

# *SOUTHEASTERN BIOLOGY*



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## **THE 81<sup>st</sup> ANNUAL MEETING OF THE ASSOCIATION OF SOUTHEASTERN BIOLOGISTS**

*~Cancelled by the COVID-19 Pandemic~*

**JACKSONVILLE UNIVERSITY, JACKSONVILLE, FL  
UNIVERSITY OF NORTH FLORIDA, JACKSONVILLE, FL**

**MARCH 25-28**

**MEETING SITE:  
HYATT REGENCY JACKSONVILLE RIVERFRONT  
JACKSONVILLE, FLORIDA**



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**PURPOSE**

The purpose of this association shall be to promote the advancement of biology as a science by encouraging research, the imparting of knowledge, the application of knowledge to the solution of biological problems, and the preservation of biological resources. The ASB has representation in Section G Committee of the AAAS. Varying types of membership are available to individuals and institutions. See inside back cover.

**TIME AND PLACE OF FUTURE MEETINGS**

- |             |                                    |
|-------------|------------------------------------|
| <b>2021</b> | March 24-27 Chattanooga, Tennessee |
| <b>2022</b> | Little Rock, AR                    |
| <b>2023</b> | Winston-Salem, NC                  |

## PP168 - Flora of Alligator Creek Wildlife Management Area, Wheeler County, Georgia

Richard Carter<sup>1</sup>, Frankie Snow<sup>2</sup>, Jacob Thompson<sup>3</sup>

<sup>1</sup>Valdosta State University, Valdosta, GA, <sup>2</sup>South Georgia State College, Douglas, GA, <sup>3</sup>Georgia Department of Natural Resources, Brunswick, GA

Recently acquired by Georgia Department of Natural Resources, Alligator Creek WMA comprises about 3,100 acres of sandhills and associated habitats located at the confluence of Little Ocmulgee River and Alligator Creek in the upper coastal plain of southeastern Georgia. Our field efforts since 2017 have resulted in vouchering of 560 vascular plant species, discovery, description, and mapping of populations of 11 rare taxa and description and mapping of more than 15 community types. Rare or otherwise noteworthy plants documented for the area include *Agalinis tenella*, *Elliottia racemosa*, *Litsea aestivalis*, *Marshallia ramosa*, *Penstemon dissectus*, and *Rhynchospora harperi*. Community types include various phases of Xeric Sandhill Forest (from early to relatively intact late successional), Darlington Oak-Mixed Hardwood Upland Forest, Loblolly Pine-Darlington Oak Woodland, Sandhill Swamp Tupelo Hillside Seepage Forest, Loblolly Bay Swamp Forest, Pond Cypress Depression Forest, Maidencane Pond, Slash Pine and Early Successional Flatwoods, Wet Slash Pine-Pond Pine Flatwoods, Early Successional Seepage Swamp, Blackwater Bottomland Hardwood-Pine Forest, and Blackwater Ogeechee Tupelo Floodplain Forest.

## PP169 - Inventory, invasive plant removal, and new species discovery at the Webster serpentine outcrop in western North Carolina

Katherine Mathews<sup>1</sup>, James Costa<sup>2</sup>, Natalie Davis<sup>3</sup>

<sup>1</sup>Western Carolina University, Cullowhee, NC, <sup>2</sup>Western Carolina University and Highlands Biological Station, Cullowhee, NC, <sup>3</sup>UNC-Chapel Hill, Chapel Hill, NC

The 12-acre Webster Olivine site in northern Jackson Co., NC, is an outcropping of the large Webster-Addie ultramafic ring. Such outcrops weather into nutrient-poor, heavy-metal rich soils that are unfavorable for the growth of many plants, resulting in savannah-like "barrens" that support rare and endemic species. The Webster outcrop supports a Virginia pine-subtype serpentine community and houses three special status species (*Quercus imbricaria*, *Sporobolus heterolepsis* and *Viola walteri*). Following human disturbance and fire omission, the area is now largely overgrown with weedy species, especially *Smilax* spp. and ragweed, which may be inhibiting the growth of native herbaceous vegetation. In summer and fall of 2018, we conducted a floristic inventory of the site, adding 16 species to a list made in 1994, and established vegetation plots to observe the effects of invasive plant removal on the growth of native herbaceous species. Two 50-m transects were made along a slope across three ecotones (grassland, transitional, forested). Six paired, 2 x 3 m plots were established along each transect, and one plot of each pair was cleared by cutting and one left uncleared. Within each plot, we recorded herbaceous species presence, percent cover, and canopy openness. The experimental plots were recleared of invasive species in 2019, and plots will be resurveyed for new plant growth in 2020. During the inventory, we discovered a likely new species of fleabane similar to *Erigeron strigosus*. Whereas the common fleabane consists of polyploid apomicts, the new species has a diploid chromosome number, like several other recently described, sexually reproducing diploid fleabanies found on various rock outcrop habitats around the southeast. Conservation and habitat restoration on the Webster Olivine site is vital to maintenance of the open, glade-like habitat required by this apparent narrowly endemic species as well as for other rare species specializing on the serpentine outcrop.

## PP170 - The Creek Lodge Flora Project

Liam McTigue, Christopher Hardy

Millersville University of Pennsylvania, Millersville, PA

Plant collecting has declined in America over the past few decades. Because specimens are the fundamental records of biodiversity, this decline will have serious consequences in the fields of systematics, land management and education. Thus, a floristic inventory of Millersville University's newly acquired Creek Lodge Property was a necessity. As this 2.05 acre property has great educational potential for use in various biology lab activities, knowledge of its flora is required. This study was concerned with identifying every species of vascular plant on the property by using a point-transect sampling method. A total of 152 unique vascular plant species were identified on the property. Of these 152 species, 124 genera in 58 families, and 33 orders were represented, including several new county records for species previously unknown from the county. Native plants comprised 51.3% (78 spp.) of the flora while exotic plants composed 48.7% (74 spp.) of the flora. An interactive atlas on the Web was also developed to facilitate data management and public accessibility of the findings (Creek Lodge Nature Atlas, <http://www.natureatlas.org/plants/creeklodge/>). Specimens are vouchered in Millersville University's James C. Park Herbarium (listed as MVSC in Index Herbariorum).

## PP171 - A study of vascular plants of the Wingate University Campus Lake and Nature Trail in Wingate, North Carolina

Emily Barbee, Christy Carter

Wingate University, Wingate, NC

Vascular plant diversity at Wingate University's Campus Lake in Wingate, Union Co., North Carolina, was investigated in order to determine plant species presence. Walk-throughs of randomly sampled forested areas, open areas, and nature trails throughout the approximate 4.9 ha site were conducted weekly or biweekly from March through October 2019, and mature specimens were collected for identification. Herbarium specimens stored in the herbarium cabinets of Wingate University, which date back five years collected from this site, were also included in the final species list. Plants collected were photographed in the field and had their GPS coordinates recorded; this information was also recorded into iNaturalist, a website that organized photographic data and enabled a map of species presence to be generated. One to three specimens were collected for each species, placed in bags, and transferred to a plant press. Fresh spec-