



Willow-leaf Sunflower

<https://www.pittstate.edu/biology/the-sperry-herbarium.html>



Annual everlasting (*Xeranthemum annuum*)

(Musa geçit - Own work, CC BY-SA 3.0)

2024 Annual Report

From the Director, Dr. Neil Snow

Overview of 2024

Some good news to share: PSU has a scholarship fund for students working in the herbarium. Donations are greatly welcomed in any amount, particularly given the increased costs of attending college overall in real dollars. For information please contact **Mary Jo Dancer** (mdancer@pittstate.edu). Many herbaria now have "Friends of the Herbarium" groups for support, and like theirs, all donations are appreciated and put to excellent use.

Speaking of donations, thanks are due to **Dr. John Kartesz**, founder and director of the Biota of North America Program, commonly called BONAP. John generously provided a gift to help cover the cost of herbarium paper. As a curator, the greatest value of BONAP for me is its listing of accepted taxa coupled with (the sometimes extensive) synonymy and distribution maps to the county level. The American Society of Plant Taxonomists awarded Dr. Kartesz the *Peter H. Raven Scientific Outreach Award* for "Outstanding Contributions to Public Education in Systematic Botany", which I had the honor to present to him at BOTANY 2024 in Grand Rapids, Michigan (see image, p. 3).

And yet another type of donation: We greatly appreciate the 910 duplicate specimens sent by **Ernie Nelson** from the Rocky Mountain Herbarium, including four collected by yours truly back in 1989. Exchange programs enrich each herbarium and provide important additional comparative material for research. For example, student **Grace Gibbs** collected a plant in Oklahoma this year along the shores of Hula Lake that we believe represents a state record (to be reported later). Having comparative material of that species based on a previous exchange helped us confirm its identity. **Dr. Mat Sharples**, formerly of Adams State University in Colorado but now at Arkansas Technical University, sent 116 specimens on exchange. Likewise, the Sperry Herbarium sent 121 duplicate specimens to Bucknell University, 180 to the University of Tennessee, 35 to the Rocky Mountain Herbarium, and fewer than 5 to a couple of other institutions. Snow received a few gift specimens of Myrtaceae for his research. Other herbaria interested in an exchange are welcome to contact me at nsnow@pittstate.edu.

Herbarium size and other numbers

Based on current data the herbarium has ca. 52,750 specimens.

As of this writing (late 2024), our plant specimens have been queried electronically 613 times. Much appreciation goes to the staff at Symbiota (and SEINET) at Arizona State University for continuing to develop the data base platform, and to the US National Science Foundation for supporting its development and refinement.

Approximately 800 specimens were collected and added to the collections. These included approximately 525 by students (mostly by **Rylan Mason**, **Clarissa Wedman** and **Gabe McClain**) and 278 by Snow. Coupled with the ca. 1030 specimens received as gifts, the holdings increased by about 1830 specimens in 2024.

We mounted 2279 specimens in 2024 compared to 1763 last year. Our goal was 2000 but we threw down a challenge to ourselves in the Fall semester and beat the goal. (Good job, everyone!) **Kylie Price** (see image, p. 3) was the champion of mounting in 2024, sometimes mounting 100 or more a week during Fall semester.

Filing specimens is as time-consuming as mounting. Our champion filer this year is **Alaina Fulkerson**, who likely filed 2000 or more specimens.

As is true every year, students (mostly) and I recorded many first distributional occurrences, including six state records (from KS, OK, and MT) and approximately 35 county records, to be formally published later. **Clarissa** has been re-surveying PSU's Monahan Property northeast of Cherokee, comparing her list to those listed many years ago by previous curator Dr. Steve Timme. With support from K-INBRE, **Rylan** has continued her floristic surveying of Bates County, Missouri, with permission from the Missouri Department of Conservation to collect on its properties. Approximately 30 county records have been documented thus for Bates county, translating to about 1 record for every 10 specimens collected. (Continues on the next page....)

(From previous page)....The most unexpected find this year was what we believe to be the first report for North America of the composite *Xeranthemum annuum* (see front page, upper right). This popular dried-flower species from southwest Asia was growing along a walking path in northwest Montana on an airstrip. It will be published at a later time.

Volunteers

As in the past few years, **Mike Robinson** has volunteered many hours this year to assist primarily with mounting.

Specimen identifications and processing

Thanks to **Bill Clark** for allowing free access to his program Earth Point, which shows county lines online and allows easier retroactive georeferencing of our older specimens that still lack geocoordinates.

Snow made identifications of specimens of *Eugenia* from Madagascar for a doctoral student in Switzerland and colleagues at the Museum national d'Histoire naturelle in Paris.

Visitors

Dr. Sarah De Groot from Kansas State University presented a seminar in September and annotated specimens of *Eriastrum* (Polemoniaceae), which was the topic of her dissertation.

Elizabeth McMurchie, a doctoral student at Iowa State University, gave a seminar and viewed specimens of Poaceae in the herbarium in April.

Dr. Hannah Rae Thomas, PSU grad, visited with her husband Linnan before their move to China. Dr. Thomas is an Assistant Professor at Zhejiang University in the Department of Horticulture in Hangzhou, China, and studies grafting.

Dr. Town Peterson (University of Kansas) made a brief visit when he gave a seminar in November; he is PI of a large NSF project databasing plant specimens from mainland Africa, which includes georeferencing specimens that Sperry collected in the Democratic Republic of the Congo over 70 years ago.

Fieldwork

In late June Snow participated in the 28th annual University of Washington herbarium's plant collecting foray with approximately 25 others from UW and Univ. of Oregon (see image; next page) in Umatilla National Forest in eastern Oregon, an area previously with relatively low plant collection densities.

He also assisted **Marguerite Trost** with her MS research (University of Wyoming; image p. 3) in Montana, where they collected approximately 330 numbers in Lincoln County on the Kootenai National Forest.

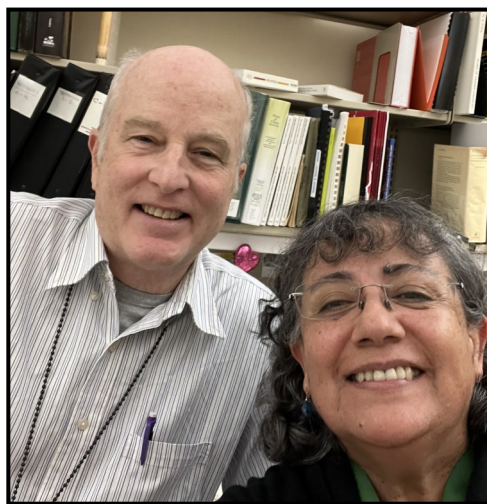
A population sample (n=15) of *Agoseris glauca* var. *glauca* in Montana was sent to **Dr. Timothy Evans** at Grand Valley State University to assist with one of his masters' degree student's research. Four adjacent counties in the upper part of the Lower Peninsula of Michigan have this taxon, which are significantly disjunct from the nearest ones in the western US, extending to east-central Minnesota.

Specimens loaned

Thirty-one specimens were sent to Dr. Doug Goldman, USDA-PLANTS in Greensboro, NC, for his research on *Myosotis* (Boraginaceae) and *Calopogon* (Orchidaceae).

Out and about

I welcomed the opportunity to spend nearly a week at the Missouri Botanical Garden during Thanksgiving Break, catching up on some research projects, and with colleagues. It was a pleasure to have lunch on The Hill (Italian food!) with **Dr. Tom Croat**. Tom has worked at the Gardens for nearly 50 years, is a specialist of the Araceae (e.g., Jack-in-the-Pulpit), has collected over 100,000 (sic) plant specimens, and described some 3000 species new to science. It was fun also to catch up with **Drs. Carmen Ulloa Ulloa** (below), **John MacDougal**, **John Pruski**, **Jim Solomon** and others.



Professional Activities (Students underlined>)

Barberá P* [+ ca. 25 coauthors, including **Snow N**]. 2024. Digitization and enrichment of U.S. Herbarium data from Tropical Africa to enable urgent quantitative conservation assessments. International Botanical Congress: Madrid, Spain. (Poster)

Daines M & **Snow N**. 2024. Noteworthy Collections: Idaho. *Madroño* 71: 10–11.

Grass Phylogeny Working Group III [including **Snow N**]. 2024. Nuclear phylogenomics of grasses (Poaceae) recovers current classification despite gene tree incongruence. *New Phytologist* <http://doi.org/10.1111/nph.20263>

Jiménez-Mejías P [+ 1562 coauthors, including **Snow N**]. 2024. Protecting stable nomenclatural systems enables universal communication: A collective international appeal. *BioScience*. <https://doi.org/10.1093/biosci/biae043>

Wedman C & **Snow N**. 2024. The significance of leaf venation patterns in the genus *Uromyrtus* (Myrtaceae) in New Caledonia: A poorly known genus currently under taxonomic revision. K-INBRE, Manhattan.

Personnel, Pressing and Plant-Related Activities in 2024



Top left: Rylan Mason, Clarissa Wedman, Kylie Price and Mike Robinson celebrating having mounted 2000 specimens in 2024. **Top right:** Snow with colleagues Drs. Robert Naczi (New York Botanical Garden) and Sarah Jacobs (California Academy of Sciences) at BOTANY 2024 in Grand Rapids. **Center left:** Marguerite Trost pressing plants in Lincoln Co., Montana, in July. **Center right:** Snow pressing at the same locality. **Lower left:** University of Washington Herbarium's 28th Annual Plant Collecting Foray (Snow is in white hat in back row). **Lower right:** Dr. John Kartesz with plaque of recognition from the American Society of Plant Taxonomists.