVAToL and other CI initiatives, such as iDigBio. The goal of AVAToL is to reinvent the way systematics is conducted with results from phylogenetic analyses moving from static publications to an open, current and updatable growing Tree of Life. iDigBio gave presentations about iDigBio activities and promoted the use of digitized information from biodiversity collections in Tree of Life projects.

Larry Page serves a board member on the San Jose State University School of Library and Information Science Program Advisory Committee focused on Management, Digitization, and Preservation of Cultural Heritage and Records.

Larry Page serves on the National Ecological Observatory Network (NEON) Collections Technical Working Group, which advises NEON regarding scientific, technical and implementation issues related to the collections program.

What do you plan to do during the next reporting period to accomplish the goals?

8000 characters maximum

iDigBio will continue its mission to develop a national infrastructure that supports the vision of ADBC by overseeing implementation of standards and best practices for digitization; building and deploying a customized cloud computing environment for collections; recruiting and training personnel, including underserved groups; engaging the research community, collections community, citizen scientists, and the public through education and outreach activities; and planning for long-term sustainability of the national digitization effort. iDigBio will continue to enable digitization of data from all U.S. biological collections and integrate those data to make them broadly available and useful with shared standards and formats.

Ongoing activities:

- Joanna McCaffrey is managing the ingestion of data into the iDigBio specimen data portal.
- Deb Paul is gathering input on the Identifiers talk from the broader community.
- Deb Paul has begun conversations with various community members regarding proposing a biodiversity informatics workshop development to bridge the current informatics knowledge gap for current and future undergraduates, graduate students and collection managers to facilitate future data management, data-sharing, data quality and ethical data-use issues.
- The AOCR WG is reviewing the results of the February hackathon and discussing how to move forward with the development of web services that could make useful OCR and OCR output analysis tools available to the community if they are using label images or images of other types of text (e.g., field notebooks) in their digitization workflows. Currently, the AOCR WG is writing a paper about the hackathon, what was learned and next steps, focusing on helping the community with choosing OCR software and analysis tools for best digitization outcomes and user-interface transcription experience. In addition, they are working on a workflow document (jointly with DROID WG) starting with a first version delivered from the hackathon and further refinement of a standardized test set of images, OCR output and Darwin Core parsed text files to evaluate and score algorithms for automated parsing.
- The GWG is developing plans for a 2nd Georeferencing Train the Trainers Workshop using outcomes from first one as a guide as well as georeferencing training materials development, including eLearning materials production and evaluation in collaboration with GBIF and Robert Hanner (iBOLD, GBIF, eLearning & University of Guelph).
- iDigBio post-doc Charlotte Germain-Aubrey is continuing her work on integrating herbarium specimen data, climate models, ecological niche modeling, and molecular phylogenies to formulate research workflows to be enabled by the iDigBio cyberinfrastructure.

- Larry Page, Joanna McCaffrey, and Cathy Bester are working on a pamphlet that advertises the activities, roadmap, objectives and value of iDigBio, TCNs, and interaction with strategic partners.
- Bruce MacFadden, Betty Dunckel, and Austin Hendy submitted a proposal in 8/2012 to the Advancing Informal STEM Learning (AISL) program. Their submission was subsequently selected in 10/2012 for additional consideration as a formal full proposal, which was submitted for the Jan 14 deadline. The proposed project was entitled "FOSSIL—Fostering Opportunities for Synergistic STEM with Informal Learners", and will develop a cyberenabled Community of Inquiry in which our primary target audience, U.S. fossil club members, are networked with each other as well as with professional paleontologists, receive training and development, attend meetings and workshops, and have on-line access to 100 million digitized fossils in U.S. natural history museums. FOSSIL has a research component to better understand how and what fossil club members are learning and interacting within the Community of Inquiry. FOSSIL will build upon ongoing national "Big Data" initiatives that over the next decade will place digitized natural history specimens into a Cloud, thus enabling access by diverse stakeholders, including the fossil clubs. The FOSSIL project will also engage the fossil clubs via crowdsourcing to assist in this national initiative to digitize fossil specimens for the Cloud. The knowledge gained from our research with FOSSIL will inform future cyberlearning projects how to better engage the public with scientific data in the Cloud.
- Pam Soltis has served as a liaison with the Botanical Society of America for planning and support of 3 symposia related to digitization, for inclusion in the program for the annual meeting in July 2013.
- Larry Page, Joanna McCaffrey, and Elizabeth Martin (USGS/BISON) are finalizing the planning for this year's SPNHC symposium 'Diverse Uses of Natural History Collections' in June 2013.
- Joanna McCaffrey and Gil Nelson are co-planning the Dried Insect Digitization workshop scheduled for 4/2013.
- iDigBio personnel participate in the regular COLLABIT meetings, which are aimed at establishing collaboration and technical coordination among the nation's Biocenters.
- Joanna McCaffrey serves on the FLMNH Informatics Committee to consult with FLMNH's move to a new collections management system, Specify, and otherwise be a resource for the coordination of iDigBio with the FLMNH.
- Austin Hendy is working on an infrastructure that will allow integration of FLMNH collection database specimen data with imaged specimens and housing of supplementary data (biological geological, taxonomic) for web ingestion to the Fossils of Panama website.
- Austin Hendy is surveying and imaging Panama fossil specimens from North American natural history museums, including (UCMP, CAS, PRI, USNM, and FLMNH) and developing web resources for education/research usage using those digital media.
- Austin Hendy has been communicating with collections staff at multiple museums to understand digitization protocols and activities at those institutions.
- Gil Nelson chairs the MISC Working Group, which completed a draft report for Phase 1 at the end of 2012. The group is now working to refine their report based on feedback from the community.
- Gil Nelson chairs iDigBio's internal digitization activities.
- Joanna McCaffrey and Andrea Matsunaga meet weekly to develop requirements and identify potential issues related to bioinformatics and the specimen database. They developed user interface requirements for the image and data ingestion appliances. They also meet with other specialists to help define requirements and structures, e.g. they are working with Austin Hendy regarding items related to Geology, such as CollectionObject fields.
- Joanna McCaffrey and Gil Nelson co-chair the Biodiversity Informatics Management working group.
- The core iDigBio project administration staff meet bi-weekly to review progress and to plan upcoming activities.
- The core iDigBio IT and Digitization staff meet weekly to review progress and to plan the week's activities.
- The iDigBio IT, Digitization, and key Administrative staff meet bi-weekly with the Cyberinfrastructure and Digitization PIs to coordinate decision-making on key issues.

- The iDigBio Steering Committee meets monthly to review project progress and to discuss upcoming strategic issues. In addition, the iDigBio PIs have additional meetings in-between Steering Committee meetings to discuss and resolve key issues.
- iDigBio personnel and TCN personnel meet bi-monthly in a collaborative effort to discuss ongoing operations, gaps, needs, planned activities, procedural questions, and opportunities for improvement.

Supporting Files

You may upload pdf files with images, tables, charts, or other graphics in support of this section. You may upload up to 4 pdf files with a maximum file size of 5 MB each.

Filename	Description
iDigBio_EAB_Report_2013.03.22.pdf	iDigBio 2013 External Advisory Board Report
iDigBio_Visiting_Scholar_Report_Monfils.pdf	iDigBio Visiting Scholar Report – Anna Monfils
iDigBio_Visiting_Scholar_Report_Toler-Franklin.pdf	iDigBio Visiting Scholar Report – Corey Toler-Franklin
Award_1115210_Y2_Annual_Report_Attachments	Sponsored workshop tracking and demographics, Year 3 revised budgets, website usage statistics, eNewsletter statistics, collaboration software statistics, and social media statistics

PRODUCTS – WHAT HAS THE PROJECT PRODUCED?

For NSF purposes, the PI should include and discuss in the Product section the goals associated with data management and access and note any significant changes in them, as well as specific plans for dissemination of data, software and other digital research products. When you report any of these items, please include any available identifiers and whether and how these products can be accessed or shared.

***INSTRUCTIONS:** List any products resulting from the project during the reporting period. If there is nothing to report under a particular item, please enter "Nothing to Report" if applicable.*

*You and your institution are responsible for assuring that any publication including World Wide Web pages developed under or based on NSF support of your project includes an acknowledgment of that support in the following terms: "**This material is based upon work supported by the National Science Foundation under Grant Number (NSF Grant Number).**"*

*You and your institution are also responsible for assuring that every publication of material (including World Wide Web pages) based on or developed under award, (other than a scientific article or paper appearing in a scientific, technical, or professional journal), contains the following disclaimer: "**Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.**"*

Publications

Report only the major publication(s) resulting from the work under this award. There is no restriction on the number. However, agencies are interested in only those publications that most reflect the work under this award in the following categories:

● Journal publications. List peer-reviewed articles or papers appearing in scientific, technical, or professional journals.

● Books or other non-periodical, one-time publications. Report any book, monograph, dissertation, abstract, or the like published as or in a separate publication, rather than a periodical or series

● Other publications, conference papers and presentations. Identify any other publications, conference papers and/or presentations not reported above.

Journal

Author(s)	Baker B
Title	New Push to Bring US Biological Collections to the World's Online Community
Journal	Bioscience
Volume	61

Issue	9
Publication Date	9/1/2011
Page Numbers	657-662
Identifier	10.1525/bio.2011.61.9.4
Publication Identifier Type	DOI
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Author(s)	Mardis MA, Hoffman ES, McMartin FP
Title	Toward broader impacts: Making sense of NSF's merit review criteria in the context of the National Science Digital Library
Journal	J. Am. Soc. Inf. Sci.
Volume	63
Issue	9
Publication Date	8/14/2012
Page Numbers	1758-1772
Identifier	10.1002/asi.22693
Publication Identifier Type	DOI
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Author(s)	Nelson G, Paul D, Riccardi G, Mast A
Title	Five task clusters that enable efficient and effective digitization of biological collections
Journal	ZooKeys
Volume	209
Issue	
Publication Date	7/20/2012
Page Numbers	19-45
Identifier	10.3897/zookeys.209.3135
Publication Identifier Type	DOI
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Author(s)	Smith V, Blagoderov V
Title	Bringing collections out of the dark
Journal	ZooKeys
Volume	209
Issue	
Publication Date	7/20/2012
Page Numbers	1-6
Identifier	10.3897/zookeys.209.3699
Publication Identifier Type	DOI
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Author(s)	Bertone M, Blinn R, Stanfield T, Dew K, Seltmann K, Deans A

Title	Results and insights from the NCSU Insect Museum GigaPan project
Journal	ZooKeys
Volume	209
Issue	
Publication Date	7/20/2012
Page Numbers	115-132
Identifier	10.3897/zookeys.209.3083
Publication Identifier Type	DOI
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Author(s)	Dietrich C, Hart J, Raila D, Ravaioli U, Sobh N, Sobh O, Taylor C
Title	InvertNet: a new paradigm for digital access to invertebrate collections
Journal	ZooKeys
Volume	209
Issue	
Publication Date	7/20/2012
Page Numbers	165-181
Identifier	10.3897/zookeys.209.3571
Publication Identifier Type	DOI
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Author(s)	Schmidt S, Balke M, Lafogler S
Title	DScan – a high-performance digital scanning system for entomological collections
Journal	ZooKeys
Volume	209
Issue	
Publication Date	7/20/2012
Page Numbers	183-191
Identifier	10.3897/zookeys.209.3115
Publication Identifier Type	DOI
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Author(s)	Wheeler Q, Bourgoin T, Coddington J, Gostony T, Hamilton A, Larimer R, Polaszek A, Schauff M, Solis A
Title	Nomenclatural benchmarking: the roles of digital typification and telemicroscopy
Journal	ZooKeys
Volume	209
Issue	
Publication Date	7/20/2012
Page Numbers	193-202
Identifier	10.3897/zookeys.209.3486
Publication Identifier Type	DOI
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Author(s)	Schuh R
Title	Integrating specimen databases and revisionary systematics
Journal	ZooKeys
Volume	209
Issue	
Publication Date	7/20/2012
Page Numbers	255-267
Identifier	10.3897/zookeys.209.3288
Publication Identifier Type	DOI
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Author(s)	Elisens W
Title	Virtual Herbaria Come of Age
Journal	Oklahoma Native Plant Record
Volume	12
Issue	1
Publication Date	12/1/2012
Page Numbers	69-71
Identifier	15367738
Publication Identifier Type	ISSN
Status of Publication	Published
Acknowledgement of Federal Support	Yes
Peer Reviewed	Yes

Conference Papers and Presentations

Paper Title	Correcting and Standardizing Taxonomic Names with the TaxonomicName Resolution Service
Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Matasci N, Boyle B, Lu Z, Hopkins N, Piel W, Raygoza G, Antonio J, McKay S, Narro M, Enquist B
Acknowledgement of Federal Support	Yes

Paper Title	Digitizing 'all' North American lichen and bryophyte specimens: 2.3 million specimens, 65 institutions, 1 year later
Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Gries C, Gilbert E
Acknowledgement of Federal Support	Yes

Paper Title	Engaging Collaborations for Computerization with Specify
Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH

Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Bentley A
Acknowledgement of Federal Support	Yes

Paper Title	iDigBio: Vision, Mission, and Opportunities for Engagement
Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Soltis P, Mast A
Acknowledgement of Federal Support	Yes

Paper Title	Integrative research using digitized specimens: examples from the Consortium of California Herbaria
Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Mishler B, Mcdade L
Acknowledgement of Federal Support	Yes

Paper Title	A botanical annotation network powered by Filtered Push
Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Macklin J, Dou L, Hanken J, Kelley M, Lowery D, Ludaescher B, Morris P, Morris R
Acknowledgement of Federal Support	Yes

Paper Title	Mobilizing New England Vascular Plant Specimen Data to Track Environmental Changes
Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Sweeney P, Barrington D, Davis C, Donoghue M, Edwards E, Foster D, Morris P, Neefus C, Primack R, Searcy K, Starly B, Sullivan J
Acknowledgement of Federal Support	Yes

Paper Title	Plants, Herbivores, and Parasitoids: A model system for the study of tri-trophic associations
Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Naczi R, Tulig M, Rabeler R, Magill R, Schuh R
Acknowledgement of Federal Support	Yes

Paper Title	The Case for Collections: Getting to the First Step

Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Skog J
Acknowledgement of Federal Support	Yes

Paper Title	The Macrofungi Collection Consortium (MaCC): Unlocking a Biodiversity Resource for Understanding Biotic Interactions, Nutrient Cycling and Human Affairs
Conference Name	Botany 2012 (Symposium)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/11/2012
Author(s)	Thiers BM
Acknowledgement of Federal Support	Yes

Paper Title	A Library Science Perspective on Digitization
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Heidorn B
Acknowledgement of Federal Support	Yes

Paper Title	An Industrial Engineer's Perspective on Digitization
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Eastwood R
Acknowledgement of Federal Support	Yes

Paper Title	Best Practices for Managing and Motivating the Digitizers
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Gall L
Acknowledgement of Federal Support	Yes

Paper Title	Databasing and digitization of a smaller herbarium at a smaller institution: it CAN be done and funded, too
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Dolan RW
Acknowledgement of Federal Support	Yes

Paper Title	Encyclopedia of Life Tools

Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Schulz K
Acknowledgement of Federal Support	Yes

Paper Title	Filtered-Push
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Macklin J
Acknowledgement of Federal Support	Yes

Paper Title	Imaging Guidelines and Image Archiving Policy at The New York Botanical Garden
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Bevans M
Acknowledgement of Federal Support	Yes

Paper Title	Implementing Optical Character Recognition in Herbarium Digitization Workflows: Current practices and challenges
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Gottschalk S
Acknowledgement of Federal Support	Yes

Paper Title	Integrating botanical and herbarium databases
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Brown BH, Hipp AL, Hedborn EA
Acknowledgement of Federal Support	Yes

Paper Title	iPlant Tools
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Matasci N
Acknowledgement of Federal Support	Yes

Paper Title	Morphbank
Conference Name	Botany 2012 (Workshop)

Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Paul D
Acknowledgement of Federal Support	Yes

Paper Title	Organizing, implementing and utilizing a digitized small herbarium: Plans for an iDigBio Visiting Scholar Fellowship
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Monfils A
Acknowledgement of Federal Support	Yes

Paper Title	Rapid Digitization of the World's Largest Herbarium
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Michiels H
Acknowledgement of Federal Support	Yes

Paper Title	SilverBiology
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Giddens M
Acknowledgement of Federal Support	Yes

Paper Title	Specify
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Bentley A
Acknowledgement of Federal Support	Yes

Paper Title	SWITCH (SouthWest Idaho: The Comprehensive Herbarium)
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	DiNicola A, Mansfield D, Smith J
Acknowledgement of Federal Support	Yes

Paper Title	The Five Task Clusters of Digitization
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH

Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Nelson G
Acknowledgement of Federal Support	Yes

Paper Title	The Projeto Flora Amazonica field books: An excellent resource for improving data input efficiency
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Asencio SD
Acknowledgement of Federal Support	Yes

Paper Title	The Strategic Plan for Establishing a Network Integrated Biocollections Alliance
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Skog J
Acknowledgement of Federal Support	Yes

Paper Title	The Swingle Plant Anatomy Collection: Making the case for digitizing unusual natural history collections
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Whitlock BA
Acknowledgement of Federal Support	Yes

Paper Title	Tri-Trophic Digitization Strategies
Conference Name	Botany 2012 (Workshop)
Conference Location	Columbus, OH
Status of Publication	Other
Conference Date	7/12/2012
Author(s)	Watson K, Tulig M
Acknowledgement of Federal Support	Yes

Paper Title	Augmenting optical character recognition (OCR) for improved digitization: Strategies to access scientific data in natural history collections
Conference Name	iConference 2013 (Proceedings)
Conference Location	Ft. Worth, TX
Status of Publication	Published
Conference Date	2/12/2013
Author(s)	Paul D, Heidorn PB
Acknowledgement of Federal Support	Yes

Paper Title	Improving the Character of Optical Character Recognition (OCR): iDigBio Augmenting OCR Working Group Seeks Collaborators and Strategies to Improve

	OCR Output and Parsing of OCR Output for Faster, More Efficient, Cheaper Natural History Collections Specimen Label Digitization
Conference Name	iConference 2013 (Proceedings)
Conference Location	Ft. Worth, TX
Status of Publication	Published
Conference Date	2/12/2013
Author(s)	Anglin R, Best J, Figueiredo R, Gilbert E, Gnanasambandam N, Gottschalk S, Haston E, Heidorn PB, Lafferty D, Lang P, Nelson G, Paul D, Ulate W, Watson K, Zhang Q
Acknowledgement of Federal Support	Yes

Paper Title	Help iDigBio reveal hidden data: iDigBio Augmenting OCR working group needs you
Conference Name	iConference 2013 (Proceedings)
Conference Location	Ft. Worth, TX
Status of Publication	Published
Conference Date	2/12/2013
Author(s)	Paul D, Heidorn PB, Best J, Gilbert E, Neill A, Nelson G, Ulate W
Acknowledgement of Federal Support	Yes

Paper Title	Help iDigBio reveal hidden data: iDigBio Augmenting OCR working group needs you - Part II
Conference Name	iConference 2013 (Proceedings)
Conference Location	Ft. Worth, TX
Status of Publication	Published
Conference Date	2/12/2013
Author(s)	Paul D, Heidorn PB, Best J, Gilbert E, Neill A, Ulate W
Acknowledgement of Federal Support	Yes

Paper Title	Introducing iDigBio and the Augmenting OCR Working Group
Conference Name	iConference 2013 (Workshop)
Conference Location	Ft. Worth, TX
Status of Publication	Other
Conference Date	2/12/2013
Author(s)	Paul D
Acknowledgement of Federal Support	Yes

Paper Title	Digitization of biocollections -- a grand challenge in scope, scale, and significance
Conference Name	iConference 2013 (Workshop)
Conference Location	Ft. Worth, TX
Status of Publication	Other
Conference Date	2/12/2013
Author(s)	Neill A
Acknowledgement of Federal Support	Yes

Paper Title	The Apiary Project -- a workflow for text extraction and parsing for herbarium specimens
Conference Name	iConference 2013 (Workshop)
Conference Location	Ft. Worth, TX
Status of Publication	Other

Conference Date	2/12/2013
Author(s)	Best J
Acknowledgement of Federal Support	Yes

Paper Title	Symbiota - Creating an OCR and NLP enabled user interface and workflow to efficiently digitize 2.3 million lichen and bryophyte specimens
Conference Name	iConference 2013 (Workshop)
Conference Location	Ft. Worth, TX
Status of Publication	Other
Conference Date	2/12/2013
Author(s)	Gilbert E
Acknowledgement of Federal Support	Yes

Paper Title	HERBIS/LABELX -- Machine Learning Approach to Parsing OCR Text
Conference Name	iConference 2013 (Workshop)
Conference Location	Ft. Worth, TX
Status of Publication	Other
Conference Date	2/12/2013
Author(s)	Heidorn B
Acknowledgement of Federal Support	Yes

Paper Title	Linking Data -- Biodiversity Heritage Library -- supporting knowledge discovery from digitized content
Conference Name	iConference 2013 (Workshop)
Conference Location	Ft. Worth, TX
Status of Publication	Other
Conference Date	2/12/2013
Author(s)	Mignault J
Acknowledgement of Federal Support	Yes

Paper Title	Phylogenetic diversity today and tomorrow: the Florida plant phylogeny project
Conference Name	International Biogeography Society, 6th Biennial meeting
Conference Location	Miami, FL
Status of Publication	Published
Conference Date	1/9/2013
Author(s)	Germain-Aubrey C, Soltis P, Burleigh G, Soltis D, Allen J, Neubig K, Majure L, Abbott R
Acknowledgement of Federal Support	Yes

Paper Title	Alphabet Soup: Overview of NIBA - ADBC – MOU
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Page L
Acknowledgement of Federal Support	Yes

Paper Title	NSCA - the State of Collections
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD

Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Page L
Acknowledgement of Federal Support	Yes

Paper Title	Intro to iDigBio, Survey of TCNs, PENs, RDCN
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Page L
Acknowledgement of Federal Support	Yes

Paper Title	Intro to Digitization: Metadata & Data Standards, Photography
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Nelson G
Acknowledgement of Federal Support	Yes

Paper Title	Geo-referencing, aOCR
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Paul D
Acknowledgement of Federal Support	Yes

Paper Title	Paleo-digitization Initiatives, Fossils in the Cloud
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	MacFadden B
Acknowledgement of Federal Support	Yes

Paper Title	Introduction to a TCN: PaleoNICHES
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Farrell U
Acknowledgement of Federal Support	Yes

Paper Title	Introduction to BISON and the IWGSC: Federal Collections Coordination
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013

Author(s)	Guala S
Acknowledgement of Federal Support	Yes

Paper Title	Understanding the use and users of natural history collections data: Why this matters
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Martin E
Acknowledgement of Federal Support	Yes

Paper Title	Using creative ways to use botanical specimens in climate change research
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Primack R
Acknowledgement of Federal Support	Yes

Paper Title	Mining Natural History Collections for Invasive Species Data in New York
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Dean J
Acknowledgement of Federal Support	Yes

Paper Title	Trends in turtle distribution and status: how old collections continue to inform future actions
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	van Dijk PP
Acknowledgement of Federal Support	Yes

Paper Title	Plant fossils and plastid genomes: Integrating molecular and morphological data sets for reconstructing phylogeny and biogeography in Icacinaceae
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Stull G
Acknowledgement of Federal Support	Yes

Paper Title	The challenges to making paleontological collections data usable to a broader audience
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD

Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Holroyd P
Acknowledgement of Federal Support	Yes

Paper Title	Inside Zoological Collections: Perspectives of the Academic (Re)user
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Faniel I
Acknowledgement of Federal Support	Yes

Paper Title	Herbarium data in support of biodiversity research: opportunities and challenges
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Denslow M
Acknowledgement of Federal Support	Yes

Paper Title	The Botanical Information and Ecology Network (BIEN): A research and collections collaboration to investigate the ecological impacts of global climate change on plant biodiversity
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Thiers B
Acknowledgement of Federal Support	Yes

Paper Title	Increasing research use of biodiversity collections through ontology-based data integration across biodiversity databases
Conference Name	28th Annual Meeting of SPNHC - 2013 (Symposium)
Conference Location	Rapid City, SD
Status of Publication	Other
Conference Date	6/20/2013
Author(s)	Bart H
Acknowledgement of Federal Support	Yes

Technologies or techniques

Identify technologies or techniques that have resulted from the research activities. Describe the technologies or techniques and how they are being shared.

Nothing to report.

Inventions, patent applications, and/or licenses

Identify inventions, patent applications with date, and/or licenses that have resulted from the research. Submission of this information as part of an interim research performance progress report is not a substitute for any other invention reporting required under the terms and conditions of an award. You should ensure that your project report contains no invention disclosures that might adversely affect patent rights in subject invention under this award. For more information, consult the administration office that handles patents and other intellectual property at your institution.

Nothing to report.

Websites

List the URL for any Internet sites(s) that disseminates the results of the research activities. A short description of each site should be provided.

Title	URL	Description
iDigBio Website	https://www.idigbio.org	Primary website for collaboration, dissemination of information, and training. Currently includes forums, a primary website, and a Wiki. A redesign of the website was released in February 2013 that focused on making it easier to understand and to use. In addition, the site was improved to be more approachable to a lay visitor. With the latest release of the iDigBio specimen portal, there is also a new consistency in the visual language used, which will help users navigate the collection of technologies that make up the iDigBio website. Several further improvements to content organization are planned in future iterative steps.
Temporary TCN Storage	https://storage.idigbio.org	Temporary storage location provided to enable storage of images for TCNs requiring this resource.
iDigBio Specimen Data Portal	https://portal.idigbio.org	Portal demonstrating access to the specimen and image database, including search technology and geovisualization functions. The V1 release (February 2013) of the iDigBio Portal and APIs is focused on correcting shortcomings identified in the technology demonstrator (V0) and in completing the foundation for a system that will serve the community for years to come. The release includes numerous front-end user interface improvements, improved stability and flexibility of the API, and due diligence to create requirements for data providers that are minimal but sufficient to ensure the smooth operation of the system. Several of the systems being deployed with V1 are brand new with this release (e.g., ID resolver and CSV download) and may change significantly in the future based on identified needs, uses, and suggestions for improvements to their operation.

Other products, such as data or databases, physical collections, audio or video products, software or NetWare, models, educational aids or curricula, instruments, or equipment

Identify any other significant products that were developed under this project. Describe the product and how it is being shared.

Product Type	Description & Sharing Information
Educational aids or Curricula	Work flows and task lists for digitizing vascular and non-vascular plant collections, consisting of orderly, comprehensive task lists to serve as foundations from which institution-specific workflows can be created: https://www.idigbio.org/content/workflow-modules-and-task-lists
Educational aids or Curricula	Wiki for the upcoming digitization workshops, including the creation of several videos and documents to support workshop participants: https://www.idigbio.org/wiki/index.php/Digitization_Training_Workshops
Educational aids or Curricula	An online repository for sharing existing customized workflows from as many collection

	types and institutions as possible: https://www.idigbio.org/content/digitization-workflows
Educational aids or Curricula	An initial glossary of digitization tools has been posted on the iDigBio Wiki, to be maintained and enhanced by iDigBio personnel and the general community: https://www.idigbio.org/wiki/index.php/Glossary_of_Tools
Educational aids or Curricula	An initial glossary of digitization/biological terms has been posted on the iDigBio Wiki, to be maintained and enhanced by iDigBio personnel and the general community: https://www.idigbio.org/wiki/index.php/Glossary_of_Terms
Educational aids or Curricula	An initial glossary of digitization/biological projects and organizations has been posted on the iDigBio Wiki, to be maintained and enhanced by iDigBio personnel and the general community: https://www.idigbio.org/wiki/index.php/Glossary_of_Projects_and_Organizations
Educational aids or Curricula	An initial page set up to gather and organize resources used for Georeferencing onto one page has been posted to the iDigBio Wiki, to be maintained by iDigBio personnel and the community: https://www.idigbio.org/wiki/index.php/Georeferencing
Educational aids or Curricula	An initial page designed to gather known effective OCR practices from the community and share examples of OCR use, OCR Output and Workflows utilizing OCR. It is a designed to be a compilation of OCR resources, Technical Issues and Workflows for use by the community: https://www.idigbio.org/wiki/index.php/Augmenting_OCR
Audio or Video Products	Working with Andrew Bentley of Specify to develop a video for October Georeferencing Train the Trainers Workshop, showing different georeferencing workflow scenarios when using Specify and GEOLocate. Video to be posted at the iDigBio Website https://www.idigbio.org
Educational aids or Curricula	Glossary of biology terms to aid users of the iDigBio website and wiki: https://www.idigbio.org/wiki/index.php/Biology_FAQ
Educational aids or Curricula	Glossary of technology terms to aid users of the iDigBio website and wiki: https://www.idigbio.org/wiki/index.php/Technology_FAQ
Audio or Video Products	Web tutorial video showing georeferencing workflow when using Symbiota: http://symbiota.org/tiki/tikimovies/georef1.htm
Audio or Video Products	Gallery of videos from the iDigBio Summit II: http://vimeo.com/album/2163675
Audio or Video Products	Gallery of videos from the iDigBio Georeferencing Workshop: http://vimeo.com/album/2163673 Broader outcomes: Terri Hildebrand (SUU) used these for her Georeferencing Workshop in November 2012 after participating in the October 2012 GWG TTT Workshop and plans to use them in another upcoming workshop.
Educational aids or Curricula	Presentations and video from the iDigBio OCR Hackathon: https://www.idigbio.org/biblio?f%5bsearch%5d=hackathon
Educational aids or Curricula	Presentations from the iDigBio Wet Collections Workshop: https://www.idigbio.org/biblio?f%5bkeyword%5d=126
Educational aids or Curricula	Presentations and video from iConference 2013: https://www.idigbio.org/biblio?f%5bsearch%5d=iConference2013
Protocols	iDigBio Terms of Use Policy: https://www.idigbio.org/content/idigbio-terms-use-policy
Protocols	MISC Phase I report: https://www.idigbio.org/wiki/images/c/c9/Phase_I_Report.pdf
Protocols	iDigBio Service Level Agreement: https://www.idigbio.org/sites/default/files/Service-Level-Agreement-v1.pdf
Protocols	Identifier Guide for Data Providers: https://www.idigbio.org/content/guid-guide-data-providers
Other	NIBA Implementation Plan: https://www.idigbio.org/content/niba-implementation-plan
Protocols	Augmenting OCR Software as a Service (SaaS) Version 0 outline (from Augmenting OCR – BRIT Hackathon): https://www.idigbio.org/wiki/index.php/OCR_SaaS. An initial model for the types of services the AOCR WG would like to have available from iDigBio – so

	that commonly used museum collections software and public participation user interfaces can access these services to enhance accessibility to, usability of and enhancement of the data thereby maximizing the benefit of having a human-in-the-loop.
Protocols	Sample instance of a Rest API for returning OCR output, parsed output with Identifiers (from Augmenting OCR – BRIT Hackathon): https://www.idigbio.org/sites/default/files/workshop-presentations/AOCR-hackathon/Hackathon_InitalResults_Schroeder_final.pptx
Educational aids or Curricula	Information and links on US DNA banks and genetic resource repositories: https://www.idigbio.org/genetic-resources
Other	Public outreach via Facebook: https://www.facebook.com/iDigBio
Audio or Video Products	Video for FLMNH's Explore Research exhibit describing iDigBio and the value of digitizing collections: INSERT WEB LINK

Supporting Files

You may upload pdf files with images, tables, charts, or other graphics in support of this section. You may upload up to 4 pdf files with a maximum file size of 5 MB each.

Filename	Description
Nothing to report	Nothing to report
Nothing to report	Nothing to report
Nothing to report	Nothing to report
Nothing to report	Nothing to report

PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS – WHO HAS BEEN INVOLVED?

Agencies need to know who has worked on the project to gauge and report performance in promoting partnerships and collaborations. For NSF purposes, for separately submitted and awarded collaborative proposals, the PI should report progress on his/her institution's portion of the collaborative effort only. In each of the subsections below, note which collaborators or contacts are involved in data contribution and/or management. If there is nothing significant to report during this reporting period, please enter "Nothing to Report", if applicable.

What individuals have worked on the project?

Provide the following information for: (1) principal investigator(s)/project director(s) (PIs/PDs); and (2) each person who has worked at least one person month per year on the project during the reporting period, regardless of the source of compensation. Note: Participants that contributed greater than 160 hours will receive a notification via email to provide demographic information.

> ***What is the definition of "person-months"?*** *The term "person-months" refers to the effort (amount of time) that PI(s), faculty and other senior personnel will devote to a specific project. The effort is based on the organization's regular academic-year, summer or calendar-year. For example, if the regular schedule is 10 months and 30% effort will be devoted to the project, a total of 3 months should be listed in the academic or calendar-year block (10 months x 30% = 3 months).*
>
> ***How do I calculate the person-months per year committed to the project for completion of the current and pending support section of the proposal?*** *Multiply the percentage of your effort associated with the project times the number of months of your appointment (i.e. 10% of a 9 month AY appointment equals .9 person months; 10% of a 12 month calendar appointment equals 1.2 months). Your employer may have internal policies and procedures that relate specifically to the type of appointment under which you are employed. You should, therefore, confirm with your Sponsored Projects Office that this simplified methodology is consistent with the policy at your organization. Person months shown in the current and pending support section should usually equal the number of months on the NSF proposal budget.*

Name	Lawrence Page
E-Mail	lpage@flmnh.ufl.edu

Most Senior Role	PD/PI
Nearest Whole Person Month Worked	6
Contribution to Project	Director of iDigBio. Overall project management and oversight. Responsible for ensuring that the project delivers value to all downstream users and influences policymakers, as well as ensuring that iDigBio develops and adopts a viable sustainability plan.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	Brunei (5 days); Taiwan (5 days); Panama (5 days)

Name	Jose Fortes
E-Mail	fortes@acis.ufl.edu
Most Senior Role	Co PD/PI
Nearest Whole Person Month Worked	3
Contribution to Project	Director for Computational Activities. Oversight of data integration, support for computational needs and assessment of new technologies and programs. Responsible for the team that will implement and maintain the infrastructure to handle the horizontally-scalable data and media stores for iDigBio specimen data. Responsible for conceptualizing, implementing and supporting tools and processes to support core infrastructure workflow, such as data ingestion, data validation, GUID pattern registration by institution, a GUID resolution service, APIs to provide access to the data store, graphical user interface development, security, development of and adherence to acceptable Service Level Agreements, and the integration of tools that will support research activities and other downstream user needs.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Pamela Soltis
E-Mail	psoltis@flmnh.ufl.edu
Most Senior Role	Co PD/PI
Nearest Whole Person Month Worked	1
Contribution to Project	Director for Research Activities. Liaison to the scientific community and coordination of scientific research activities and needs. Developing workflows to stimulate and facilitate research based on biodiversity collections data.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Bruce MacFadden
E-Mail	bmacfadd@flmnh.ufl.edu
Most Senior Role	Co PD/PI
Nearest Whole Person Month Worked	2
Contribution to Project	Director for Education and Outreach. Oversight of educational and outreach activities. Bruce is also responsible for enhancing the level of

	awareness and expertise related to digitization and related activities within the Paleontology community.
Other funding, other than this award, that supported participation in the project	University of Florida Panama PIRE (0966884)
International collaborations? (list country)	Panama
Foreign travel? (list countries and durations)	Panama (7 days); Columbia (7 days)

Name	Gregory Riccardi
E-Mail	griccardi@fsu.edu
Most Senior Role	Co PD/PI
Nearest Whole Person Month Worked	2
Contribution to Project	iDigBio co-Director for Computational Activities. Oversight of data integration, support for computational needs and assessment of new technologies and programs. Greg leads the FSU team responsible for digitization workflow and tool optimization activities. He is also the subject matter expert in bio/paleo-specimen imaging, and the primary iDigBio resource for conceptualization and implementation of data consistency processes and technologies including GUID assignment, taxonomy identification, collector data sources, etc.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Betty Dunckel
E-Mail	bdunckel@flmnh.ufl.edu
Most Senior Role	Faculty
Nearest Whole Person Month Worked	1
Contribution to Project	Betty Dunckel serves on the iDigBio project's Internal Steering Committee. Betty has expertise in informal science education and outreach, and is a strong supporting resource for Bruce MacFadden's Education and Outreach planning activities.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Marcia Mardis
E-Mail	marcia.mardis@cci.fsu.edu
Most Senior Role	Faculty
Nearest Whole Person Month Worked	1
Contribution to Project	Marcia Mardis is working at FSU with the research and evaluation components of the project to study the social science factors of iDigBio and its interactions with the TCNs. Marcia currently has minimal duties directly related to iDigBio, however her activities will increase in FY2 when she becomes a paid iDigBio staff member.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Renato Figueiredo
E-Mail	renatof@ufl.edu
Most Senior Role	Faculty
Nearest Whole Person Month Worked	3
Contribution to Project	Renato Figueiredo serves as a member of the iDigBio Internal Steering Committee and is a faculty member with the University of Florida's Advanced Computing and Information Systems (ACIS) Laboratory. Renato is primarily responsible for iDigBio appliance architecture decisions and appliance development/maintenance.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Reed Beaman
E-Mail	rbeaman@flmnh.ufl.edu
Most Senior Role	Faculty
Nearest Whole Person Month Worked	1
Contribution to Project	Reed Beaman serves as a member of the iDigBio Internal Steering Committee and is the Informatics Curator at the Florida Museum of Natural History. Reed has worked with the other iDigBio Senior Personnel on IT personnel hiring and IT interoperability/standards discussions.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Austin Mast
E-Mail	amast@bio.fsu.edu
Most Senior Role	Faculty
Nearest Whole Person Month Worked	1
Contribution to Project	Austin Mast serves as a member of the iDigBio Internal Steering Committee. Austin is contributing to the coordination of activities among FSU personnel, he contributed to the development of the FSU-produced digitization ZooKeys publication, he is leading the development of the Citizen Science Working Group, and he is leading the creation of a joint Citizen Science/Education and Outreach Workshop.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Gil Nelson
E-Mail	gnelson@bio.fsu.edu
Most Senior Role	Staff Scientist (doctoral level)
Nearest Whole Person Month Worked	12
Contribution to Project	Gil Nelson serves as a member of the iDigBio Internal Steering Committee and is a digitization process and tool documentation/improvement specialist. He is researching, documenting and evaluating workflows at both mature and new digitization locations. Findings and conclusions are being published as content on the iDigBio website, as well as a formal

	ZooKeys paper. Going forward, Gil will provide virtual and hands-on support to institutions that are implementing new digitization workflows, as well as to implement efficiency improvements in existing institutions. Gil also chairs the Minimum Information Standards and Authority Files Working Group and is coordinating the development of data element expectations and requirements for iDigBio contributors. Also coordinates several planning teams producing and conducting preparation-specific digitization training workshops, chairs several workflow development working groups originated at and a follow up to the DROID workshop (to include workflow working groups for Flat Sheets and packets, Pinned Things in Trays and Drawers, 3D Objects in Spirits in Jars, and 3D Objects in Trays and Drawers), the Biodiversity Informatics Managers working group as co-lead with Joanna McCaffrey, and the International Whole-drawer Digitization Interest Group, co-leading with Nicole Fisher of the Australian National Insect Collection.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	Australia, Germany, United Kingdom, The Netherlands
Foreign travel? (list countries and durations)	None (participation in a symposium in Fiji in July, followed by visits to museums in Sydney and Canberra, Australia, including the Atlas of Living Australia are planned)

Name	Andrea Matsunaga
E-Mail	ammatsun@acis.ufl.edu
Most Senior Role	Staff Scientist (doctoral level)
Nearest Whole Person Month Worked	9
Contribution to Project	Andrea Matsunaga joined the project on September 16th, 2011. Andrea is a research scientist at the University of Florida's Advanced Computing and Information Systems (ACIS) Laboratory. Andrea is working on research aspects of the development of the cloud-based iDigBio cyberinfrastructure, obtaining data sets for testing and inclusion in a demonstrator website, and ensuring that the product is sufficiently scalable and capable of serving the needs of downstream users.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Jason Grabon
E-Mail	jasongrabon@gmail.com
Most Senior Role	Consultant
Nearest Whole Person Month Worked	1
Contribution to Project	Jason Grabon served as a part-time consultant on the iDigBio project while transitioning to the new project manager, David Jennings. Jason no longer works on the project.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	David Jennings

E-Mail	djennings@flmnh.ufl.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	8
Contribution to Project	David Jennings joined iDigBio on August 6, 2012 as the Project Manager, replacing Jason Grabon. Responsible for specific definition of project scope, control of scope creep, coordination of project activities, coordination of interaction with collaborators, identification of key stakeholders and outreach to HUB and TCN stakeholders, budget tracking and management, planning/leading various weekly, monthly and annual meetings, managing day-to-day project activities, risk management, and project reporting.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Joanna McCaffrey
E-Mail	jmccaffrey@flmnh.ufl.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	8
Contribution to Project	Joanna McCaffrey joined iDigBio on August 1, 2012 as the Biodiversity Informatics Manager. Her work focuses on working closely with ACIS to further their understanding of museum collections and related bioinformatics issues, especially usability and product requirements. Joanna contributed to the Digitizing Plant Collections workshop, and is co-planning an iDigBio Symposium at the 2013 SPNHC meeting. She has written various documents to support project clarity of message.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	Brazil
Foreign travel? (list countries and durations)	Panama (3 days); Canada (3 days)

Name	Cathy Bester
E-Mail	cbester@flmnh.ufl.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	12
Contribution to Project	Responsible for navigating FLMNH and UF processes/policies related to ongoing project and office operations; logistics coordination for Participant activities (Workshops, Working Groups, etc.); scheduling; maintaining project records including meeting minutes.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Shari Ellis
E-Mail	shellis@flmnh.ufl.edu
Most Senior Role	Staff Scientist (doctoral level)
Nearest Whole Person Month Worked	3
Contribution to Project	Shari Ellis is the Project Evaluator. She has worked with the project to conduct assessments prior to and following workshops.

Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Jesse Grosso
E-Mail	jgrosso@flmnh.ufl.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	1
Contribution to Project	Responsible for assisting Project Manager and Cathy Bester in logistics related to Participant activities (Workshops, Working Groups, etc.); scheduling; maintaining project records including meeting minutes.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Jill Holliday
E-Mail	jaholliday@ufl.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	2
Contribution to Project	Jill Holliday is the volunteer iDigBio executive editor. She answers questions about contributing content to iDigBio as well as iDigBio's editorial guidelines.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Anna Monfils
E-Mail	anna.monfils@cmich.edu
Most Senior Role	Consultant
Nearest Whole Person Month Worked	3
Contribution to Project	Dr. Anna Monfils of Central Michigan University was awarded the first iDigBio Visiting Scholar Award. Dr. Monfils produced research, online resources, and training materials that enhanced the outreach activities of iDigBio.
Other funding, other than this award, that supported participation in the project	Central Michigan University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Corey Toler-Franklin
E-Mail	ctoler@cs.princeton.edu
Most Senior Role	Consultant
Nearest Whole Person Month Worked	2
Contribution to Project	Dr. Corey Toler-Franklin of UC Davis was awarded the second iDigBio Visiting Scholar Award. Dr. Toler-Franklin introduced new digitization methods to her hosting institutions (in furtherance of ongoing proposals and projects), and then shared this information with the broader Bio-Digitization community.

Other funding, other than this award, that supported participation in the project	University of California, Davis
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Austin Hendy
E-Mail	ahendy@flmnh.ufl.edu
Most Senior Role	Postdoctoral (scholar, fellow, or other postdoctoral position)
Nearest Whole Person Month Worked	8
Contribution to Project	Austin Hendy is a post-doc working with Bruce MacFadden. Austin is in charge of the Fossils in the Cloud initiative which is currently (1) reaching out to fossil clubs, and (2) coordinating an initiative to digitize all the fossils collected from the Panama Canal curated into the collections at the Florida Museum of Natural History (Invertebrate Paleontology, Paleobotany, Vertebrate Paleontology).
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Charlotte Germain-Aubrey
E-Mail	cgermain@ufl.edu
Most Senior Role	Postdoctoral (scholar, fellow, or other postdoctoral position)
Nearest Whole Person Month Worked	8
Contribution to Project	Charlotte Germain-Aubrey is a post-doc working with Pamela Soltis. Charlotte joined iDigBio in August 2012; she is developing workflows to facilitate research that integrates molecular phylogenetics and ecological niche modeling with biodiversity collections data for ultimate integration into the iDigBio cyberinfrastructure. She is pioneering research workflows to integrate data across major clades from separate collections.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Sahale Casebolt
E-Mail	sahale@ufl.edu
Most Senior Role	Graduate Student (research assistant)
Nearest Whole Person Month Worked	2
Contribution to Project	Sahale Casebolt was a Ph.D. student (Department of Geology) in the FLMNH. She was assisting post-doc Austin Hendy to develop online resources for the Fossils in the Cloud project, based upon digital images from collections at the FLMNH (Invertebrate Paleontology, Paleobotany, & Vertebrate Paleontology). Sahale no longer works on the project.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Jiangyan Xu
E-Mail	dennis84225@gmail.com

Most Senior Role	Graduate Student (research assistant)
Nearest Whole Person Month Worked	2
Contribution to Project	Jiangyan Xu was a Ph.D. student with the Advanced Computing and Information Systems (ACIS) Laboratory, but has now graduated. Jiangyan helped with the technology and standards development. He was responsible for the initial design and development of a media ingestion tool for the iDigBio media storage system. Jiangyan no longer works on the project.
Other funding, other than this award, that supported participation in the project	Corporate employment
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Sarfaraz Soomro
E-Mail	sarfarazsoomro@ufl.edu
Most Senior Role	Graduate Student (research assistant)
Nearest Whole Person Month Worked	6
Contribution to Project	Sarfaraz Soomro is a master student with the ACIS Laboratory, advised by Dr. José Fortes. Sarfaraz is assigned to perform research on information systems, and to help with the development of data integration tools under 0.5 FTE.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Grant Godden
E-Mail	g0ddengr@ufl.edu
Most Senior Role	Graduate Student (research assistant)
Nearest Whole Person Month Worked	6
Contribution to Project	Grant Gooden is a Ph.D. student in Biology working with Pamela Soltis. Grant has been gathering information about genetic/tissue collections across the country and is helping to lead efforts to form a network of such collections. He is working with Visiting Scholar Anna Monfils to identify stakeholders for digitized biodiversity data and to develop marketing strategies for supporting digitization and outreach activities long-term. He will also contribute to efforts to integrate data across major clades from separate collections.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Ryan Moraski
E-Mail	rpm225@gmail.com
Most Senior Role	Graduate Student (research assistant)
Nearest Whole Person Month Worked	4
Contribution to Project	Ryan Moraski is a Ph.D. student in Biology working with Pamela Soltis. Ryan is focusing on ways to integrate georeferencing into research-oriented workflows and on applications of georeferenced data for research projects. He is also georeferencing collection data for collections

	at FLMNH and contributing to ecological niche modeling for fishes and Lepidoptera. He will also contribute to efforts to integrate data across major clades from separate collections.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Yonggang Liu
E-Mail	myidpt@gmail.com
Most Senior Role	Graduate Student (research assistant)
Nearest Whole Person Month Worked	3
Contribution to Project	Yonggang Liu is a Ph.D. student with the Advanced Computing and Information Systems (ACIS) Laboratory and joined iDigBio in January 2013. Yonggang is assigned to help with the technology and standards development. He is currently responsible for the design and development of a media ingestion tool that will reliably upload files from the provider's local data source to the iDigBio media storage system.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Katherine Hendy
E-Mail	khendy@flmnh.ufl.edu
Most Senior Role	Graduate Student (research assistant)
Nearest Whole Person Month Worked	1
Contribution to Project	Kassie is a student assistant working with post-doc Austin Hendy. Kassie is assisting in the development of a digital atlas of fossils from Panama to be used by STEM high-school teachers.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Chloe Hough
E-Mail	chough109@gmail.com
Most Senior Role	Undergraduate Student
Nearest Whole Person Month Worked	1
Contribution to Project	Chloe Hough was the iDigBio student assistant. Chloe performed miscellaneous tasks related to iDigBio project administration. Chloe no longer works on the project.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Lunide Orleus
E-Mail	l.orleus1809@ufl.edu
Most Senior Role	Undergraduate Student
Nearest Whole Person Month Worked	1

Contribution to Project	Lunide is a student assistant working with PI Larry Page to investigate digitization workflow issues related to images of alcohol-stored specimens.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Catherine Snyder
E-Mail	cssnyder@ufl.edu
Most Senior Role	Undergraduate Student
Nearest Whole Person Month Worked	1
Contribution to Project	Catherine Snyder is a student assistant working with post-doc Austin Hendy. Catherine is primarily working on specimen photography of material specifically for online education and research resources of the Fossils of Panama digitization project. Her focus is on vertebrate paleontological specimens.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Megan Collins
E-Mail	majicjoy@ufl.edu
Most Senior Role	Undergraduate Student
Nearest Whole Person Month Worked	1
Contribution to Project	Megan was a student assistant working with post-doc Austin Hendy. Megan was primarily working on specimen cataloging and image post-processing of material specifically for online education resources of the Fossils of Panama digitization project. Her focus was on invertebrate paleontological specimens. Megan no longer works on the project.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Kevin Love
E-Mail	klove@flmnh.ufl.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	12
Contribution to Project	Kevin Love provides website development and maintenance, assistance with functional/technical requirement development, and will serve as the 1st level support (user services) for the Specimen Database tool and other technology questions (distinct from digitization user support questions, which are in the domain of Gil Nelson and Deb Paul). Kevin is also taking an increasing role in the development of aspects of the iDigBio Specimen Portal and technical writing (internal documentation, as well as end-user documentation).
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Deborah Paul
E-Mail	dpaul@fsu.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	12
Contribution to Project	Deborah Paul is the project's informatics analyst at FSU. Deb is working closely with Gil Nelson to analyze and document digitization processes and tools. Deb is responsible (Co-chair) for the Augmenting Optical Character Recognition Working Group (AOCR). She is co-chair of the Georeferencing Working Group (GWG) that continues to work on Geo-Referencing training materials and training workshops. Deb contributed to the ZooKeys article, and continues to develop the digitization informational/instructional content on the iDigBio website for Georeferencing and uses for OCR output in concert with the working groups.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Alex Thompson
E-Mail	godfoder@acis.ufl.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	12
Contribution to Project	Alex Thompson is an IT Expert at the University of Florida's Advanced Computing and Information Systems (ACIS) Laboratory. Alex is the ACIS iDigBio Infrastructure engineer and programmer, serving as the primary technical contact for the development and maintenance of all infrastructure services provided by ACIS to the iDigBio project. This originally included the 'social portal' (www.idigbio.org's website, wiki, and project management software implementation). Primary support for the social portal has been handed over to Kevin Love. Alex is currently focused on the provision and maintenance of temporary storage for TCNs, and the implementation of the permanent horizontally-scalable data and media store. Alex will also be the lead on the development of many of the iDigBio APIs and the graphical user interface used by human downstream users to access iDigBio specimen data.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Matthew Collins
E-Mail	mcollins@acis.ufl.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	1
Contribution to Project	Matthew Collins is an IT Expert at the University of Florida's Advanced Computing and Information Systems (ACIS) Laboratory. Matthew is assisting with IT infrastructure design and implementation.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None

Foreign travel? (list countries and durations)	None

Name	Guillaume Jimenez
E-Mail	guillaume.jimenez1@gmail.com
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	12
Contribution to Project	Guillaume Jimenez is an informatics developer for the project at FSU. Full-time member of the iDigBio team since September, he works closely with iDigBio personnel on issues related to integration and the implementation of effective practices learned from the Morphbank project. Guillaume is working closely with the TNRS team to develop a sophisticated strategy for handling taxonomic names in iDigBio's database.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Casey McLaughlin
E-Mail	casey.mclaughlin@cci.fsu.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	1
Contribution to Project	Casey McLaughlin provides technical oversight for the project's IT infrastructure at FSU. His time is allocated approximately 5% to iDigBio activities. His primary current responsibility is to work with Alex Thompson to establish a second site for the data and media storage infrastructure at FSU.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Jeremy Spinks
E-Mail	jspinks@fsu.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	3
Contribution to Project	Jeremy Spinks joined iDigBio in October 2012 to assist in improving the usability of the project website. This has involved reviewing the site, collecting feedback, and proposing architectural and visual changes. The task of implementing the changes is ongoing.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Gregory Traub
E-Mail	gtraub@ufl.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	1
Contribution to Project	Greg Traub joined iDigBio in February 2013 as an IT Expert at the University of Florida's Advanced Computing and Information Systems (ACIS) Laboratory. Greg is assisting with IT infrastructure design and

	implementation.
Other funding, other than this award, that supported participation in the project	University of Florida
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Robert Bruhn
E-Mail	bruhnrp@yahoo.com
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	12
Contribution to Project	Robert Bruhn is adapting the Morphbank v4 system to be a tool for iDigBio users to collect and manage iDigBio specimen and image data. The resulting system will allow users to download information from the iDigBio portal, add additional images and annotations to that information and push the results back to the portal. It will also support the automatic updating of Morphbank copies when iDigBio copies are modified.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

Name	Diane Leiva
E-Mail	dleiva@fsu.edu
Most Senior Role	Other Professional
Nearest Whole Person Month Worked	1
Contribution to Project	Dr. Leiva is helping Dr. Riccardi manage the FSU subproject by working with the FSU administration on budgets, personnel, travel and other expenses. She also participates in planning and evaluation of the FSU activities.
Other funding, other than this award, that supported participation in the project	Florida State University
International collaborations? (list country)	None
Foreign travel? (list countries and durations)	None

What other organizations have been involved as partners?

Describe partner organizations - academic institutions, other nonprofits, industrial or commercial firms, state or local governments, schools or school systems, or other organizations (foreign or domestic) - that have been involved with the project. Types of partner contributions are (identify one or more for each partner):

- *Financial support*
- *Facilities (e.g., project staff use the partner's facilities for project activities)*
- *Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site)*
- *In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff)*
- *Collaborative research (e.g., partner's staff work with project staff on the project)*

Type of Partner Organization	Academic Institution
Name	Florida State University (FSU)
Location	Tallahassee, FL
Partner's contribution to project (identify one or more)	☐Financial support ☒Facilities (e.g., project staff use the partner's facilities for project activities) ☒Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site)

	☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	FSU is an integral partner with UF on the project.

Type of Partner Organization	Academic Institution
Name	University of Illinois at Urbana-Champaign (UI)
Location	Urbana, IL
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Primary TCN institution for "InvertNet: An Integrative Platform for Research on Environmental Change, Species Discovery and Identification".

Type of Partner Organization	Academic Institution
Name	University of Wisconsin-Madison (UW)
Location	Madison, WI
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Primary TCN institution for "North American Lichens and Bryophytes - Sensitive Indicators of Environmental Quality and Change".

Type of Partner Organization	Other Nonprofits
Name	American Museum of Natural History (AMNH)
Location	New York, NY
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Primary TCN institution for "Plants, Herbivores, and Parasitoids: A Model System for the Study of Tri-trophic Associations".

Type of Partner Organization	Other Nonprofits
Name	New York Botanical Garden (NYBG)
Location	Bronx, NY
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	TCN institution for "Plants, Herbivores, and Parasitoids: A Model System for the Study of Tri-trophic Associations".

Type of Partner Organization	Other Nonprofits
Name	Encyclopedia of Life (EOL)
Location	http://eol.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Bob Corrigan and iDigBio IT Staff have initiated communication to understand opportunities for collaboration with data exchange and utilization of EOL web services.

Type of Partner Organization	Other Nonprofits
Name	Atlas of Living Australia (ALA)
Location	http://www.ala.org.au/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	iDigBio IT staff have discussed opportunities to leverage ALA's web services and interfaces. There are questions of scalability and compatibility that have caused iDigBio to delay the commitment of resources toward this activity.

Type of Partner Organization	Other Nonprofits
Name	Global Biodiversity Information Facility (GBIF)
Location	http://www.gbif.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's

	facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	iDigBio informatics and IT staff have been interacting with GBIF staff on the enhancement of software tools for data exchange, on training materials for managing persistent identifiers, and on the development of data models for specimen collections. The Georeferencing Working Group (GWG) is participating with GBIF by testing the early versions of GBIF eLearning materials for non-facilitated (remote) georeferencing training materials. The GWG has also offered videos and presentations from the GWG Train the Trainers workshop to GBIF for their inclusion in the eLearning materials.

Type of Partner Organization	Academic Institution
Name	Valdosta State University (VSU)
Location	Valdosta, GA
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Valdosta State University hosted the Digitizing Plant Collections Workshop in Sep 2012.

Type of Partner Organization	Academic Institution
Name	University of Kansas (KU)
Location	Lawrence, KS
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Primary TCN institution for "Digitizing Fossils to Enable New Syntheses in Biogeography-Creating a PALEONICHES". Also University of Kansas (KU) Biodiversity Institute collaborated on the recent Wet Collections Digitization Workshop in March 2013.

Type of Partner Organization	Academic Institution
Name	North Carolina State University (NCSU)
Location	Raleigh, NC
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available

	to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Primary TCN institution for "The Macrofungi Collection Consortium: Unlocking a Biodiversity for Understanding Biotec Interactions, Nutrient Cycling and Human Affairs".

Type of Partner Organization	Academic Institution
Name	Yale University
Location	New Haven, CT
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Primary TCN institution for "Mobilizing New England Vascular Plant Data to Track Environmental Changes".

Type of Partner Organization	Academic Institution
Name	University of Arizona (UA)
Location	Tucson, AZ
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Primary TCN institution for "Southwest Collections of Arthropods Network (SCAN): A Model for Collections Digitization to Promote Taxonomic and Ecological Research".

Type of Partner Organization	Academic Institution
Name	SALIX (School of Life Sciences, Arizona State University)
Location	Tempe, AZ
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Integral to the success of the Augmenting OCR WG efforts and WG meeting in Oct 2012 and upcoming projects in early 2013.

Type of Partner Organization	Other Nonprofits

Name	Biodiversity Heritage Library (BHL)
Location	http://www.biodiversitylibrary.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Integral to the success of the Augmenting OCR WG efforts and WG meeting in Oct 2012 and upcoming projects in early 2013.

Type of Partner Organization	Other Nonprofits
Name	HERBIS / LABELX
Location	Tucson, AZ
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Integral to the success of the Augmenting OCR WG efforts and WG meeting in Oct 2012 and upcoming projects in early 2013.

Type of Partner Organization	Other Nonprofits
Name	Botanical Research Institute of Texas (BRIT)
Location	Fort Worth, TX
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Integral to the success of the Augmenting OCR WG efforts and WG meeting in Oct 2012 and upcoming projects in early 2013 such as hosting the 1st AOCR WG Hackathon.

Type of Partner Organization	Industrial or Commercial Firms
Name	FromThePage.com
Location	http://fromthepage.com/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available

	to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Integral to the success of the Augmenting OCR WG efforts and WG meeting in Oct 2012 and upcoming projects in early 2013. Ben Brumfield's remote participation in the Public Participation and AOCR workshops has led to collaborative conversations about user-interface open source software development between Michael Denslow and Peter Oboyski from the Notes from Nature Project and Ben Brumfield, and Ben Laurie from Apache software who both work to develop similar products in the genealogy community.

Type of Partner Organization	Other Nonprofits
Name	Botanical Society of America (BSA)
Location	St. Louis, MO
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	The BSA included an iDigBio-funded symposium on digitization in its scientific program and coordinated the facilities and other logistics for the symposium and a workshop held at the Botany 2012 meeting in Columbus, OH. The BSA is also including three symposia sponsored by iDigBio in the 2013 meeting in New Orleans.

Type of Partner Organization	Other Nonprofits
Name	Map of Life
Location	http://www.mappinglife.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Map of Life assembles and integrates different sources of data describing species distributions worldwide. These data include expert species range maps, species occurrence points, ecoregions, and protected areas from providers like IUCN, WWF, GBIF, and more. All of Map or Life's data assets are stored, managed, backed up, and accessed using a hosted CartoDB instance in the cloud.

Type of Partner Organization	Other Nonprofits
Name	American Institute of Biological Sciences (AIBS)
Location	Reston, VA
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's

	facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Collaboration in various activities, including development of Implementation Plan for the Network Integrated Biocollections Alliance and symposium co-hosted by SPNHC on uses of natural history collections data.

Type of Partner Organization	Other Nonprofits
Name	Society for the Preservation of Natural History Collections (SPNHC)
Location	New York, NY
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Collaboration on symposium on uses of natural history collections data held at SPNHC annual meeting in Rapid City, South Dakota on 20 June 2013.

Type of Partner Organization	Other Nonprofits
Name	Natural Science Collections Alliance (NSCA)
Location	Washington, D.C.
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Collaborating on various initiatives to publicize the value of digitized information from natural history collections. Joint sponsorship of symposium on uses of natural history collections data held at annual meeting in Rapid City, South Dakota on 20 June 2013.

Type of Partner Organization	Other Nonprofits
Name	The Apiary Project
Location	http://www.apiaryproject.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other

More detail on partner and contribution	Participation in workshops and working group discussions of software, hardware and OCR.

Type of Partner Organization	Other Nonprofits
Name	Essig Museum of Entomology
Location	University of California, Berkeley
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Outreach for workflow and OCR experiences feedback.

Type of Partner Organization	Other Nonprofits
Name	VertNet
Location	http://vertnet.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Participation in workshops and working group discussions of software, hardware and OCR.

Type of Partner Organization	Other Nonprofits
Name	Morphbank
Location	http://www.morphbank.net/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Currently ongoing – Deb Paul, Guillaume Jimenez and Greg Riccardi are finalizing plans for assuring only vouchered Morphbank specimen records go to iDigBio data portal. As a result of the iDigBio – BiSciCol meeting Morphbank implemented the use of UUIDs to uniquely identify over 600,000 Morphbank digital objects and is working with FSU and TTRS to get their preferred Specimen identifiers stored in Morphbank – for use when exporting data out of Morphbank to unambiguously track use of a specific museum specimen. These will be used by BiSciCol as proof of concept and used by iDigBio as globally unique specimen identifiers.

Type of Partner Organization	Other Nonprofits
Name	GEOLocate
Location	http://www.museum.tulane.edu/geolocate/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Integral to the success of the Georeferencing WG efforts, meetings, and Train-the-Trainers workshops.

Type of Partner Organization	Other Nonprofits
Name	Symbiota
Location	http://symbiota.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Symbiota has made significant advances in support of iDigBio's needs as a result of the recent AOCR hackathon. The result is a more tightly coupled digitization workflow experience for Symbiota users when introducing character recognition of their label data. No longer is it a piecemeal effort to perform OCR and copy paste the results into the data collection system, instead the OCR algorithms of LABELX and SALIX are embedded in Symbiota, allowing for a reduction in time and effort.

Type of Partner Organization	Other Nonprofits
Name	Specify
Location	http://specifysoftware.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Specify is continuing to work closely with iDigBio by developing software support for iDigBio's data requirements. By introducing a globally unique identifier and by creating an export feature specifically tailored to iDigBio, Specify users will have a streamlined path to data ingestion.

Type of Partner Organization	Industrial or Commercial Firms

Name	Xerox
Location	http://www.xerox.com/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	OCR services development.

Type of Partner Organization	Industrial or Commercial Firms
Name	ABBYY
Location	http://www.abbyy.com/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Commercial Optical Character Recognition (OCR) software; member of OCR working group.

Type of Partner Organization	Other Nonprofits
Name	Consortium of Pacific Northwest Herbaria (PNW)
Location	http://www.pnwherbaria.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Outreach for PNW workflow and OCR experiences feedback.

Type of Partner Organization	Other Nonprofits
Name	iSchools Conference 2013
Location	http://iconference.ischools.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available

	to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Working with some members of the planning committee (William Moen, Marcia Mardis) to facilitate iDigBio participation in this conference. Key members (Bryan Heidorn, Jason Best, John Mignault, Amanda Neill, Edward Gilbert, Deborah Paul) of iDigBio's Augmenting OCR Working Group (AOCR WG) wrote a paper for the Digital Libraries session, submitted a poster, held a workshop and hosted an alternative event round-table at the iConference2013 in February 2013 to engage the Information Science community in our digitization efforts.

Type of Partner Organization	Other Nonprofits
Name	CollectionsWeb
Location	http://www.collectionsweb.org/
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☒In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☐Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Deb Paul working with Alan Prather and James Woolley (CollectionsWeb planning committee) to facilitate iDigBio participation in upcoming workshop.

Type of Partner Organization	Other Nonprofits
Name	COLLABIT
Location	COLLABIT@LISTSERV.UTK.EDU
Partner's contribution to project (identify one or more)	☐Financial support ☐Facilities (e.g., project staff use the partner's facilities for project activities) ☐Personnel exchanges (e.g., project staff and/or partner's staff use each other's facilities, work at each other's site) ☐In-kind support (e.g., partner makes software, computers, equipment, etc., available to project staff) ☒Collaborative research (e.g., partner's staff work with project staff on the project) ☐Other
More detail on partner and contribution	Collaboration and technical coordination among the nation's biocenters.

Have other collaborators or contacts been involved?

Some significant collaborators or contacts within the recipient's organization may not be covered by "What people have worked on the project?" Likewise, some significant collaborators or contacts outside the recipient's organization may not be covered under "What other organizations have been involved as partners?"

Yes

IMPACT – WHAT IS THE IMPACT OF THE PROJECT? HOW HAS IT CONTRIBUTED?

INSTRUCTIONS: *This component will be used to describe ways in which the work, findings, and specific products of the project have had an impact during this reporting period. For NSF purposes, include, where appropriate, discussion of data resources and the acquisition of data skills. Include the emergence of new career paths, such as data scientists, or new disciplines. If there is nothing significant to report during this reporting period, please enter "Nothing to Report" if applicable.*

What is the impact on the development of the principal discipline(s) of the project?

Describe how findings, results, techniques that were developed or extended, or other products from the project made an impact or are likely to make an impact on the base of knowledge, theory, and research and/or pedagogical methods in the principal disciplinary field(s) of the project.
8000 characters maximum

iDigBio is developing a national infrastructure that supports the vision of the Advancing Digitization of Biodiversity Collections (ADBC) Program by overseeing implementation of standards and best practices for digitization; building and deploying a customized cloud computing environment for collections; recruiting and training personnel, including underserved groups; engaging the research community, collections community, citizen scientists, and the public through education and outreach activities; and planning for long-term sustainability of the national digitization effort.

iDigBio is working to enable digitization of data from all U.S. biological collections and integrate those data to make them broadly available and useful with shared standards and formats. Ultimately, ADBC will further the discovery and understanding of biological diversity, and iDigBio will engage the research, collections, and education communities in a spirit of collaboration that will open biological research collections to new downstream user communities.

iDigBio is developing a permanent and powerful cloud computing infrastructure to link biological data from collections across the U.S. into a single unified web interface, overcoming the data silos that currently exist across the country. Search and analytical tools will enable users to mine diverse data, such as taxonomy, geographic location, 2- and 3-dimensional images, vocalizations, and molecular resources tied to specimens in collections. These data promote integrative biological research on living and fossil species and provide an immense resource for agricultural science and land use management, and assessing the impacts of climate change, invasive species, and other natural resource management issues.

Key partners in this effort are Thematic Collections Networks (TCNs), which form a national grid of institutions that are digitizing specimens and associated resources. Integration with the greater community of biocollections resources, tools and organizations is critical to accomplishing the grand challenge of digitizing and integrating data from all U.S. collections, large and small.

As an example, iDigBio has strong evidence that our digitization workshops are having an impact beyond just making folks “feel good” about digitization:

- Three participants from the Valdosta herbarium workshop are making good headway a little more than 6 months since the workshop.
    - Don Trisel (Fairmont State, WV) succeeded in securing $20,000 for digitization equipment and accoutrements for his herbarium. He is planning to use some of these funds to create a mobile imaging station for traveling to smaller herbaria within WV to help them image their specimens. He is also providing leadership for a broader WV digitization effort.
    - Becky Dolan (Butler) is now in contact with and readying for uploading data/images to the SERNEC Symbiota portal. This portal was presented at the Valdosta workshop and all workshop participants were given a node in a demo portal and taught how to use it as part of the workshop. Small herbaria, in particular, were encouraged to take advantage of this portal as an easy way to get their data and images online.

- Stephanie Harvey (Georgia Southwestern) has also secured imaging equipment and has contacted Herrick Brown, the SERNEC portal manager, about beginning to move images to the SERNEC portal to make available for remote data entry from her images.

- At the ASB workshop, Gil Nelson was invited to become part of the West Virginia herbarium curator group, and is working with them to plan their state's move toward digitizing their herbaria. Gil also coordinated a meeting between PJ Harmon, one of the WV digitization leaders, and Andy Bentley to facilitate his move Specify. PJ left the conference with an installed instance of Specify, plans to use the SERNEC portal for all WV herbaria, a scheduled meeting within the next few weeks of all WV herbarium curators for the purpose of launching the WV digitization plan, and lots of enthusiasm.

What is the impact on other disciplines?

Describe how the findings, results, or techniques that were developed or improved, or other products from the project made an impact or are likely to make an impact on other disciplines.
8000 characters maximum

Nothing to report.

What is the impact on the development of human resources?

Describe how the project made an impact or is likely to make an impact on human resource development in science, engineering, and technology.
8000 characters maximum

The iDigBio program is currently supporting post-docs, graduate students, and undergraduate students. iDigBio is, therefore, participating in the development and training of the next generation of young scientists who will take the lead in digitized collections in the future and sustain the activities related to iDigBio through their ongoing activities.

At FSU, early discussions are taking place to start a "Big Data" course that would be taught by the Program in Interdisciplinary Computing (PIC http://pic.fsu.edu) and would be open to all majors with no prerequisite courses required. Course content would be from various departments across the university and focus on examples of large datasets, issues with them, hands-on how to clean them, manipulate them, store them & use them for research. Demand for this course has come from departments across FSU and will include input from FSU iDigBio staff (Debbie Paul & others at iDigInfo) that have been talking with PIC (Ken Baldauf) and other FSU staff (Paul Marty, FSU CCI) about the need for these skills for all university students (not just science majors).

iDigBio collects voluntary anonymous demographic data in its post-workshop surveys to track participation.

iDigBio awarded the first (2012) Visiting Scholar Award to Dr. Anna Monfils of Central Michigan University. Dr. Monfils will produce research, online resources and training materials that will enhance the outreach activities of iDigBio.

Dr. Anna K. Monfils, the iDigBio 2012 Visiting Scholar, visited the HUB from March 12-22, 2013. During her stay in Gainesville, she gave a seminar entitled "Organizing, Executing and Utilizing a Digitized Regional Herbarium" where she gave an overview of her visiting scholar work consisting of three proposed foci: 1) advancing digitization efforts at the Central Michigan University Herbarium (CMC), 2) conducting a workshop to expand digitization efforts for regional collections in MI and the Great Lakes, and 3) developing an interactive, web-based, educational module integrating field, virtual and museum experiences. Dr. Monfils discussed the unique challenges, marked progress, and lessons learned during the digitization of the CMC regional collection, including highlights and deliverables from the Small Collections Herbarium Workshop. Dr. Monfils also introduced an educational module utilizing digitized herbarium records, place-based learning, and TourGuide, an online tool for creating interactive virtual tours. In addition to the proposed foci, Dr. Monfils discussed "value added" items that developed out of her iDigBio Visiting Scholar opportunity, including significant institutional

investment in the CMC collection, a collaborative proposal submitted to the Hanes Foundation to digitize 11 regional collections in Michigan, a partnership with iDigBio to assess student learning in collections digitization, participation in a writing workshop to produce a manuscript on the value of regional collections, and iDigBio sponsorship of a BOTANY 2013 Symposium on broadening participation in the botanical sciences.

iDigBio awarded the second (2013) Visiting Scholar position to Dr. Corey Toler-Franklin of the University of California at Davis. The overall goal of her work will be to introduce new digitization methods to her hosting institutions (in furtherance of ongoing proposals and projects), and then share this information with the broader Bio-Digitization community.

Dr. Corey Toler-Franklin, the iDigBio 2013 Visiting Scholar, visited the HUB from February 17 thru March 2, 2013. During her stay in Gainesville, she gave a seminar entitled “Data Capture and Analysis of Artifacts and Biological Specimens Using Multi-Channel Images”, where she gave an overview of digital imaging techniques and low-cost acquisition devices to show how they can be combined in novel ways that improve overall digitization efficiency and robustness. Dr. Toler-Franklin showed how an acquisition and reassembly system incorporating high-resolution surface and subsurface information from multi-channel images is currently being used to document and visualize archaeological artifacts and biological specimens.

What is the impact on physical resources that form infrastructure?

Describe ways, if any, in which the project made an impact, or is likely to make an impact, on physical resources that form infrastructure, including physical resources such as facilities, laboratories, or instruments.
8000 characters maximum

The iDigBio cyberinfrastructure team is following a formula that balances strategic planning with the agility to meet new challenges, short-term project needs, and enhanced/clarified specifications in order to meet the following objectives: (1) Implement a horizontally scalable cloud infrastructure for object (media) storage; (2) Implement a horizontally scalable cloud infrastructure for text (data/metadata) storage; (3) Implement infrastructure to enable hosting for the web services/websites of strategic partners; (4) Deploy iDigBio appliances and services via multiple channels (e.g., web services, locally-run virtual machines, Infrastructure-as-a-Service cloud implementations) to enhance, simplify and/or improve activities completed by data providers and data consumers; (5) Implement a Graphical User Interface (GUI) to enable end-users, including data contributors and data consumers, access to search/visualize/download text and media data from the cloud infrastructure; and (6) Implement a comprehensive authentication and access control system to enable data tracking and a cohesive user experience among the systems listed above, as well as the iDigBio collaboration and communication website (composed of Drupal, Redmine, and MediaWiki installations).

What is the impact on institutional resources that form infrastructure?

Describe ways, if any, in which the project made an impact, or is likely to make an impact, on institutional resources that form infrastructure.
8000 characters maximum

The iDigBio cyberinfrastructure team is following a formula that balances strategic planning with the agility to meet new challenges, short-term project needs, and enhanced/clarified specifications in order to meet the following objectives: (1) Implement a horizontally scalable cloud infrastructure for object (media) storage; (2) Implement a horizontally scalable cloud infrastructure for text (data/metadata) storage; (3) Implement infrastructure to enable hosting for the web services/websites of strategic partners; (4) Deploy iDigBio appliances and services via multiple channels (e.g., web services, locally-run virtual machines, Infrastructure-as-a-Service cloud implementations) to enhance, simplify and/or improve activities completed by data providers and data consumers; (5) Implement a Graphical User Interface (GUI) to enable end-users, including data contributors and data consumers, access to search/visualize/download text and media data from the cloud infrastructure; and (6) Implement a comprehensive authentication and access control system to enable data tracking and a cohesive user experience among the systems listed above, as well as the iDigBio collaboration and communication website (composed of Drupal, Redmine, and MediaWiki installations).

What is the impact on information resources that form infrastructure?

Describe ways, if any, in which the project made an impact, or is likely to make an impact, on information resources that form infrastructure.
8000 characters maximum

iDigBio digitization experts are pursuing a process of information gathering and documentation based upon both grounded theory and business process modeling/management, including reaching out beyond the natural history collections community for digitization expertise from other fields, to achieve the following objectives: (1) Engage the collections community to market and build interest in utilizing iDigBio services, including both data access services and collaboration tools; (2) Obtain preliminary data sets for ingestion, storage, testing and exposure via the iDigBio specimen portal; (3) Establish Minimum Information Standards and data fitness for use parameters; (4) Optimize digitization workflows; (5) Conduct digitization training and produce online training materials; (6) Enhance and broaden exposure to digitization tools and resources such as Georeferencing, Augmenting Optical Character Recognition (AOCR), Natural Language Processing (NLP), Authority Files, optimized digitization workflows, and crowdsourcing; (7) Evaluate, document and publish analysis related to digitization hardware and software tools; (8) Identify significant technological gaps in digitization capabilities that require additional resource investment in order to ensure the success of Advancing Digitization of Biodiversity Collections (ADBC), (9) Conduct activities as required to improve Thematic Collections Network (TCN) efficiencies, resolve TCN problems, remove roadblocks; and (10) Provide user services related to digitization questions from the community.

What is the impact on technology transfer?

Describe ways in which the project made an impact, or is likely to make an impact, on commercial technology or public use.
8000 characters maximum

iDigBio Education and Outreach activities are focused on general digitization curricula development, stakeholder identification, and public speaking engagements to achieve the following objectives: (1) Identify target audiences, including university students, downstream user groups and other stakeholders, and assess their needs; (2) Engage the general public through informational resources, compelling deliverables, and opportunities to participate that highlight the importance of biodiversity collections and digitization; (3) Develop educational resources for K-12 students related to digitization and biodiversity; (4) Foster project awareness within the professional community; and (5) Measure the geographic distribution of impact and success of intended learning outcomes.

Existing relationships between iDigBio and the collections/research community provide an informal mechanism for iDigBio to achieve the following objectives: (1) Engage the research community to market and build interest in using iDigBio services, including both data access services and collaboration tools; (2) Seek opportunities for integration of iDigBio specimen data and data access services with key data and research services from other projects and organizations; and (3) Produce detailed Use Cases for research applications of specimen data, and provide these Use Cases to the cyberinfrastructure team.

What is the impact on society beyond science and technology?

Describe how results from the project made an impact, or are likely to make an impact, beyond the bounds of science, engineering, and the academic world.
8000 characters maximum

Integrated Digitized Biocollections (iDigBio) is the national resource for digitized information about existing, vouchered natural history collections within the context established by the community strategic plan for the Network Integrated Biocollections Alliance (NIBA) and is supported through funds from the NSF program Advancing Digitization of Biodiversity Collections (ADBC). As such, iDigBio serves as the administrative home for the national digitization effort; fosters partnerships and innovations; facilitates the determination and dissemination of digitization practices and workflows; establishes integration and interconnectivity among the data generated by collection digitization projects; and promotes

the uses of biological/paleontological collections data by the scientific community and stakeholders including government agencies, educational institutions, non-governmental organizations (NGOs), and other national and international entities to benefit science and society through enhanced research, educational, and outreach activities. iDigBio provides these services to all stakeholders with clarity, simplicity, transparency, intuitive methodology, and intuitive design.

CHANGES/ PROBLEMS

INSTRUCTIONS: *The PI is reminded that the grantee is required to obtain prior written approval from the awarding agency grants official whenever there are significant changes in the project or its direction. See agency specific instructions for submission of these requests. If not previously reported in writing to the agency through other mechanisms, provide the following additional information or state, "Nothing to Report", if applicable.*

Notifications and Request: *For more information on Grantee Notifications to and Requests for approval from the National Science Foundation, please visit the Notifications and Requests section in FastLane or refer to Exhibit II-1 of the Award and Administration Guide (AAG).*

Changes in approach and reasons for change

8000 characters maximum

Nothing to report.

Actual or Anticipated problems or delays and actions or plans to resolve them

8000 characters maximum

Nothing to report.

Changes that have significant impact on expenditures

8000 characters maximum

Nothing to report.

Significant changes in use or care of human subjects

8000 characters maximum

Nothing to report.

Significant changes in use or care of vertebrate animals

8000 characters maximum

Nothing to report.

Significant changes in use or care of biohazards

8000 characters maximum

Nothing to report.

SPECIAL REQUIREMENTS

Respond to any special reporting requirements specified in the award terms and conditions, as well as any award specific reporting requirements.
8000 characters maximum

Nothing to report.

Supporting Files

You may upload pdf files with images, tables, charts, or other graphics in support of this section. You may upload up to 4 pdf files with a maximum file size of 5 MB each.

Filename	Description
Nothing to report	Nothing to report
Nothing to report	Nothing to report
Nothing to report	Nothing to report
Nothing to report	Nothing to report

TABLE OF CONTENTS

Table of Contents....1

Sponsored Workshop Tracking....1

Sponsored Workshop Demographics (9/16/2012 thru 4/23/2013)....7

Year 3 Revised Budgets....8

Website Usage Statistics (4/22/2012 thru 3/17/2013)....8

eNewsletter Statistics (4/22/2012 thru 3/17/2013)....10

Collaboration Software Statistics (4/22/2012 thru 3/17/2013)....11

Social Media Statistics (4/20/2012 thru 3/21/2013)....11

SPONSORED WORKSHOP TRACKING

Specimen Digitization Tools and Practices Workshop at Botany 2012 (Columbus, OH): 7/12/2012

Mary Barkworth (Utah State University)
Bethany Brown (Morton Arboretum)
Herrick Hermann Klaus Brown (South Carolina DNR)
Nancy Cowden (Lynchburg College)
Rodney David Dever(West Virginia University Herbarium)
Alexandra Christine DiNicola (College of Idaho)
Rebecca Dolan (Butler University)
Tim Evans (Grand Valley State University)
Donna Ford-Werntz, (West Virginia University)
Emily Laura Gillespie (Wake Forest University)
Suzann Goldberg (AMNH)
Alyssa Janning (University of Arizona)
Eric Knox (Indiana University)
Taylor Michael Lowrey (Central Michigan University)
Anna Kirsten Monfils (Central Michigan University)
Angela Rein (Oklahoma State University)
Tharangamala Samarakoon (University of Southern Mississippi)
Michael B. Thomas (University of Hawaii)
Lisa Wallace (Mississippi State University)
Barbara Whitlock (University of Miami)
Zachary Campau (JSTOR Plant Science)
Alexander Krings (North Carolina State University)
Andrea Weeks (George Mason University)
Brent Mishler (University of California, Berkeley)
Jimmy Triplett (Jacksonville State University)
Liz Hermsen (Cornell University)
Eric Ribbens (Western Illinois University)
Linda S. Ford (Harvard University)
Steve Ginzbarg (University of Alabama)
Jennifer Ramp Neale (Denver Botanic Gardens)
Rusty Russell (Smithsonian)
Jon Hendricks (San Jose State University)
Jordan Metzgar (University of Alaska)
Ken Cameron (University of Wisconsin)
Lauren Spitz (Rutgers University)
Mark Allen Wetter (University of Wisconsin)
Maggie Whitson (Northern Kentucky University)
Rich Rabeler (University of Michigan)
Scott LaGreca (Cornell University)
Selena Smith (University of Michigan)
Alycia Stigall (Ohio University)
Hannah Brame (Ohio University)
Tatyana Livshultz (Academy of Natural Sciences of Drexel University)
Don Trisel (Fairmont State University)
Charles Wentzel (Ohio State University)
William Schmidt (University of Louisiana)
Mark Fishbein (Oklahoma State University)
Mark Gabel (Black Hills State University)
Andrew Bentley (University of Kansas)
Corinna Gries (University of Wisconsin)

iDigBio is funded by a grant from the National Science Foundation's Advancing Digitization of Biodiversity Collections Program (#EF1115210)

Stinger Guala (USGS)
James Macklin (Harvard University)
Austin Mast (Florida State University)
Zack Murrell (Appalachian State University)
Robert Francis Cox Naczi (NYBG)
Pam Soltis (University of Florida)
Patrick Sweeney (Yale University)
Barbara Mary Thiers (NYBG)
Jason Heike Best (Botanical Research Institute of Texas)
Rod Eastwood (Harvard University)
Larry Gall (Yale University)
Michael Giddens (SilverBiology)
Edward Erik Gilbert (Arizona State University)
Patrick Bryan Heidorn (University of Arizona)
Naim Matasci (iPlant)
Henri Michiels (French National Museum of Natural History)
Gil Nelson (Florida State University)
Deb Paul (Florida State University)
Nelson Rios (Tulane University)
Katja Schulz (Smithsonian)
Judith E. Skog (National Science Foundation)

Plant Digitization Workshop at Valdosta State University (Valdosta, GA): 9/17/2012 – 9/18/2012

Dorothy Jean Allard (University of Vermont)
Katherine Gould Mathews (Western Carolina University)
Melissa Islam (Denver Botanic Gardens)
Bonnie Beth Amos (Angelo State Natural History Collections)
Don Trisel (Fairmont State University)
Lisa Ann Kelly (University of North Carolina Pembroke)
Andrew N. Miller (Illinois Natural History Survey)
Constance Ann Kelsey (University of Utah)
Laurie Hannah (University of California - Santa Barbara)
Alan Harvey (Georgia Southern University)
Janet W. Bala (Idaho Museum of Natural History)
Stephanie Gail Harvey (Georgia Southwestern State University)
Ashley Morris (Middle Tennessee State University)
Dawn R. Roberts (Chicago Academy of Sciences/Peggy Notebaert Nature Museum)
Lucile Marie McCook (University of Mississippi)
Audrey D. Clark (University of Vermont)
Melanie A. Link-Perez (Armstrong Atlantic State University)
Sule O. Fischl (Newark Museum (NJ))
Jimmy Keith Triplett II (Jacksonville State University (AL))
Rebecca Dolan (Butler University)
Mac Alford (University of Southern Mississippi)
Lawrence O. Schmidt (University of Wyoming)
Cassandra Quave (Emory University)
Mike Bevans (NYBG)
Herrick Brown (SC Dept of Natural Resources)
Richard Carter (Valdosta State University)

Public Participation in Digitization Workshop (Gainesville, FL): 9/28/2012 – 9/29/2012

Alison Young (California Academy of Sciences)
Andrea Wiggins (Syracuse University)
Andrew Hill (Vizzualtiy)
Austin Hendy (University of Florida)
Barbara Thiers (New York Botanical Garden)
Bill Watson (Smithsonian Institution)
David Bonter (Cornell University)
Edward Gilbert (Symbiota)
Elizabeth Martin (USGS)
Greg Newman (Colorado State University)
Jason Best (Botanical Research Institute of Texas)
Jessica Zelt (USGS)
Jim Beach (University of Kansas)
John Carroll Brinda (Missouri Botanical Garden)
Jonathan Hendricks (San Jose State University)
Julie Speelman (Purdue University)
Katja Seltmann (American Museum of Natural History)
Melody Basham (Arizona State University)
Michael Denslow (Appalachian State University)
Michael Giddens (SilverBiology)
Nathan Wilson (Encyclopedia of Life)
Nelson Rios (Tulane University)
Patrick Sweeney (Yale University)
Paul Flemons (Australian Museum)
Richard Primack (Boston University)
Sarah Newman (National Ecological Observatory Network, Inc.)
Thomas Nash (University of Wisconsin-Madison)
Anne Maglia (NSF)

OCR Workshop (Gainesville, FL): 10/1/2012 – 10/2/2012

Stephen D Gottschalk (New York Botanical Garden)
Edward Erik Gilbert (Arizona State University)
Jason Heike Best (Botanical Research Institute of Texas)
Robert Anglin (University of Wisconsin)
Kimberly A. Watson (New York Botanical Garden)
Patrick Bryan Heidorn (University of Arizona)
Peter Thomas Lang (Abbyy)
Quanjin Zhang (University of Arizona)
Daryl Lafferty (Salix)
Karl Heinz Steinke (Germany - Hochschule Hannover - University of Applied Sciences and Arts)
Sean Murphy (Botanical Research Institute of Texas)
Peter Oboyski (Essig Museum, Berkeley)
Gregory Riccardi (FSU)
Deborah L. Paul (FSU)
Reed Beaman (FLMNH/UF)
Alex Thompson (ACIS/UF)
Andrea Matsunaga (ACIS/UF)

Georeferencing Train-The-Trainer (TTT) Workshop (Gainesville, FL): 10/8/2012 – 10/12/2012

Brendan Morris (Illinois Natural History Survey)
Jennifer Zaspel (UW-Oshkosh)
Rita Velez (South Dakota State University)
Una Farrell (University of Kansas Biodiversity Institute)
Nina Abdollahian (San Jose State University)
Hannah-Maria Rachel Brame (Ohio University)
Donna Shannon Asencio (New York Botanical Garden)
Benito Santos Lorenzo (New York Botanical Garden)
Stephen D. Gottschalk (New York Botanical Garden)
Julianne E. Smith (Wisconsin State Herbarium)
Kevin S. Cummings (Illinois Natural History Survey)
Mark A. Wetter (University of Wisconsin)
Clare Loughran (UC Davis/Jepson Herbarium)
Kimberly A. Watson (New York Botanical Garden)
Dmitry A. Dmitriev (Illinois Natural History Survey)
Jessica Anne Utrup (Yale Peabody Museum)
Dorothy Allard (Pringle Herbarium Burlington, University of Vermont)
Margaret Landis (University of Oklahoma)
Liath Appleton (Texas Natural Science Center)
Angelika Nelson (Ohio State University)
David Bloom (University of California, Berkeley)
Nelson Rios (Tulane University)
Carol Spencer (University of California, Berkeley)
John Wieczorek (University of California, Berkeley)
Gil Nelson (Florida State University - iDigBio)
Deborah L. Paul (Florida State University - iDigBio)
Jacob Higgins (Northern Arizona University)
Emily Aker (Harvard University)
Terri Hildebrand (Southern Utah University)
Ryan Moraski (UF/FLMNH)

Summit II (Gainesville, FL): 10/23/2012 – 10/24/2012

Bruce Lieberman (University of Kansas)
Jim Beach (University of Kansas)
Rodney Spears (University of Kansas)
Robert Naczi (New York Botanical Garden)
Christiane Weirauch (University of California, Riverside)
Katja Seltmann (American Museum of Natural History)
Randall Schuh (American Museum of Natural History)
Barbara Thiers (New York Botanical Garden)
Andrew Miller (Illinois Natural History Survey)
Neil Cobb (Northern Arizona University)
Ed Gilbert (Arizona State University)
Patrick Sweeney (Yale University)
Chuck Davis (Harvard University)
Paul Morris (Harvard University)
Christopher Dietrich (Illinois Natural History Survey)
Omar Sobh (Illinois Natural History Survey)
Kristin Simpson (University of Missouri)
Corinna Gries (University of Wisconsin)
Thomas Nash III (University of Wisconsin)
Lucile McCook (Mississippi Herbaria Consortium)
David Bloom (University of California, Berkeley)
Brent Mishler (University of California, Berkeley)
Judy Skog (National Science Foundation)
Anna Monfils (iDigBio Visiting Scholar)
Matthew Smith (University of Florida)
Larry Page (iDigBio PI)
Bruce MacFadden (iDigBio PI)
Pam Soltis (iDigBio PI)
Jose Fortes (iDigBio PI)
David Jennings (iDigBio Project Manager)
Joanna McCaffrey (iDigBio Biodiversity Informatics Manager)
Kevin Love (iDigBio IT Expert)
Cathy Bester (iDigBio Project Asst)
Alex Thompson (UF/ACIS)
Andrea Matsunaga (UF/ACIS)

iDigBio is funded by a grant from the National Science Foundation's Advancing Digitization of Biodiversity Collections Program (#EF1115210)

Matt Collins (UF/ACIS)
Jill Holliday (UF/FLMNH)
Shari Ellis (UF/FLMNH)
Betty Dunckel (UF/FLMNH)
Reed Beaman (UF/FLMNH)
Elizabeth Martin (U.S. Geological Survey)
Austin Hendy (UF/FLMNH Post Doc)
Sahale Casebolt (UF/FLMNH Grad Student)
Charlotte Germain-Aubrey (UF/FLMNH Post Doc)
Grant Godden (UF/FLMNH Grad Student)
Ryan Moraski (UF/FLMNH Grad Student)
Jyangyan Xu (ACIS Grad Student)
Sarfaraz Soomro (ACIS Grad Student)
Gregory Riccardi (iDigBio PI)
Casey McLaughlin (iDigBio/Florida State University)
Marcia Mardis (iDigBio/Florida State University)
Guillaume Jimenez (iDigBio/Florida State University)
Deborah Paul (iDigBio/Florida State University)
Gil Nelson (iDigBio/Florida State University)
Austin Mast (iDigBio/Florida State University)

AOCR Hackathon at iConference (Ft Worth, TX): 2/11/2013 – 2/15/2013

Jason Heike Best (Botanical Research Institute of Texas)
Sean Murphy (Botanical Research Institute of Texas)
Ed Gilbert (Arizona State University)
Stephen Gottschalk (New York Botanical Garden)
Phuc Xuan Nguyen (University of California, San Diego)
Daryl Lafferty (SALIX)
Scott Thomas Bates (University of Colorado)
Bryan Heidorn (University of Arizona)
Paul Schroeder (Scioqualis.com)
Robin Schroeder (Arizona State University)
Ben William Brumfield (Independent software consultant)
Amanda Neill (Botanical Research Institute of Texas)
Qianjin Zhang (University of Arizona)
Debbie Paul (Florida State University, iDigBio)
Dmitry Y. Mozzherin (Marine Biological Laboratory)
Dmitry Dmitriev (Illinois Natural History Survey)
John Pickering (University of Georgia)
Tianli Mo (University of Hawaii)
Alex Thompson (University of Florida, iDigBio)
Kevin Love (University of Florida, iDigBio)
Robert Anglin (University of Wisconsin)
John Mignault (New York Botanical Garden)
Michael Giddens (Silver Biology) - remote
Steven Chong (University of Arizona) - remote
Ryan Farrell (University of California, Berkeley) - remote

Wet Collection Digitization Workshop (Lawrence, KS): 3/4/2013 – 3/7/2013

Juan Andres Lopez-Pulido (University of Alaska Fairbanks)
Jennifer Thorsch (University of California, Santa Barbara)
Christina Piotrowski (California Academy of Sciences)
Adam Cohen (Texas Natural History Collections, University of Texas)
Mariko Kageyama (University of Colorado Museum of Natural History)
Teresa J. Mayfield (Perot Museum of Nature and Science (TX))
Gregory Watkins-Colwell (Yale Peabody Museum of Natural History)
Jessa Lee Watters (Sam Noble Museum, University of Oklahoma)
Christopher A. Taylor (Illinois Natural History Survey)
Zachary Seth Randall (Florida Museum of Natural History/University of Florida)
Randall Singer (Florida Museum of Natural History/University of Florida)
Mark O'Brien (University of Michigan)
Trina Roberts (University of Iowa)
John P. Friel (Cornell University)
Wesley Rulon Skidmore (Brigham Young University)
Jennifer Zaspel (Purdue University)
Laura A. Halverson Monahan (University of Wisconsin)
Sangmi Lee (Arizona State University)
Angela Riedel (Central Michigan University)
Alfred William Thomson (Florida Fish and Wildlife Conservation Commission)
Christine Johnson (American Museum of Natural History)
Sarah Krott Huber (Virginia Institute of Marine Science)
Brian Sidlauskas (Oregon State University)
Jeremy John Wright (New York State Museum)
Mahmoud Kamal Aboukheir (University of Puerto Rico)
Rebekah Baquiran (Field Museum)
Jacek Tomasz Giermakowski (University of New Mexico)
Christy Bills (Natural History Museum of Utah)
Gabriela Mottesi Hogue (North Carolina Museum of Natural Sciences)
Sohath Z. Yusseff-Vanegas (University of Vermont)
Marc Kibbey (Ohio State University Museum of Biological Diversity)
Sally Bjork (University of Michigan)

Kirsten Nicholson (Central Michigan University)
Chris Phillips (Illinois Natural History Survey)
Joan Herrera (Florida Fish and Wildlife Conservation Commission)
Hank Bart (Tulane University)
Caroline Chaboo (University of Kansas)
Sandra Lee Brantley (University of New Mexico)
Cindy Opitz (University of Iowa)
Vladamir Blagoderov (Natural History Museum London)
Roy McGill Nelson (Florida State University/iDigBio)
Andrew Bentley (University of Kansas)
Nelson Rios (Tulane University)
Rob Robins (Florida Museum of Natural History/University of Florida)
Deborah L. Paul (Florida State University/iDigBio)
Andrew Short (University of Kansas)
Mark Sabaj Perez (Academy of Natural Sciences)
Edward Erik Gilbert (Arizona State University)
Kevin Love (Florida Museum of Natural History/University of Florida)
Kyle R. Luckenbill (Academy of Natural Sciences)

Georeferencing Working Group Materials Development Workshop (Gainesville, FL): 3/20/2013 – 3/21/2013

David Bloom (University of California, Berkeley)
Carol Spencer (University of California, Berkeley)
John Wieczorek (University of California, Berkeley)
Nelson Rios (Tulane University)
Deb Paul (Florida State University/iDigBio)

Symposium at the 2013 Association of Southeastern Biologists (ASB) Meeting (Charleston, WV): 4/12/2013

Ashley Morris (Middle Tennessee State University)
George Johnson (Arkansas Tech University)
Conley K. McMullen (James Madison University)
Brad Ruhfel (Eastern Kentucky University)
Bryan Cody (North Carolina State University)
Tanja Schuster (University of Maryland)
Emily Gillespie (Marshall University)
Katharine Gregg (West Virginia Wesleyan College)
John L. Carr (University of Louisiana at Monroe)
Melba Horton (University of North Georgia)
Michael Gangloff (Appalachian State University)
Christina Byrd (Marshall University)
Kunsiri Grubbs (Winthrop University)
Donna Ford-Werntz (West Virginia University)
Ron Jones (Eastern Kentucky University)
Roland P. Roberts (Towson University)
Mark Schlueter (Georgia Gwinnett College)
Nick Stewart (Georgia Gwinnett College)
Andrew Bentley (University of Kansas)
Chris Dietrich (Illinois Natural History Survey)
Zack Murrell (Appalachian State University)
Kim Watson (New York Botanical Garden)
Hank Bart, Jr. (Tulane University)

Entomology Digitization Workshop (Chicago, IL): 4/23/2013 – 4/26/2013

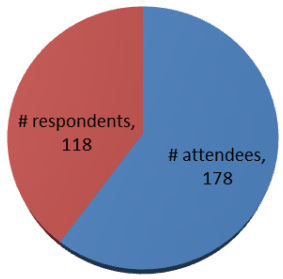
Andrew Robert Deans (Frost Entomological Museum, Penn State)
Brian Wiegmann (North Carolina State University)
Curtis Jay Schmidt (Sternberg Museum of Natural History, Fort Hays State University)
Derek Scott Sikes (University of Alaska Museum)
Eric G. Chapman (University of Kentucky)
Frank Thorsten Krell (Denver Museum of Nature & Science)
Ilia Rochlin (Suffolk County Vector Control)
James W. Fetzner Jr. (Carnegie Museum of Natural History
Jason Weintraub (Academy of Natural Sciences of Drexel University)
Jennifer C. Thomas (University of Kansas)
John Sanford Strazanac (West Virginia University)
Joseph McHugh (University of Georgia/GA Museum of Natural History)
Julia B. Colby (Milwaukee Public Museum)
Lawrence O. Schmidt (University of Wyoming)
Michael Ivie (x2) (Montana Entomology Collection, Montana State University)
Paul Edward Skelley (Florida State Collection of Arthropods)
Peter T. Oboyski (Essig Museum, University of California)

Rachel Ann MaKarrall (University of Minnesota Duluth)
Rodney Gordon Eastwood (Museum of Comparative Zoology, Harvard University)
Signe Valentinsson (American Museum of Natural History)
Tamaki Yuri (Sam Noble Museum of Natural History, University of Oklahoma)
Thomas Harris Atkinson (Texas Natural Science Center)
Victoria Moseley Bayless (Louisiana State Arthropod Museum)
Julie M. Shapiro (Harvard University)
Julie Speelman (Purdue)
Brian Stucky (University of Colorado, Boulder)
David Raila (Illinois Natural History Survey)
Paul Flemons (Australian Museum of Natural History)
Brian Fisher (California Academy of Sciences)
Lawrence Gall (Yale)
Chris Dietrich (Illinois Natural History Survey)
Roy Larimer (VisionaryDigital.com)
Andrew Bentley (University of Kansas)
Edward Gilbert (Arizona State University)
Vladimir Blagoderov (Natural History Museum, London)
Nicole Fisher (CSIRO - Australia)
Deb Paul (Florida State University/iDigBio)
Kevin Love (University of Florida/iDigBio)
Joanna McCaffrey (University of Florida/iDigBio)
Gil Nelson (Florida State University/iDigBio)

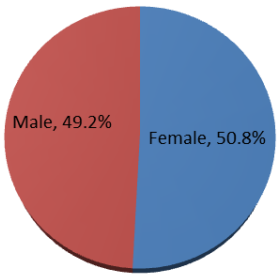
Symposium at the 2013 Society for Preservation of Natural History Collections (SPNHC) Meeting (Rapid City, SD): 6/20/2013

Bruce MacFadden (University of Florida/iDigBio)
Joanna McCaffrey (University of Florida/iDigBio)
Kevin Love (University of Florida/iDigBio)
Larry Page (University of Florida/iDigBio)
Pam Soltis (University of Florida/iDigBio)
Gil Nelson (Florida State University/iDigBio)
Deb Paul (Florida State University/iDigBio)
Rob Gropp (Natural Science Collections Alliance/American Institute of Biological Sciences)
Barbara Thiers (New York Botanical Garden)
Hank Bart, Jr. (Tulane University)
Stinger Guala (US Geological Survey)
Elizabeth Martín (US Geological Survey)
Michael Denslow (Appalachian State/NEON)
Richard Primack (Boston University)
Amanda Neill (Botanical Research Institute of Texas)
Peter Paul van Dijk (Conservation International)
Greg Stull (Florida Museum of Natural History)
Jennifer Dean (New York Heritage Program)
Ixchel Faniel (Online Computer Library Center)
Pat Holroyd (University of California, Berkeley)
Una Farrell (University of Kansas)

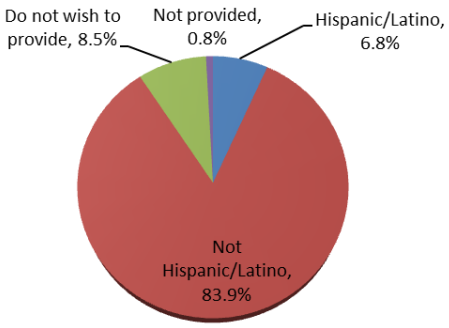
SPONSORED WORKSHOP DEMOGRAPHICS (9/16/2012 THRU 4/23/2013)



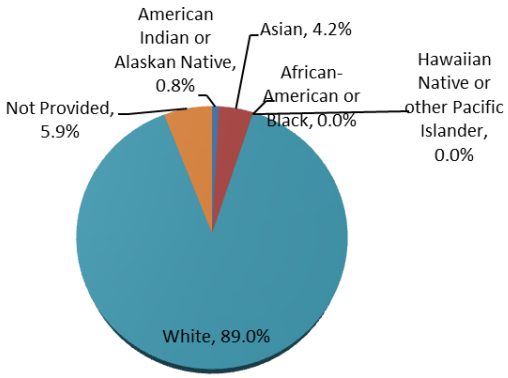
Average Response Rate = 66.3%



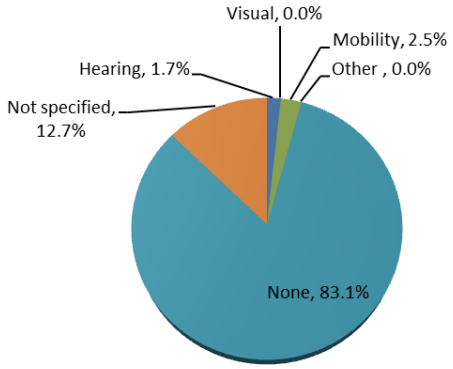
Gender



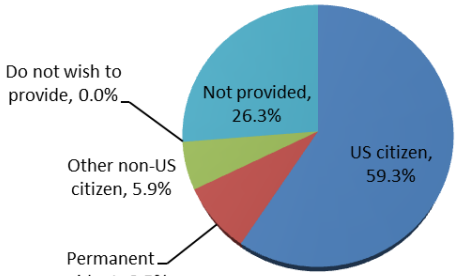
Cultural Background



Ethnicity/Race



Disability



Citizenship

iDigBio is funded by a grant from the National Science Foundation's Advancing Digitization of Biodiversity Collections Program (#EF1115210)

Year 3 Revised Budgets

UF

TBD

FSU

TBD

Website Usage Statistics (4/22/2012 thru 3/17/2013)

General Statistics

Page Views	66,321
Unique Visitors	8,568
Registered Users	218

Traffic Statistics by New vs. Returning User

Visitor Type	Visits	Pages / Visit	Avg. Visit Duration	Bounce Rate
Returning Visitor	11,360	4.07	00:06:17	44.90%
New Visitor	8,174	2.46	00:02:08	59.32%
TOTAL	**19,534**	**3.4**	**00:04:33**	**50.94%**

Traffic Statistics by Region

Country / Territory	Visits	Pages / Visit	Avg. Visit Duration	% New Visits	Bounce Rate
United States	16,658	3.61	00:04:56	37.23%	48.87%
Canada	329	2.46	00:02:40	62.01%	52.58%
United Kingdom	244	2.41	00:02:29	53.28%	59.02%
Australia	243	2.6	00:02:57	56.38%	60.49%
India	211	1.48	00:01:01	77.73%	80.09%
Germany	151	3.03	00:05:35	62.91%	51.66%
Colombia	132	2.58	00:04:24	62.12%	55.30%
Brazil	117	1.96	00:01:47	80.34%	60.68%
(not set)	97	1.61	00:00:49	76.29%	82.47%
Spain	79	2.57	00:01:42	67.09%	45.57%
TOTAL	**19,534**	**3.4**	**00:04:33**	**41.84%**	**50.94%**

Traffic Statistics by Referring Source

Source / Medium	Visits	Pages / Visit	Avg. Visit Duration	% New Visits	Bounce Rate
google / organic	8,923	3.16	00:04:13	35.43%	50.21%
(direct) / (none)	5,528	3.12	00:03:48	63.13%	55.46%
mail.ufl.edu / referral	725	6.53	00:09:46	2.48%	31.17%
facebook.com / referral	548	2.64	00:03:39	51.46%	62.96%
us4.campaign-archive1.com / referral	423	4.64	00:09:20	6.15%	44.92%
bing / organic	276	3.96	00:04:34	19.57%	35.51%
google.com / referral	178	3.11	00:05:11	32.02%	47.19%
iDigBio e-Newsletter list / email	140	3	00:04:27	25.71%	51.43%
webmail2.bio.fsu.edu / referral	139	6.45	00:09:13	1.44%	27.34%
t.co / referral	133	4.14	00:04:57	34.59%	44.36%
TOTAL	**19,534**	**3.4**	**00:04:33**	**41.84%**	**50.94%**

Traffic Statistics by Browser

Browser	Visits	Pages / Visit	Avg. Visit Duration	% New Visits	Bounce Rate
Firefox	6,106	3.55	00:05:13	37.27%	46.63%
Chrome	5,770	3.93	00:04:56	41.18%	46.53%
Safari	4,591	3.01	00:04:17	35.50%	61.12%
Internet Explorer	2,698	2.77	00:03:05	59.82%	49.37%
Android Browser	153	2.47	00:02:54	60.78%	67.97%
Mozilla Compatible Agent	75	1.51	00:00:36	93.33%	89.33%
Safari (in-app)	48	1.44	00:00:24	87.50%	75.00%
Opera	33	1.58	00:00:56	78.79%	72.73%
Opera Mini	22	1.32	00:00:30	86.36%	81.82%
Mozilla	16	1	00:00:00	100.00%	100.00%
TOTAL	**19,534**	**3.4**	**00:04:33**	**41.84%**	**50.94%**

Traffic Statistics by Mobile Device

Mobile Device Info	Visits	Pages / Visit	Avg. Visit Duration	% New Visits	Bounce Rate
Apple iPad	389	2.91	00:03:21	52.70%	59.38%
Apple iPhone	304	1.7	00:00:58	70.39%	70.39%
(not set)	38	2.74	00:02:12	68.42%	60.53%
Google Nexus 7	14	1.71	00:00:25	64.29%	71.43%

Mobile Device Info	Visits	Pages / Visit	Avg. Visit Duration	% New Visits	Bounce Rate
SonyEricsson LT15i Xperia Arc	13	1.23	00:00:19	84.62%	84.62%
Samsung GT-P7510 Galaxy Tab 10.1	12	5	00:06:37	8.33%	8.33%
HTC A310e Explorer	7	2.14	00:01:39	14.29%	85.71%
Apple iPod Touch	6	3.67	00:03:52	66.67%	33.33%
Samsung GT-I9100 Galaxy S II	6	1.5	00:00:31	50.00%	66.67%
T-Mobile G2 Touch HTC Sapphire	6	4.33	00:09:48	16.67%	50.00%
TOTAL	**924**	**2.38**	**00:02:21**	**61.36%**	**64.61%**

eNewsletter Statistics (4/22/2012 thru 3/17/2013)

Title	Send Date	Total Recipients	Successful Deliveries	Total Bounces	Times Forwarded	Unique Opens	Open Rate (%)	Total Opens	Unique Clicks	Click Rate (%)	Total Clicks	Unsubscribes
iDigBio e-newsletter Jan/Feb 2013	Feb 27, 2013 11:46 am	535	528	7	0	199	37.69	537	74	14.02	129	3
iDigBio e-newsletter Nov/Dec 2012	Dec 06, 2012 09:06 am	535	528	7	0	188	35.61	454	62	11.74	101	0
iDigBio e-newsletter Oct 2012	Oct 26, 2012 10:02 am	533	528	5	2	203	38.45	458	76	14.39	120	1
iDigBio e-newsletter Sep 2012	Sep 17, 2012 12:12 pm	532	527	5	0	209	39.66	584	81	15.37	151	1
iDigBio e-newsletter Aug 2012	Aug 13, 2012 08:00 am	537	529	8	0	235	44.42	677	104	19.66	208	1
IDigBio e-newsletter July 2012	Jul 10, 2012 05:04 pm	526	520	6	0	237	45.58	732	98	18.85	206	0
iDigBio e-newsletter	Jun 12,	438	428	10	0	171	39.95	1360	82	19.16	312	2

Jun 2012	2012 02:29 pm											
iDigBio e-newsletter May 2012	May 10, 2012 11:59 am	407	401	6	1	150	37.41	391	83	20.70	140	0
IDigBio e-newsletter April 2012	Apr 02, 2012 06:09 pm	352	350	2	0	132	37.71	301	60	17.14	129	2
iDigBio e-newsletter Feb 2013	Feb 29, 2012 02:45 pm	349	345	4	0	128	37.10	485	53	15.36	115	1

Collaboration Software Statistics (4/22/2012 thru 3/17/2013)

Adobe Connect System Summary

Total Users	65
Aggregate Login Users	0
Storage Consumption (kB)	22,264,057

Adobe Connect Meeting Summary

Total Hosts	26
Distinct Meeting Rooms	62
Total Meeting Minutes (hh:mm:ss)	4428:40:00
Total Host Minutes (hh:mm:ss)	2181:58:00
Peak Concurrent Users	44
Storage Consumption (kB)	8,532,755

Social Media Statistics (4/20/2012 thru 3/21/2013)

Facebook

Total Likes	191

Twitter

Total Followers	130
Total Tweets	106