

BIOL 4950 Directed Study

Following are examples of Directed Study projects designed and overseen by Dr Carter.

- Herbarium Internship
- Flora of the Lake Louise Field Station
- Virtual Flora of Camden County, Georgia
- Taxonomy of the *Cyperus squarrosus* group
- Catalog of Bibliographic References in the Valdosta State University Herbarium
- Seed Dispersal by Mourning Dove
- Invasive Weeds of Georgia
- Vascular Flora and Plant Community Inventory of General Coffee State Park
- Vegetation Survey of Grand Bay Wildlife Management Area Longleaf Pine Stand
- Vascular Flora of the Okefenokee Swamp
- Distribution, Ecology, and Variation in *Amaranthus* (Amaranthaceae) in south Georgia

Descriptive Narrative

The Lake Louise Field Station (LLFS), an area of ca. 150 acres surrounding a karst pond, is located approximately 7.5 airmiles south of Valdosta in Lowndes County, Georgia: N30.724730° W83.256315°. The purpose of this study is to document the flora of the LLFS. As conceived here, this project will continue for an entire growing season, commencing Summer Term 2013 and ending Spring Semester 2014. Credit hours will be earned as follows: Summer 2013 (1 sem hr), Fall 2013 (1 sem hr), and Spring 2013 (2 sem hr). During the growing season (February – October) trips will be taken to LLFS at intervals of two to three weeks, during which the flora will be observed and documented. The primary objective of this study will be to document all vascular plants occurring at the LLFS; secondarily, bryophytes will be sampled as practicable. The flora will be documented by collecting voucher specimens according to standard procedures. Detailed data will be recorded at the time of voucher collection, including locality, GPS coordinates, community type, associated species (especially woody plants), date of collection, name of collector, and serial collection number. Data will be recorded in standard format in a field notebook, and voucher specimens will be identified and labels prepared. All voucher specimens, properly labeled, will be deposited in the Valdosta State University Herbarium (VSC). Additionally, quantitative vegetation sampling of the terrestrial communities will be done as time allows. Interim reports will be submitted by the last class day of each of the first two semesters, and a final report will be submitted by the last class day of the final semester of the project. The final report will consist of an annotated list of vouchered flora of LLFS and descriptions of the major terrestrial communities, physiography, topography, soils, and climate. Rare, threatened and endangered species and invasive non-indigenous species will be highlighted. Using similar floristic studies as models, the final report will be written in the format of a regional botanical journal, e.g., *Castanea*, *Journal of the Botanical Research Institute of Texas*, or *Southeastern Naturalist*. Results of the study will be presented orally at one or more of the following meetings: Valdosta State University CUR Symposium, Georgia Academy of Science, or Association of Southeastern Biologists.