

SUMMER 2010 COURSE DESCRIPTION

Ecology of Northeastern Trees

Geoffrey A. Hammerson

To a large extent, trees define many of Earth's nonmarine ecosystems. They dominate landscapes ranging from low-elevation wetlands to high mountains. The trees we see in natural areas reflect past and present environmental conditions, and they are involved in ecologically important interactions with vast numbers of animal, plant, and microbial species. This field course focuses on the trees of northeastern North America. Our five day-long field trips take us to a wide array of habitats where we learn to identify all tree species and observe/discuss their ecological relationships, including environmental requirements, phenology (flowers, fruits, foliage), and relationships with other species (such as pollination, seed dispersal, seed predation, herbivory, galls, soil fungi, and importance in the life cycles of various other species).

This course entails a substantial amount of long-distance walking and physical exertion, usually in hilly terrain lacking comfort facilities. Course requirements include five written and illustrated reports summarizing our field studies and a short review paper or individual field project.

Ecology of Northeastern Trees: Syllabus

August 2-6, 8:00 a.m. to 4:00 p.m.

Wesleyan University, Summer 2010

Geoffrey Hammerson (ghammerson@wesleyan.edu)

Please note that this field course entails a substantial amount of walking in hilly terrain. Participants must be capable of prolonged physical exertion and tolerant of a lack of comfort facilities during field trips lasting several hours.

Schedule

August 2: We meet in the V parking lot on Vine Street (near the tennis courts) at Wesleyan at 8:00 a.m. Come prepared to participate in an all-day field trip. Field trip locations will be in central and northwestern Connecticut..

August 3: All-day field trip (location to be determined)

August 4: All-day field trip (location to be determined)

August 5: All-day field trip (location to be determined)

August 6: All-day field trip (location to be determined)

Equipment:

Sturdy hiking shoes; rain gear; hat; sunscreen; insect repellent; drinking water; lunch; binoculars (needed for enhanced viewing of upper parts of trees); hand lens (optional); camera (optional); notebook; pen or pencil.

Texts:

To be determined at a later date.

Requirements:

- Field trip reports. Narrative accounts and annotated sketches that summarize our field observations (total of five reports; one for each day; see guidelines and example to be posted on Blackboard). Grades will be based on clarity/organization, completeness, accuracy, and timely submission. Reports are due one week after the field trip. Each report constitutes 10% of the course grade.
- Review paper or field project .

Option 1: Review paper: One approximately 8-page paper that reviews and summarizes recently published information on one tree species or a group of related tree species (e.g., hickories) occurring naturally in northeastern North America, based on several primary

sources (i.e., journal articles). Sources of information must be cited throughout the paper (author-year, footnotes, or end notes), and the paper must end with a complete bibliography of the sources used. To avoid excessive work at the end of the summer term, students are advised to begin and complete as much of this paper as possible before the field trips begin. Counts as 50% of course grade. Due August 17.

Option 2: Field project: In lieu of a review paper, you may instead complete a written summary of an individual field research project focused on one or more native (not planted) tree species. Your study area should be in an area that is convenient for you to visit on a weekly basis. Using written descriptions (and data as appropriate), plus photographs or drawings, you will document in detail the observations you make during the summer (late June to early August). Examples of appropriate observations include: characteristics of, changes in, and organisms associated with tree bark, branches, foliage, flowers, and fruits/nuts (as available for study). The written report must include the following: an introduction that describes the purpose of your study, a methods section that describes when, where, and how you conducted your study; a well-organized presentation of your observations; and a concluding discussion (e.g., your study's significance, limitations, and new questions it generated). Counts as 50% of course grade. Due August 17.

Blackboard website:

It is your responsibility to check the course Blackboard website prior to and after each class. This is where you will find important announcements, follow-up information, maps of field trip sites, and details about upcoming field trips. Be sure to check the Course Documents section for information pertaining to each field trip.