

WVA Herbarium Newsletter

Number 21 (2016)

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SE Flora Digitization Grant: *Imaging Station Added to Herbarium!*

It was an exciting year beginning work on the southeast U.S. flora specimen digitization project. In 2015, Dr. Ford-Werntz attended regional (TN, April) and international (FL, May) conferences with symposia and workshops on imaging protocols and transcription databases.

During summer 2015, two students worked sorting specimens by region (separating southeast states), while digitization equipment (camera, photo-box, copy stand, computer hardware and software) was being purchased. They both were challenged by reading handwritten labels and learned much about state geography.

Three new students were hired for fall 2015. They continued the sorting process (finished in November), updated plant names, and applied barcodes. Many duplicate specimens were found and directed into collection exchange programs with other herbaria (see right).

Non-Vascular News

Dr. Sue Studlar continues to be very active with teaching, research and outreach relating to mosses and lichens. In Fall 2015, she mentored four Biol 491 student herbarium interns working on non-vascular specimens.

A recent project is preparing lichen and bryophyte voucher sets for National Park Service use in their Cliff Ecosystem Monitoring program. Dr. Studlar contributed to studies of New River Gorge climbing impacts on non-vascular species, published last year in *Evansia*.

She was also interviewed for a lichen article in March 2016 *Wonderful West Virginia* magazine. Her moss walks at Blackwater Falls Wildflower Pilgrimage (May) and the West Virginia Botanic Garden (September) have a devoted following and spread appreciation for the state's smaller stature flora.

The imaging station was assembled and calibrated to start specimen digital photography in November. Barcoding of ca. 24,670 collections from the 11 non-West Virginia states ended in February. Over half of these (13,375) have been imaged to date (average 53/hour).

Students are trained to do both photos (camera software) and image conversion (Lightroom software). Upload to NSF's iPlant server (.dng & .jpg files) is done for 5,882 specimen photos. A work-study student (non-grant pay) is refiling the imaged specimens, as well as doing folder organization and improvement.

In the last stage, images will be linked to online databases at the project website (sernecportal.org). The final step is transcription of label information and locality geocoding (latitude and longitude). Programs to involve citizen science volunteers in this stage are being implemented.

WVU Herbarium digitization work was the focus of an article in the October/November 2015 issue of *Morgantown Magazine* (widely distributed in the state). We expect to accomplish much more during the remaining three years of funding!

Curatorial Projects Progressing

During 2015, nine donors contributed 2,077 pressed plant collections to the WVU Herbarium. West Virginia Native Plant Society member Kevin Campbell gave ca. 1,600 specimens. Another set of 429 was from various West Virginia Division of Natural Resources botanical projects.

This material is being mounted by two talented staff: a community volunteer and a work-study student employee. Also, Dr. Ford-Werntz made labels for backlog unmounted collections (25-50 specimens per set) from Bartholomew, Breiding,

Outreach Update

Modern technology has assisted botanical communication and increased herbarium visibility. During 2015, Dr. Ford-Werntz responded to 88 plant identification queries and 146 requests for other information. The WVU Herbarium also hosted 15 visitors for scientific specimen study and welcomed 14 small group tours.

Dr. Ford-Werntz conducted herbarium programs for students from Glenville State College (April) and for the Monongalia County Master Naturalists (August). She assisted with spring wildflower walks at the WVU Core Arboretum and participated in the annual Pennsylvania Botanical Conference (November). The herbarium curator also served on the Board of Directors for the West Virginia Native Plant Society, attending field trip meetings in April and July.

In the past year, many duplicate specimens (identical collection labels) were located while WVU Herbarium folders were sorted for digitization. As a result, more than 1,000 specimens were sent to other herbaria on exchange programs. The ten recipient institutions were from two foreign countries and six states. This is a strong testament to the important role of the WVU Herbarium in the global botanical community.

Clarkson, Grafton, Rader and White. The WVU Herbarium now has 173,523 accessioned vascular specimens, with 90,254 of those databased.

In addition, there were 44 requests from botanical specialists for collection label data. Finally, as part of this busy year, 20 shipments of loan specimens were processed for plant taxonomy research. In recognition of its long and productive history, the WVU Herbarium was featured in the July 2015 *Vasculum* newsletter (issued by national herbarium curators' professional society).