

T.M. Sperry Herbarium (“KSP”)

Department of Biology
Pittsburg State University

2017 Annual Report

From the Director, Dr. Neil Snow

Brief overview of 2017

KSP represents a rich regional legacy of plants from southeast Kansas, adjoining states, and to some extent North America overall.

Student participation in most aspects of routine curation, including such mundane tasks as sorting specimens prior to filing by family, led to significant gains in overall curatorial productivity.

Part I: Teaching and Education

Visitors – Elizabeth Middleton, Missouri Department of Conservation (*Desmodium*) viewed specimens of *Desmanthus*. KSP had approximately 35 internal (PSU) student visitors to the collections. Four students visited from St Mary’s-Colgan High School in Pittsburg; 2 potential graduate students visited, and a few internal visits occurred from PSU staff.

Part II: Student and Faculty Research

Neosho Bottoms Management Area (Grand River Dam Authority) – A contract with the Grand River Dam Authority was completed, resulting in the following, which included graduate student Sam Young and recently-graduated Chance Curran (BS 2016).

Snow, N., S. Young, C. Curran, J. Kartesz. 2017. Vascular Plant Survey of the Neosho Bottoms Management Area (Grand River Dam Authority), Ottawa County, Oklahoma. *Phytoneuron* 2017-26:1–27.

<http://www.phytoneuron.net/2017Phytoneuron/26PhytoN-NeoshoFlora.pdf>

Other publications

Snow, N., P.M. Peterson, K. Romaschenko, B.K. Simon. 2017. Monograph of *Diplachne* sensu stricto (Poaceae, Chloridoideae). *PhytoKeys*: In press

Snow, N. 2017. New records of vascular plants for Kansas. *Phytoneuron* 2017-71: 1–2.

Snow, N., J.W. Byng, J. Munzinger, M.W. Callmender, J.W. Dawson. 2017. New Caledonian *Piliocalyx* Brongn. & Gris transferred to *Syzygium* P. Browne ex Gaertn. (Myrtaceae) with an updated conspectus of the species. *Candollea*: 72: 239–248.

Botanical volumes added to library – 102 botanical volumes formerly housed in the Axe Library were transferred to the Sperry Herbarium, including most volumes of *Flora Neotropica*, *Flora Europaea*, and *Die Natürlichen Pflanzenfamilien* and several biographies of (mostly) influential North American botanists of the 19th Century (Torrey, Gray, Palmer, Coulter). Karisa Boyer tabulated our titles this summer, which presently include 150 volumes and numerous journals.

Eastep Property – Dr. Phil Eastep, a long-time KSP supporter, provided funding for two students to inventory plants on his property in Montgomery County. We thank him for his continued support of botanical studies at the Sperry Herbarium.

Research-related travel – Sam Pryer (néé Young) and Neil Snow visited the Missouri Botanical Garden in January to identify specimens for their research projects. Snow visited a second time in November.

BIOTA of North America (BONAP) – As in past years we send county records for KS, OK, and other areas to Dr. John Kartesz, who incorporates these into

BONAP for worldwide access. Twenty Kansas county records and three state records were sent to BONAP.

New Caledonian Myrtaceae – Snow continued research, including requests for identification of many digital images of living material sent from New Caledonia. He also collaborated with Gendrilla Warimavute (Paris) about IUCN conservation recommendations for native species.

Part III: Outreach

In April Dr. Michael Vincent, Miami University (Ohio) requested a digital image of a specimen collected in Oklahoma as part of his taxonomic treatment of clovers for the *Flora of North America* and *Flora of Oklahoma* projects.

Fieldwork in April by Jared Simon, Bryce Ragatz, and Snow led to discovery of the first population of garlic mustard (*Alliaria petiolata*) in Montgomery County. We are working with the landowner regarding control, if not eradication, given the extremely invasive tendency of this non-native species.

We provided information on herbarium specimens or plant distributions to Ft Scott National Historic Site, Biota of North America (BONAP).

Part IV: By the Numbers

Approximately 16,845 specimens were curated in 2017, equating to approximately daily 46 specimens daily. Categories with the **red asterisk** include student work or assistance.

Herbarium size: ca. 64,500

Specimens collected*: 304 (Snow, Ragatz, Simon)

Specimens annotated: 2008 (correction of identifications; updated nomenclature; barcodes added; or any combination thereof)

Specimen labels made*: 1198

Specimens mounted*: 2044

Specimens added to KS and Regional Reference Collection*: 316 (Total: 1191)

Specimens data based*: 1,940 (Total: 10,137)

Specimens barcoded*: 8453 (Total: 20,375)

Specimens digitally imaged*: 592 (Total: 3003)

Specimens conserved: 12

Specimens de-accessioned: 214

Specimens received on loan for research: 303 (from Missouri Botanical Garden, Univ. Texas-Austin, Sul Ross State Univ., Arizona State Univ., Univ. Arizona; Texas A & M Univ.; Harvard Univ.; Humboldt State Univ.; Miami Univ. (Ohio); Austin Peay State Univ.

Specimens received as gift to KSP: 213

Specimens received as gift for determination: 127

Specimens on loan to KSP returned: 39

KSP specimens returned from loan: 43

KSP specimens sent on loan: 133

KSP duplicate specimens sent as gift: 616 (recipients: US National Herbarium [Smithsonian]); Missouri Botanical Garden; Union University (Tennessee); San Juan College (New Mexico); University of Oklahoma; Oklahoma State Univ.

Specimens used in teaching (ca. 535): Principles of Biology II (15); Plant Taxonomy (ca. 250); Invasive Species Management (20); Grass Taxonomy (250).

External requests for identifications: 4

Estimated backlog of vascular plants: 15,800

Student Assistance in 2017

Over half of the curatorial totals are directly due to the assistance of student workers. Many thanks to

Karisa Boyer, Jiawei Xu, Kelly Talley; Jared Simon and Bryce Ragatz.

Other general information

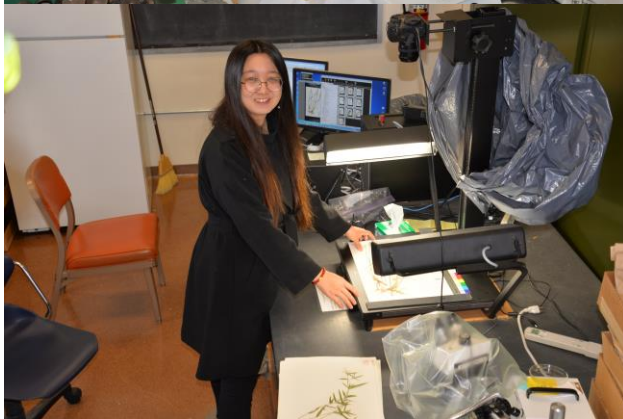
Herbarium tours: Do you know educational or civic groups (schoolchildren, scouts, 4-H, FFA, etc.) that would enjoy a herbarium tour? If so, then please contact the Director (nsnow [at] pittstat.edu). We will work to tailor a presentation to your group's interests.

State records for Kansas from KSP (2017)

Shown below are *Cenchrus ciliaris* (top left), *Carex atherodes* (top right), and *Spiraea prunifolia* (bottom).



Jared Simon (above left) and Bryce Ragatz (right) collecting plants in Montgomery County, April 2017.



Student curatorial support: Karisa Boyer (above), MS student from Joplin, MO; and Jiawei Xu (below), exchange student from Soochow University, China.

