

GREAT LAKES INVASIVES TCN – Bi-monthly report **May 1 – June 30, 2015**

Fourth GLI TCN report, representing ca. ten months' of effort to date & first full year of grant period.

Our four regional data processing centers (NY Botanical Garden, Field Museum, Univ of Michigan, and Univ of Wisconsin-Madison) report the following from their constituents:

1) Progress in Digitization Efforts TO DATE

PLANTS:

- Specimens Barcoded Only (not photographed yet): 600 (WIS) + 33,100 (MIN) + 24,462 (NY) + 18,189 (ILLS) + 1424 (UWM) = **77,775**
- Imaged only AND image uploaded to a portal (i.e., no data record yet): 14,053 (MIN) + 6608 (OSU) = **20,661**
- Imaged only but image not yet uploaded to a portal: 6,198 (MIN) + 59,959 (NY) + 18,332 (F) + 10,000 (MICH) + 4,880 (MU) = **99,369**
- Databased only (skeletal or complete record) AND data uploaded to a portal (i.e., but not imaged yet): 6613 (MOR) = **6,613**
- Databased only but not yet uploaded to a portal: 53,351 (MIN) + 111,081 (NY) + 23,565 (F) + 27,000 (ILLS) + 9624 (MOR) = **224,621**
- Both Image AND a Data Record Uploaded to iDigBio, to the GLI Portal directly or to another Symbiota Portal for editing before transfer to GLI Portal: 62444 (WIS) + 6342 (MSC) + 520 (ILLS) + 3617 (MOR) + 1474 (UWM) + 14,900 (MICH) = **89,297**

PLANT IMAGING SUMMARY: At least 209,327 images taken. Target stated in grant proposal is 637,000. Imaging goal is 33% complete.

FISH:

- Specimens Barcoded Only (not photographed yet): **605** (MIN)
- Imaged only AND image uploaded to a portal (i.e., no data record yet): 0
- Imaged only but image not yet uploaded to a portal: 400 (MIN) + 610 lots (F) + 117 (MICH: UMMZ) = **1,190**
- Databased only (skeletal or complete record) AND data uploaded to a portal (i.e., but not imaged yet): **24,000** (ILLS)
- Databased only but not yet uploaded to a portal: 1365 lots (MIN) + 4709 lots/81,324 (F) + The 200,000 UMMZ fish database is complete, but data are currently only being uploaded to the portal when the corresponding images are ready (MICH: UMMZ) = **>6074** lots
- Both Image AND a Data Record Uploaded to iDigBio, to the GLI Portal directly or to another Symbiota Portal for editing before transfer to GLI Portal: 505 (MIN) + 63 (UMMZ)+ 2284 (OSU) = **2,789**

FISH IMAGING SUMMARY: Five institutions making progress so far. At least 3,979 images have been taken. Target stated in grant proposal is 102,000 lots. Imaging goal is 4% complete.

MOLLUSKS:

- Specimens Barcoded Only (not photographed yet): 0
- Imaged only AND image uploaded to a portal (i.e., no data record yet): 0
- Imaged only but image not yet uploaded to a portal: **2,645 lots** (UMMZ)
- Databased only (skeletal or complete record) AND data uploaded to a portal (i.e., but not imaged yet): **2,000** (ILLS)
- Databased only but not yet uploaded to a portal: **15,668** (UMMZ)
- Both Image AND a Data Record Uploaded to iDigBio, to the GLI Portal directly or to another Symbiota Portal for editing before transfer to GLI Portal: **855** (UMMZ)

MOLLUSK IMAGING SUMMARY: Two institutions making progress so far. At least 4,355 images taken. Target stated in grant proposal is 44,000 lots. Imaging goal is 10% complete.

2) Share and Identify Best Practices and Standards (including Lessons Learned)

From UWM: After experiencing some trouble with autofocus (i.e., autofocus failed to find the focal plane, which was only detectible after opening the image; this lead to time wasted as we deleted the out-of-focus photo, used live view to get an in-focus image...), we found the fastest way for us to image using EOS Utility and Great Lakes TCN Workflow:

1. Open EOS Utility (and Great Lakes TCN Workflow, new session, etc.), open **Live View Shoot** window.
2. Move focus frame to part of specimen, turn **Live Mode ON**, take photo when frame turns green (no need to check each photo for focus now!).
3. In Great Lakes TCN Workflow, enter barcode
4. Enter taxon name...
5. Press Enter
6. Back to step 2.

From Univ of Michigan: "As suggested by OSU, we have been working in pairs when imaging fish, and have found the throughput to be much faster than that of a single technician working alone."

From several herbarium partners: The rate of processing that was stated in the grant proposal (60 sheets per hour) is too high, especially if skeletal records are being created at the same time as imaging. A rate of ca. 40 sheets per hour has been more realistic. As a result, funds are being depleted before all specimens can be digitized.

3) Identify Gaps in Digitization Areas and Technology

Nothing to report.

4) Share and Identify Opportunities to Enhance Training Efforts

Nothing to report.

5) Share and Identify Collaborations with other TCNs, Institutions, and Organizations

The New York State Museum now has its portable imaging station in order to image its respective specimens. They should be contributing data soon.

6) Share and Identify Opportunities and Strategies for Sustainability

Nothing to report.

7) Other Progress (that doesn't fit into the above categories)

A new imaging station was added to UMMZ's Mollusk lineup. Several participants attend the SPNHC meeting. Papers were delivered. Ken Cameron will deliver a paper at the Botany meeting in Edmonton, Canada later this month.