

Flora of the Blue Ridge (June 13 – June 24, 2022)

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Course description and goals: The course is designed for students of all sorts, professional biologists, and amateur enthusiasts. The goals are to introduce plant diversity with a community-based approach through field observations of the flora of the Blue Ridge: to emphasize basic distinguishing features among lycophytes, ferns and seed plants; to focus on field characteristics of common and rare species and their habitats; to use keys to identify species; and to better understand the ecology of the major plant communities of the region and the biogeography of the species.

Daily schedule and expectations: Lectures/activities starting @ 8:30; Field trips everyday often with moderate to strenuous hiking; lab activities include work on collections day and night, including discussions on plants as often as possible; group keying activities and occasional lectures on mountain flora, plant communities, and plant interactions. There will be several full day trips (e.g., Blue Ridge Parkway) and numerous local trips. Students are expected to engage in field activities to comprehend botanical knowledge using the required books and additional materials.

Prerequisites and prior training: One course in Introductory biology or ecology, training in natural history or permission of instructor.

Instructional material:

Field Guides:

- 1) *Native trees of the Southeast* by LK Kirkman, CL Brown and DJ Leopold, Timber Press, ISBN-13-978-0-88192-828-0. (**recommended**).
- 2) *Wildflowers and Plant Communities of the southern Appalachian Mountains & Piedmont* by TP Spira, The University of North Carolina Press, ISBN 978-0-8078-7172-0 (**recommended**).
- 3) *The Weakley Flora of the Carolinas, Virginia, Georgia, northern Florida, and surrounding areas*, by AS Weakley – pdfs will be made available

Other sources: Copies will be provided in the lab

- 1) *Manual of the Vascular Flora of the Carolinas* by AE Radford, HE Ahles and CR Bell. The University of Carolina Press (**not required**);
- 2) *Flowering Plant Families* by WB Zomlefer. The University of Carolina Press (**not required**);

Required supplies:

- 1) One small notebook for taking field notes, preferably one that is rain proof.
(Example: "Rite-in-the-Rain")
- 2) A notebook for organizing course material, drawings, etc.

- 3) One hand-lens for making field observations, e.g., Bausch & Lomb 10X Hastings triplet hand lens magnifier (to be purchased before coming to HBS), or something like it.
- 4) A laptop will be useful for using the Weakley during keying exercises and management of species lists and other course materials.

Additional gear and preparations:

- 1) you will need field clothes & some gear (including sturdy hiking shoes, rain gear, water bottle, day-pack, warm clothes just-in-case)
- 2) you should be prepared to take your lunch into the field most days

Assessment: Quizzes in the field and lab (40%); and final practical exam (60%).

Student will be expected to identify plants in the field and lab, apply Latin names to family, genus, and species; understand structure-function relationships, including the interactions between the flora and associated biota; and to recognize major plant communities of the Blue Ridge.

Accommodations for students with disabilities: Due to the experiential nature of the learning activities, this course is not recommended for students with limited mobility. For students with learning disabilities, the professor is prepared to work within the limits of a short-course, and accommodate the needs for extra time on the assessments.

Tentative Schedule:

Sunday	June 12: Suggested arrival at HBS
Monday	June 13: Introductions; Vascular plant overview
Tuesday	June 14: Field trip; Using keys
Wednesday	June 15: Seed-Free plants (lycophytes & ferns); Field trip
Thursday	June 16: Seed plants (gymnosperms and angiosperms); Field trip
Friday	June 17: Field trip; Quiz 1
Saturday	June 18: Quiz 2 (half day)
Sunday	June 19: Day off
Monday	June 20: Blue Ridge Parkway
Tuesday	June 21: Field trip; Quiz 3
Wednesday	June 22: Field trip
Thursday	June 23: Field trip; review session
Friday	June 24: Field trip; Final Exam