SUMMIT IV Evaluation Public Report Prepared by Shari Ellis, Ph.D. Florida Museum of Natural History

Summary

All participants in the fourth iDigBio Summit were invited to complete an electronic survey regarding the organization of the Summit, next steps for various iDigBio initiatives, and planning for Summit V. Over 60% of participants responded, representing each TCN funding cohort, iDigBio, and collaborating organizations. Summit planning and organization was rated highly, with respondents giving the Summit an overall average grade of A-. In terms of meeting components, the lightning talks were deemed the most effective with demonstrations the least (although still rated as at least somewhat effective by 80% of respondents). The discussion sessions varied in effectiveness, although all were rated as at least "somewhat effective" by most participants. While a large majority of participants felt the Summit offered valuable networking opportunities, a significant minority felt that opportunities for communication among newer and older TCNs was lacking. A large majority of respondents reported increased knowledge of iDigBio and the national digitization effort and the TCNs as a result of participation in the Summit, and most anticipate increased communication with other TCNs, PENs, and RCNs as well, including new collaborations.

When asked for ways to improve future Summits, respondents emphasized opportunities for discussion, Q & A, and especially informal interaction. Responses to an open-ended question about education and outreach revealed building connections and shared resources across TCNs to be of high priority. There was little consensus about next steps regarding the data portal, but a variety of unique suggestions. Recommended priorities for iDigBio in the upcoming year include assisting TCNs in a variety of ways, working on sustainability, and broadening participation.

Background

In the summer of 2014, iDigBio invited representatives of four cohorts of TCNs, members of the iDigBio External Advisory Committee, representatives of collaborating organizations, and NSF staff to attend the fourth annual iDigBio Summit. TCNs were encouraged to send multiple representatives, with iDigBio covering the cost of up to three (see invitation, Appendix A). The Summit was held October 27 – 28, 2014. The agenda and related materials can be found on the Summit IV wiki page.

Over 90 representatives of the various organizations participated in the Summit. Each TCN sent at least two representatives. We invited all Summit participants to complete an electronic survey that asked them to rate the Summit organization and scheduling, effectiveness of meeting components (e.g., presentations, demonstrations), and possible impacts of participating in the Summit. We also asked for suggestions on ways to increase collaboration and communication among TCNs, next steps for education and outreach and the data portal, issues iDigBio should focus on over the next year, and ways to ensure the success of Summit V.

Respondents

Fifty-seven of 92 Summit participants responded yielding a 62% response rate. Forty-one percent of respondents were female; 59% male. Ninety-six percent of those who answered the question reported to be White; 6% Hispanic or Latino. One-third (n = 19) of the respondents were affiliated with iDigBio with 51% affiliated with a TCN (see Figure 1). At least six individuals responded from each of the TCN funding cohorts (See Figure 2).

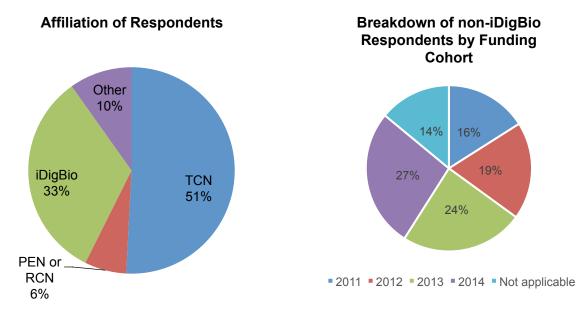


Figure 1. Figure 2.

Summit Planning and Organization

The vast majority of respondents agreed that communication about the Summit was timely, important issues were discussed, and that time was appropriately distributed among presentations, discussions, posters, demonstrations, and informal interactions (see Figure 3). That said, comments to free response items suggest that slight adjustments to the schedule might be appreciated—most notably increased time for informal interaction.



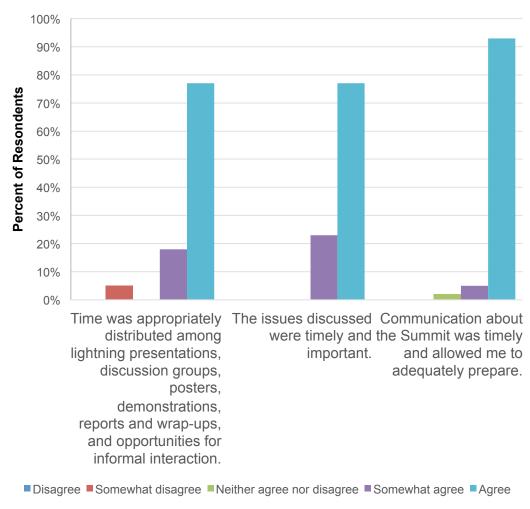


Figure 3.

Most respondents rated each structured component (e.g., lightning presentations, demonstrations) as at least "somewhat effective," with over 70% rating the both the iDigBio and TCN lightning presentations as "effective" (see Figure 4). Some participants suggested that it would be preferable if the lightning presentations shifted away from accomplishments to future plans (iDigBio) and problems solved (TCNs). The demonstrations were deemed as the least effective. Several factors contributed to the relatively low rating of the demonstrations including (1) difficulty understanding the speakers due to jargon and other issues; (2) the demonstrations were held on the second afternoon when participants were weary; and (3) the content may be better suited for hands-on exploration.

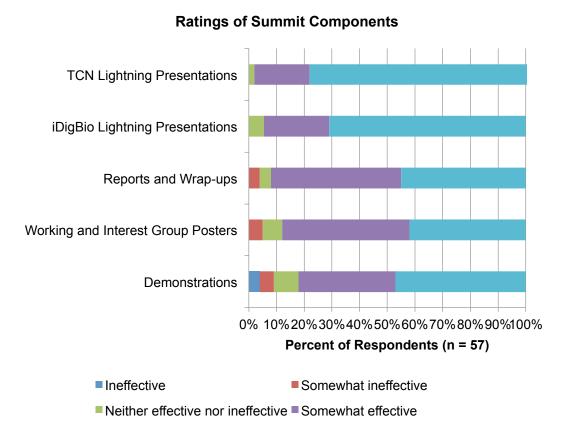


Figure 4.

Effective

Assuming that number of survey responses submitted reflects attendance in the discussion sessions (and this may not be the case), citizen science, data management, and the iDigBio portal were of greatest interest to Summit participants. Among discussion sessions, those on project management and citizen science received the highest effectiveness ratings (see Figure 5). Several respondents felt the discussion sessions were too short, while others observed the discussions were too diffuse or off-track. The discussion reports were variable in quality with some skillfully summarizing the main points addressed and next steps while others were somewhat vague on both. The quality of both the discussions and reports might be improved in the future with a bit more advanced planning. For example, discussion leaders might select a list of issues to address rather than expecting topics of interest to emerge organically, expectations regarding the nature of the wrap-up reports could be made clearer, and individuals known to deliver skillful summaries should be selected to do the wrap-ups when possible. At minimum, those delivering the wrap ups should work from their own notes.

Ratings of Discussion Group Effectiveness

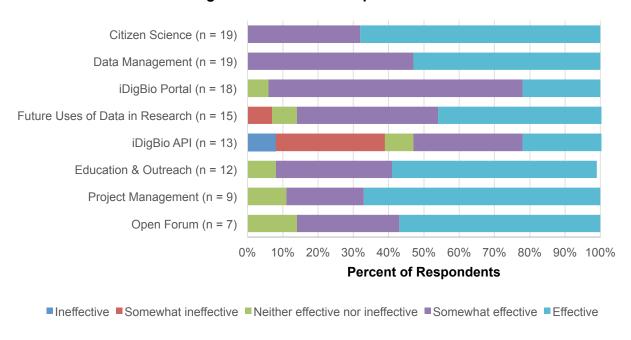


Figure 5.

An important reason for holding the Summit is to provide opportunities for networking among the community. More than three-quarters of those affiliated with iDigBio or holding "other" affiliations and 85% of respondents affiliated with TCNs, RCNs, and PENs agreed that the Summit provided valuable networking opportunities (Figure 6). However about one-third of participant felt there were not sufficient opportunities for younger TCNs to ask questions of the older TCNs and representatives of older TCNs to share lessons learned with the younger ones. Respondents offered a variety of suggestions on ways to increase interaction among TCNs from different cohorts including (1) making participant bios (including photos) available prior to the Summit; (2) have a pre-session limited to representatives of new TCNs and iDigBio staff; (3) providing opportunities for those working with the same types of organisms to get together; and (4) provide more time for discussion and interaction.

The Summit offered valuable networking opportunities.

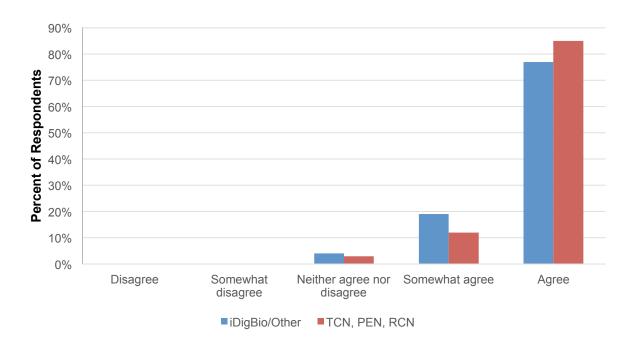


Figure 6.

Sufficient Opportunities for Sharing Among New and Old TCNs

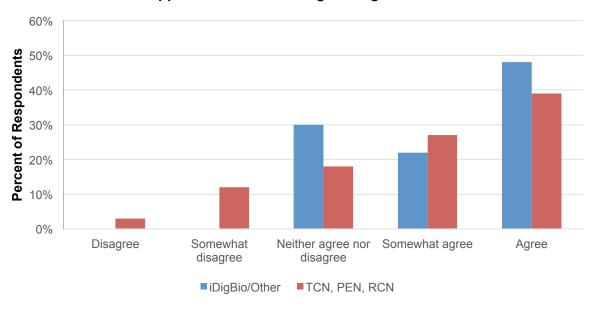


Figure 7.

Potential Impact of Participating in the Summit

More than 70% of respondents anticipate they will begin a new collaboration (71%) or have increased communication with other TCNs, PENs, or RCNs (72%) as a result of the Summit, while 53% anticipate joining a Working Group or starting a new one (see Figure 8).

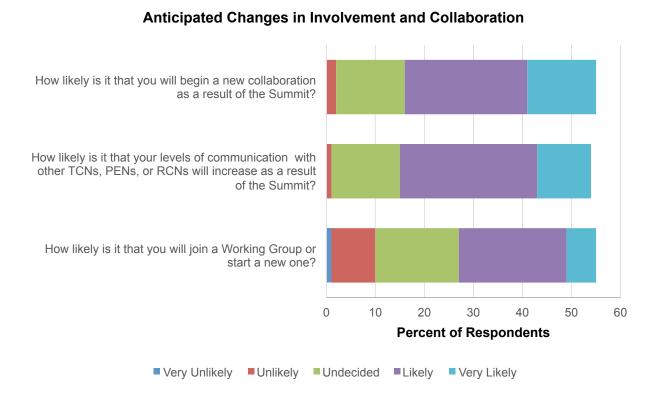


Figure 8.

Most participants also reported increases in knowledge about iDigBio and the national digitization effort and TCNs as a result of participating in the Summit, 85% and 98% respectively (see Figure 9).

Changes in Knowledge

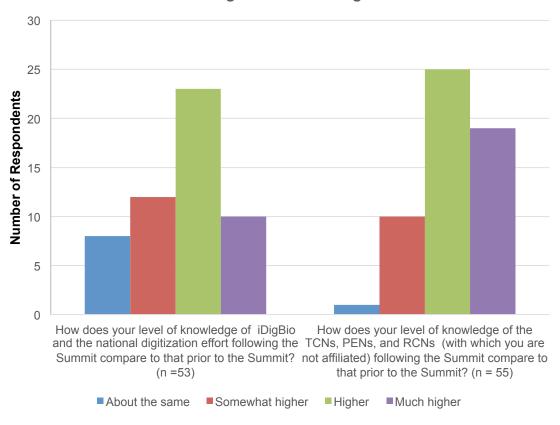


Figure 9.

Overall Summit Grade

Respondents gave the Summit, on average, an overall grade of A-.

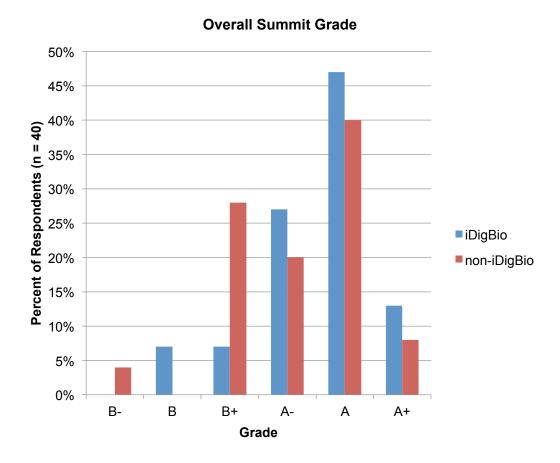


Figure 10.

Increasing Collaboration and Communication among TCNs and others

We asked respondents to reflect on ways to increase collaboration and communication among TCNs and others as the number funded continues to grow while others transitions out of the funding period. Twenty-five individuals offered suggestions which fell into the following categories, listed in order of frequency from most frequent (n = 7) to least (n = 2):

- Joint publications or other collaborative research-related projects
- Inviting "retired" TCNs to Summits
- Inviting "retired" TCNs to Internal Advisory Committee Meetings
- Organizing other meetings such as a national digitization conference or smaller meetings involving multiple TCNs and collaborating organizations
- Addressing the importance of collaboration and communication directly—perhaps via a new working group or by encouraging new proposals to include a dedicated staff person (graduate student or project manager) with those responsibilities
- Participation in working groups (e.g., sustainability)
- · Using social media

- Using traditional communication (e.g., highlighting a TCN in each newsletter)
- By ensuring adequate time for interaction during the Summit

Next Steps for Education and Outreach

Nearly half (29/57) of those who responded to the survey answered a question about the priorities of the Education and Outreach Coordinator, once hired. Categories of responses included:

- Building connections and shared resources across TCNs (n = 12)
- K12 education (n = 10)
- Raising awareness of collections and digitization among the public (n = 7)
- Developing resources for undergraduate education (n = 5)
- Reaching diverse groups (e.g., seniors, tribal members, etc.)(n = 5)

Suggested shared resources included online and distance learning modules representing content and lesson plans from the various TCNS, templates for education and outreach, and a suite of products highlighting iDigBio and TCNs (e.g., flyers, pre-packaged powerpoint presentations, lesson plans, etc.).

Ideas related to K12 education included engaging with teachers in the development of programs, tools, and resources aligned with the Common Core standards, development of lesson plans that involve digitized specimens, creating modular lessons, getting collections into classrooms, and reaching afterschool programs.

Those interested in raising awareness suggested public information campaigns to increase awareness of the general public about the importance of biodiversity in collections. Another respondent suggested developing materials and strategies that help collections managers and curators better communicate the importance of their collections and to deliver outreach, both externally to the general public and internally to others within their institution, including administrators.

To reach undergraduates, one individual suggested "kits" of information about data transcription, editing, georeferencing or using data for analysis that can be worked into introductory level courses in universities and community colleges.

Next Steps for the Portal

Twenty-three individuals responded to a question that asked for their thoughts on next steps of the data portal. Seven of the 23 seemed to interpret the question to refer to the iDigBio website rather than the data portal. Their suggestions included:

- More links to features from other websites/software
- Videos on how to use the portal

• Make navigation to resources easier, perhaps by organizing them by type of collection (e.g. wet vs dried, etc.) and by step of the process (e.g. preparing specimens, taking the images, etc.) rather than by workshop

With respect to the data portal itself, two or more respondents offered suggestions related to the following issues:

- Increase search flexibility
- Integrate with or link to other data (e.g., Smithsonian)
- Show use cases
- Address attribution
- Make data more usable
- Increase awareness of the data portal

Others offered the following unique and specific suggestions:

- Integrate [the portal] with research tools
- Designing data management capabilities
- Ensure accessibility to all audiences
- Build and publish a robust API
- Prevent multiple records (each from a different source e.g., a portal and the authoritative institutional database) for a particular specimen from appearing in the portal especially when the multiple records have the same globally unique occurrence ID.
- Don't post images if they cannot be examined online. A large proportion come without a
 creative commons license and it is a little frustrating to see they exist but you cannot see them.
 Could you accept other licenses? This may not be possible but it seems is a waste of time for
 people to upload if the images cannot be viewed.
- The advanced query is very neat but might be difficult for someone from the public to navigate (if you are aiming for the public as well).
- Make the thumbnails much smaller when you search for large batches-less scrolling and easier comparison.
- The world map is great but in too small frame on the initial page. Needs to larger to be useful.
- Provide a way for users to give feedback to the originator of the data

Most Important Issues for the Upcoming Year

A question that asked for the three most important issues that iDigBio should focus on during the upcoming year drew the most responses (n = 30) of any of the open-ended questions. Responses fell into the following categories:

Provide assistance to TCNs (n = 11) Sustainability (n = 9)

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Broadening participation (n = 9)

Education and Outreach (n = 8)

Data quality (n = 8)

Research uses (n = 6)

Increase awareness (n = 5)

Improve the portal (e.g., efficiency) (n = 5)

Training (n = 3)

Data management (n = 3)

Funding (n = 3)

Connect with similar initiatives (n = 2)

Citizen Science (n = 2)
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The most frequent response, especially among non-iDigBio affiliates, referenced various ways iDigBio could assist TCNs; about half of these responses focused on facilitating communication and cooperation among TCNs. Sustainability was also mentioned very frequently, especially when one considers that several comments grouped in other categories such as "data management" and "funding" are also related to sustainability.

Broadening participating—or bringing in new collections— was another common priority. Responses that mentioned *education and outreach* and *increasing awareness* were coded into separate categories although they are clearly related. Interestingly, *education and outreach* was mentioned primarily by members of iDigBio, while those not associated with iDigBio were more interested in *increasing awareness*.

Suggestions for Summit V

Finally, we asked Summit IV participants for suggestions on ways to ensure the success of the next Summit given that it will be an even larger meeting. The most common response (n = 7) related to advance planning. Several individuals suggested either using the results of the present survey or polling participants in advance of the Summit or otherwise engaging a broader group in discussions to select key issues to be addressed during the Summit. It might be noted that the Summit IV planning committee did, in fact, reach out to the broader community for input regarding topics to be addressed and received little feedback; perhaps a formal survey or a wider distribution of the email requesting input would prove more effective.

Although not popular among all, several respondents suggested the Summit be longer. Extending the Summit would help address other priorities of those who responded to the survey including additional breakout sessions, ample time for Q & A and discussion, and especially opportunities for informal interaction both among and across TCNs.

Appendix A. Summit IV Invitation

Dear Lead Principal Investigators of TCNs:

The fourth annual iDigBio Summit will be held <u>October 27-28, 2014, in Gainesville, Florida</u>. The Summit is a meeting of representatives from TCNs, iDigBio, and other activities related to the Advancing Digitization of Biodiversity Collections (ADBC) program. The Summit will focus on discussions of shared goals, challenges, opportunities, and collaboration.

iDigBio will cover the cost of travel, lodging, and meals for 3 representatives from each TCN. Your TCN may send 1 or 2 additional representatives at your own cost. Please email Cathy Bester (cbester@flmnh.ufl.edu) with the names and email addresses of the individuals from your TCN who will attend the meeting. Space is very limited, so we must have your list of attendees no later than August 1.

The meeting will consist of lightning presentations and discussion sessions to enhance collaborations on issues relevant to all of us. In addition, we will have a poster/exhibit/demo session to facilitate further exploration of TCNs, working groups, etc. We ask that each TCN prepare a 5-7 minute presentation, and iDigBio will prepare similar presentations regarding its activities. More details will follow once the Summit agenda is finalized.

An informal welcome reception will be held at the Hilton on Sunday evening (Oct 26), a dinner reception will be held at the Florida Museum of Natural History on Monday evening (Oct 27), and the Summit will conclude in the afternoon on Tuesday (Oct 28). It is recommended that participants plan to travel on Sunday (Oct 26) and Wednesday (Oct 29). Gainesville is surrounded by outstanding natural areas that you may wish to visit, and/or you may wish to work in the collections at the Florida Museum of Natural History. If you would like more information about the area or FLMNH, please let us know.

Finally, if you have a topic that you would like to have addressed in one of the discussion sessions or if you would like to present a poster/exhibit/demo, please suggest it by emailing David Jennings (djennings@flmnh.ufl.edu).

Thank you for your participation! We look forward to seeing your TCN representatives at Summit IV in October!

Sincerely,

The iDigBio Leadership Team:

Larry Page, Pam Soltis, Bruce MacFadden, Jose Fortes, Greg Riccardi, Austin Mast, and David Jennings