Vascular Flora Collected at the UMFS Over 100 years

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1) Introduction:

The University of Mississippi Field Station (UMFS) is a 300-hectare research and educational facility, which includes upland pine and mixed hardwood forest, bottomland forest, open fields, springs, natural and constructed wetlands, and over 200 ponds and mesocosms. The comprehensive plant species list compiled in this study represents all of the documented vascular plant species that have been collected at the UMFS over the past century.

Viola bicolor

2) Objectives:

1) Compile a Masterlist of plant species found at the UMFS; and
2) include specimens collected by all botanists reported in the Southeast Regional Network on Expertise and Collections [SERNEC] database.

3) History

The University of Mississippi Field Station (UMFS) was started in 1947, originally as a bait fish farm called Ole Miss Fisheries, Inc. and later Minnows, Inc. The original plot of land was 165 acres, where the Hickey family lived until Minnows closed in the 1980's. Currently the total acres owned by UMFS is over 750. Collections of 539 plant species were completed during 100 yrs.

The earliest collections were made by E.N. Lowe, who at the time was the state geologist. He collected plants at the Bay Springs Baptist Church [currently surrounded by the field station] as far back as 1913 when he collected *Viola bicolor*. Seventy-eight species can be found in SERNEC that Lowe collected.

After Lowe, Thomas Pullen took over collecting plants. Pullen's earliest recorded specimen from the UMFS is from 1963, with a total of 38 species collected. It can be verified that specimens were collected from UMFS, if their location was "Bay Springs Baptist Church" or "Minnows," or "Bramlett Pond."

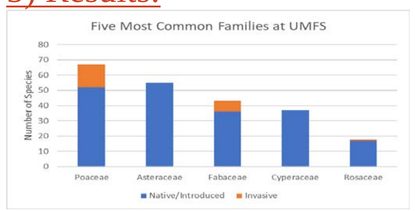
Maeburn Huneycutt followed after Pullen. Dr. Huneycutt came to the University of Mississippi in 1955 as a trained mycologist who collected 95 species from the UMFS, with the earliest date recorded being 1986 and the latest being 2001.

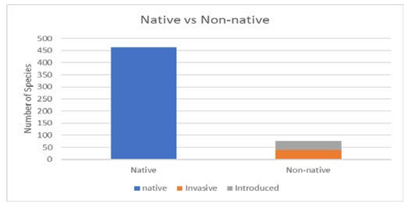
Microstegium vimineum

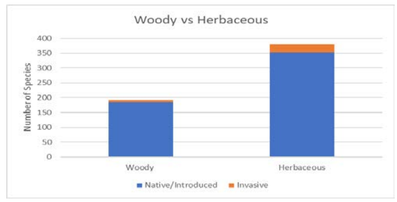
4) Methods and Materials

SERNEC is an online herbarium database that contains 233 herbaria in 14 states within the southeastern United States. This database has served as an online record of specimens from the Pullen Herbarium at the University of Mississippi since 2013. SERNEC allows researchers to search for specimens based on several criteria, including by location and date. This allowed the authors of the current list to search for specimens in the Pullen Herbarium with their designated location as "Minnows, Inc."

5) Results:







6) Discussion and Summary:

A total of 539 species have been documented and collected at the UMFS. Families with the largest number of species present at the UMFS include Poaceae, Asteraceae, Fabaceae, Cyperaceae, and Rosaceae. Of the total number of species, 464 are native. Of the 75 non-native species, 39 are considered invasive. The invasive species at UMFS of most concern are *Microstegium vimineum* and *Pueraria montana var. lobata*.

Since the early 1900's, botanists such as Lowe focused attention on documenting species found in North MS. The populating of species names by Dr. Lucile McCook into the SERNEC database has allowed researchers to access information about specimens collected at the UMFS over 100 years ago.

Pueraria montana var. lobata

7) Acknowledgements:

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8) References:

Menon, R. and M.M. Holland. 2012. Study of understory vegetation at the UMFS in North Mississippi. Castanea. Vol. 77(1). p. 28-36.

Southeast Regional Network on Expertise and Collections database. Funded by the National Science Foundation.

United States Department of Agriculture (USDA) Plant Database. 2018-2019. www.plants.usda.gov/.