Agenda

Feb 2nd, 2022

In attendance: (add your name here)
Diego Barroso (TORCH TCN Project Manager. BRIT, Fort Worth, TX, USA)
Paul Larson FWRI (DigIn and ESB TCNs)
Rüdiger Bieler (ESB lead; DigIn, PILSBRy)
Arthur Bogan NC Museum of Natural Sciences, Raleigh, Mollusks, Eastern Seaboard
Regina Wetzer, DigIn TCN lead @ NHMLA
Dave Blackburn, oVert / iDigBio
Jenn Yost (CAP TCN, SSH)
David Jennings (iDigBio Project Manager, University of Florida, Florida Museum, work remotely from Claremont, CA)
Jessica Budke (GLOBAL Lead PI, University of Tennessee, Knoxville)
Peter Oboyski (UC Berkeley, Essig Museum - BigBee & LepNet TCNs)
Miranda Zwingelberg (GLOBAL Project Manager, University of Tennessee, Knoxville)
Chrissy Piotrowski (DigIn, California Academy of Sciences)
Norine Yeung (PILSBRy lead, Bishop Museum)
Roberta Lombardi (Collections Manager MASS)
Amanda Chandler (GLOBAL TCN, Lead Digitizer, NYBG)
Genevieve Walden [CAP TCN PEN, California Department of Food and Agriculture]
Greg Post (ASU, SSH)
Amy Kasameyer (PCC TCN Project Manager, University and Jepson Herbaria, UC Berkeley)
Laura Briscoe (Collections Manager, NYBG)
James Lendemer (Lichen Curator, NYBG)
Katie Pearson (ASU, Symbiota Support Hub, CAP TCN)
Nico Franz (ASU, SSH, BigBee)
Timothy Gallaher (Botany Curator, Bishop Museum)
Erica Krimmel (iDigBio, FSU)
Bridget Chalifour (DigIn, Interim Collections Manager, UCM)
Ryan Allen (SoRo Project Manager) (GLOBAL, All-Asia, Tri-Trophic, LBCC)
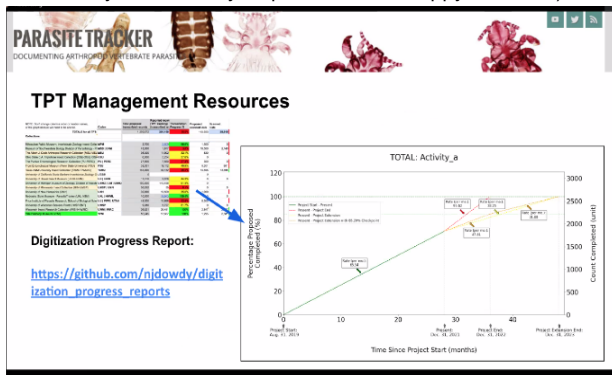Jamie Smith (ESB, North Carolina Museum of Natural Sciences)
Ainsley Seago (TPT, Carnegie Museum of Natural History)

1. General TCN announcements/updates
   ● SoRo has surpassed 1,000,000 images!
   ● TORCH TCN Summer Internship. Extended Application Deadline, now Feb. 14th. Runs June 6th thru August 12th. More info at: https://www.torcherbaria.org/internship

2. **TCN inspiration** from:

- ○ Katja Seltmann - TCN: Extending Anthophila research through image and trait digitization (Big-Bee) BigBee TCN: http://big-bee.net
    - i. 10,000 imaged!
    - ii. Open hiring process
    - iii. Would like to discuss what TCNs need (they are likely similar across TCNs)
    - iv. Like to discuss communication of research questions and products. How do we continue to increase the research use of our data?
    - v. Increased collaborations (interested in hearing about how closely other TCNs stuck to their initial research questions/goals)
    - vi. Erica Tucker notes that communication has been great in this TCN, partially thanks to Slack, partially due to PI buy-in/participation, weekly meetings

- ○ ~~Jessica Budke - Building a global consortium of bryophytes and lichens: keystones of cryptobiotic communities~~
    ~~GLOBAL TCN: https://globaltcn.utk.edu~~ Jessica had a conflict this morning and will not be able to present today

- ○ Stephen Cameron & Jennifer Zaspel & Erika Tucker - Digitizing collections to trace parasite-host associations and predict the spread of vector-borne disease
    TPT TCN: https://parasitetracker.org
    - • >600,000 transcriptions and images
    - • >400,000 association records
    - • Lots of Notes from Nature expeditions
    - • Challenges with taxonomic backbone (had to create one)
    - • Taxonomy: https://github.com/njdowdy/tpt-taxonomy/tree/main
    - • Progress reports: https://github.com/njdowdy/digitization_progress_reports
    - • Please email emtuckerlab@gmail.com for google spreadsheet templates - they've been very helpful and we're happy to share :)

Who else is dealing with taxonomy issues?

- Rudiger Bieler: ESB is working closely with WoRMS/MolluscaBase on further developing and improving those taxonomic/nomenclatural resources
- Katja Seltmann (Big Bee): We are discovering that the name lists available for bees do not necessarily match the needs for digitization for various reasons. Insect collections use names that are not just species, but some specimens are determined to subgenera for example. Also, original names for holotypes are an issue because they need to be the identification, even if not currently the accepted combination of the name.
- Miranda Zwingelberg (GLOBAL): The Bryophyte and Lichen portals had existing Taxonomic Thesauri from the original Bryophyte and Lichen TCN, but were missing a lot of Non-North American taxa. Luckily we have some great resources in our PI's who have been working to make the thesauri more comprehensive. It's an ongoing process!
- Regina Wetzer (DigIn): DigIn can use WoRMS mostly, but individual institutions are working on getting taxonomies into their individual DBs as well as work with multiple taxonomies. Some of us are reasonably set, others are needing to build/import a taxonomic DB as they start their new databases.
- Norine Yeung (PILSBRy): Project objective to develop a taxonomic authority file for Pacific Island land snails and working with WoRMS/MolluscaBase to merge resources and update names. Still mining literature to add additional names.
- TPT - we've needed to develop comprehensive parasite lists for our project. Our process and lists are available here: bit.ly/TPTresourceHub
- iDigBio Community Slack workspace (https://bit.ly/3koGvkZ)
- Both BLUE and iDigBio have been working to get resources up on QubesHub, many of which come from TCNs and PENs: https://qubeshub.org/community/groups/collections/resource_collection
- Reed - PEN opportunities still exist, and they can cover several collections because they're very small

3. Deciding on future meeting topics:
Potential Future TCN Advisory meeting topics are below.
Add your name if you like each idea and add more ideas below if you have them.

Potential topics

- **Leveraging support for unfunded collections**
  - Are there collections near you that have been left out?
  - Ways in which your support can serve a greater good.
  - Reaching out to unsupported collections.
    - Ex from US Forest Service - California
    - International collections
    - Pico [micro] grants?!
  - Role of regional consortia
  - Ways iDigBio can help
  - **Like this idea? Name here:** Gil Nelson, Katie Pearson, Rüdiger Bieler, Miranda Zwingelberg, Ryan Allen,J Kennedy, Norine Yeung, Jessica Budke

- **iDigBio website and search portal**
  - How do you use the iDigBio website?
  - What doesn't work?
  - What are you trying to find?
  - Is your project best represented?
  - What could be improved?
  - Ways iDigBio can help
  - **Like this idea? Name here:** J Kennedy,

- **Image storage**
  - What are collections doing?
  - Costs?
  - Obstacles?
  - Ways iDigBio can help
  - **Like this idea? Name here:** Paul Larson, Rüdiger Bieler, J Kennedy, Norine Yeung
    - (Neil Cobb) LightningBug.tech will likely promote the production of petabytes of images. Where will these be stored?
    - Image storage typically occupies 10X or more server space than specimen metadata storage so this is a real issue for all TCNs serving images. We need a national solution.

- **Future networks**
  - Collaborating on new funding proposals
  - New solicitation
  - System for including new partners to funding proposals - especially in a atmosphere that seems to be expanding in scope (extended specimen)
  - Ways iDigBio can help
  - **Like this idea? Name here:** Katja Seltmann
    - (Neil Cobb) We will be submitting a joint proposal to a special NSF call with Imperial College in late March. It will propose to extend the SCAN portal to UK collections and request funding to expand on capabilities in SCAN/Symbiota2 and related workflows (mostly R packages) and API links to other programs. Although this is a future network involving insect collections and software to address primarily insect problems, what we can solve for insects would likely help all taxa. If interested email neilscobb@gmail.com.

- **Project manager meeting: Tips and Tricks**
  - Reporting
    - NSF
    - iDigBio reports
      - Feedback, ways this can help rather than burden

- ● Can these align more closely with the NSF Annual Report?
    - ○ Communication management
        - ■ Email, slack, other…
    - ○ Tracking
        - ■ Google spreadsheets is super helpful - TPT has templates for PI's and daily tracking - please send [Erika](#) an email if you'd like a template
        - ■ Progress report graphs: https://github.com/njdowdy/digitization_progress_reports
    - ○ Where do you go for help?
    - ○ Ways iDigBio can help
    - ○ **Like this idea? Name here:** Katie Pearson, Miranda Zwingelberg, J Kennedy, David Jennings, Regina Wetzer
        - ■ (Neil Cobb) Too much emphasis on this and nothing about promoting publications.

- ● **Post award progress - How to keep the best parts of a TCN alive?**
    - ○ How has it been going?
    - ○ How have you kept up?
    - ○ Role of regional consortia
    - ○ Equipment use and sharing
    - ○ Challenges
    - ○ Equipment trading
    - ○ Ways iDigBio can help
    - ○ How do we make sure that stakeholders have access to all the resources that the TCNs have developed?   +1 (Erica Krimmel)
    - ○ **Like this idea? Name here:** Zack Murrell, Miranda Zwingelberg, J Kennedy, Jessica Budke

- ● **New ideas that you want to discuss? List them here:**
    - ○ **Social media and TCNS?**
        - **Like this idea?** Regina Wetzer
    - ○ **Symbiota Support Hub - what is it? What will it do for existing Symbiota portals? What are its plans for sustainability?**

[SSH purpose, high level]

The goals of the Symbiota Support Hub dovetail with those of various iDigBio domains:

A. Provide daily Symbiota support to the hundreds of collections currently using the software (Domain 2).
B. Coordinate and implement the novel Symbiota tools being developed by the TCNs across all networks (Domain 3).
C. Promote better collaboration, communication, and training among managers of Symbiota networks across the country (Domain 2).
D. Host and manage the networks and their associated images and integrate with iDigBio (Domain 3).
E. Provide a low-barrier digitization software option to collections that have not yet become digitizing (Domains 1 & 2).

[Sustainability] SSH budget includes funds for an ASU Business School research team to explore 'novel' business models towards sustainability. Program starts in Summer of 2022.

- - **Purpose of the iDigBio3 database (submitted by Neil Cobb)**
    - How is the database maintained at UF serving a unique role that is not already being served by GBIF and TCN portals? If iDigBio3 Database is not a primary aggregator then it should work to help connecting data providers to GBIF and help making sure their data is complete and FAIR as possible.
- **Bioinformatics needs or progress - getting on the same page. - Where are TCNs interests in co-developing infrastructure Katja Seltmann**

- **Moving snapshot data from Symbiota portals back to collections (avoiding duplicates in iDigBio)**

- **What are the post iDigBio3 plans for sustainability of an overarching support program (submitted by Neil Cobb).** The biodiversity community made significant progress on the NIBA goals except create a consensus support institute. The National Academies report on collections identified the same need the NIBA report had proposed 11 years earlier. BCON held several meetings to discuss a post ADBC-center that could extend the work accomplished during ADBC.The funding of iDigBio3 has bought the community 5 more years. There needs to be a consensus plan for one or more longer-term and sustainable efforts to provide some level of centralized support for biodiversity.

- **Provide a public version of iDigBio3 proposal.** What would help me the most right now would be a copy of a "public" version of the iDigBio3 proposal so I have a better sense of what was proposed and how Florida and ASU will be complementing each other. A copy of the Summary, Project Description (minus the prior research), References and Facilities would be helpful. FAIR should apply to funded proposals that are relevant to a community.

3. TCN Reports: Summary of issues
- shipping supply issues for imaging equipment
- data organization for entry into CMS - seems to be a "lessons learned"
  - Would a future data quality/data literacy workshop help?
- data redundancy - some mentions of "always make cloud backups"
- importance of protocols, archived/historical protocols for guidance - some institutions adopting protocols from other institutions within same TCN for their work
- complaints about CMS usability - Arctos for data entry, Specify for data cleaning
- "data cleaning is a tedious job"
- issues with georeferencing are (still) common