

Mentor: [Dr. Eran S. Kilpatrick](#), Professor of Biology

Project Title: Herbarium Specimen Preparation in the USC Salkehatchie Herbarium

Background: The USC Salkehatchie Herbarium ([SALK](#)) houses over 2,000 vascular plant specimens from the Carolinas, Georgia, Arkansas, and Missouri. Dr. Kilpatrick is the curator of the herbarium and collects new specimens each year. Student interns are recruited to assist with specimen preparation. The collection is digitally linked to the SouthEast Regional Network of Expertise and Collections ([SERNEC](#)) and published in the Global Biodiversity Information Facility ([GBIF](#)). GBIF is an international open access biodiversity data portal.

Project Tasks:

- Read and study the current methods for preparing herbarium specimens and attend training sessions with Dr. Kilpatrick to learn how to prepare museum quality botanical specimens (Figure 1).
- Mount pressed and dried plant specimens on standard (29 x 42cm) herbarium sheets and then affix a specimen label, barcode and herbarium seal to each sheet.
- Enter skeletal (preliminary) specimen records into the SERNEC database. The skeletal record includes a bar-scanned catalog number, scientific name, collector ID, and state/county designation.
- Edit specimen records in the SERNEC database. The full collection record, which is obtained from the digital specimen label (prepared by Dr. Kilpatrick), is entered into the database. The full record includes the collection date, location description, GPS coordinates, habitat description, list of associated species, and collectors. Record entries are then proofed for accuracy.

Project Outcomes: Many of the specimens are rare or unique Atlantic Coastal Plain endemics. Specimen preparation will yield archival specimens and record entry into the SERNEC database will document new populations, update historic records, and build upon the data platform needed to make informed decisions about conservation needs. Student assistants will present a summary of their project work at a local or state scientific conference such as the USC Salkehatchie Student Research Exhibition, the Annual Meeting of the South Carolina Academy of Science, and/or Discover USC.



Figure 1. Specimen in preparation and completed specimens.