## **Mixed Media**

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## Plant Disease and Pest Riker Mounts: A Unique Opportunity

By Danielle Nowak, Morton Arboretum

For better or worse, 2020 has presented archives and libraries around the world with unique circumstances and challenges. While the staff of the Sterling Morton Library (The Morton Arboretum) spent a good portion of 2020 working solely from home, as safety measures and other procedures were put into place, staff was allowed back into the library on a part-time basis. Once back in the library, a staff member of the plant pathology lab had a unique project request: to digitize over 250 riker mounts containing plant diseases and pests and then making them available for checkout from the library.



Gypsy moths preserved in a riker mount

The pathology lab currently houses the approximately 250 riker mounts of varying sizes (12 x 16.5 in., 8 x 12 in., and 6.5 x 9 in.). The specimens inside the mounts represent a wide range of host species and related disease specimens on plant parts. On the mounts themselves is an id number that was assigned by the pathology lab. This id number correlates to an Excel spreadsheet that contains the metadata associated with each mount. This metadata includes mount id number, mount size, disease or pest, causal organism, host (Latin name), host (common name), date collected, collection location, and the host's accession number.

To date, these mounts have gotten sporadic use by staff and external users. While we do not yet know the full potential audience for lending the riker mounts, the target audiences for lending the mounts via the library are instructors/professors from local colleges and universities, municipal foresters, and/or master gardeners who are interested in learning more about diagnosing tree diseases. Standardizing and centralizing information about and access to this riker mount collection will contribute to the growing number of resources the Arboretum uses to support its plant health-care program.

It was decided that the mounts would be digitized and then hosted on the Arboretum's collections management system, what is referred to as ACORN (Arboretum COllections Resource Nexus). The mounts would be digitized so that when a patron accesses their object records on ACORN, they can view what the mounts contain prior to deciding whether or not to check them out. The mounts were digitized on an Epson Expression 1000xl flatbed scanner. While a flatbed scanner might not be the ideal tool to use to digitize these mounts, because of the ease of access to a flatbed scanner and the fact that each of the mount sizes fits on the scanner, this was the tool selected to digitize the mounts.



Epson scanner used to digitize the mounts

Prior to beginning the processing work on the project, it also had to be decided where the digitized mounts and

(Continued on page 28)

(Continued from page 27)

their metadata would be hosted so patrons could access them. The two choices were hosting them on ACORN (which was ultimately selected) or via SWAN, the consortium the library's public access catalog is a part of. Each platform had its pros and cons. With SWAN, the mounts would be visible to a larger audience. While this seems like it would be a pro, there was some level of risk associated with this option. Should we put the mounts on SWAN, there would be the possibility that they would be requested via RAILS, our interconsortium delivery service. Because of the condition of some of the mounts, having them delivered via RAILS would not be the safest option. However, having them accessible via SWAN would allow us to assign them a barcode and easily keep track of what has been checked out and what is available for use. While ACORN lacks the streamlined process to check items out (the riker mounts are actually the only material in ACORN that are available for the public to check out), the fields available within ACORN were more appropriate for the metadata associated with each mount. Additionally, hosting them via ACORN would allow us to provide more information on their physical condition and how the check-out process would work. Because the materials are somewhat fragile, it will be necessary for the patron to come to the Arboretum directly to pick them up.

Once these decisions were made, the scanning began. It took roughly two to three minutes to scan each mount. Each mount was scanned as a .tiff so it could serve as an appropriate master file and so the images could be used for marketing purposes should the opportunity come up. Overall, the scanning took about 12 hours. Because COVID-19 precautions had library staff in the library on a limited basis and there were an assortment of other projects on the librarians' dockets, it took about four work days to complete all of the scanning.

The next step is to ingest the digitized mounts and their metadata. Ingesting the metadata is a bit more challenging than ingesting the media. In CollectiveAccess, once records have been created for the metadata that has been ingested, users can ingest the associated media and have it attached to its appropriate record. Achieving this can be time consuming initially. Because we had not had any large-scale artifact collections ingested into ACORN, a unique data mapping spreadsheet had to be created to successfully ingest and attach the metadata. It is imperative that the



Cart of riker mounts delivered to the library from the plant pathology lab

data mapping spreadsheet is entirely accurate. A single misaligned field could be catastrophic for all the records that are being batch assigned metadata. Therefore, it is essential to take the necessary time and care when creating the data mapping spreadsheet and making sure that the arrangement of the metadata spreadsheet is aligned with the mapping.

Ingesting the media aspect is relatively easy. CollectiveAccess (the backend of ACORN) allows us to ingest media in batches. Library staff was able to ingest the entire folder of digitized mounts in approximately four minutes. However, before ingesting the media, users must change the original filename to the CollectiveAccess id number that was assigned to the record that holds its metadata. While this process is relatively simple with the use of Adobe Bridge, it is essential that the file renaming is entirely accurate or images may not be connected to the correct record.

The final step to make the project live was to determine a check-out procedure. Because ACORN is not

equipped for a streamlined check-out process, library staff was required to accommodate. In each mount object record is a statement explaining that these specific materials can be checked out for off-site use. This statement includes a link to a Google Form that takes the users information and emails the library staff, notifying them of the inquiry.

The final step in this project will be to market the materials. This marketing plan is still a work in progress but will likely target local educators as the primary audience. This unique challenge was an interesting and beneficial learning experience for library staff. Library staff is also very grateful for the opportunity to collaborate with other departments and assist them in providing information and resources to the community.



Riker mount containing red oak leaves with bacterial leaf scorch



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