

**FWF 325**  
**Fall 2017: “Wildlife Vegetation and Habitat”**  
**3 credit hours**

Course Day/Time/Location: Tues. & Thurs., 9:40-12:25, 113 Plant Biotech  
Instructor: Dr. Charles Kwit  
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**Prerequisites:** Biology 150 or Biology 114 or Forestry 214

### **Course Description and Goals**

#### COURSE VALUE STATEMENT

The value of the “Wildlife Vegetation and Habitat” course is three-fold. First, students will become more proficient at identifying plants and making connections of why those plants are important for wildlife species. Second, through learned expertise in plant identification, students can count this course towards the ‘Botany’ component of The Wildlife Society’s ‘Associate Wildlife Biologist’ certification program. *Third, the course will provide students with the opportunity to interact with organizations that value and utilize information gained in this class through service-learning activities.*

#### COURSE DESCRIPTION:

The course serves as an introduction to the interactions between plants and wildlife, including species of management and conservation concern. Emphasis is on plant species that comprise east Tennessee’s primary wildlife habitats, and the utility of vegetation data in assessing management or conservation success.

#### Course OBJECTIVES:

- (1) To be knowledgeable of the dominant plants (trees, shrubs, vines, herbs) that comprise the habitat of wildlife species of interest.
- (2) To be knowledgeable of the aspects of plants that wildlife are dependent on, and in some instances, vice versa.
- (3) To become aware of how vegetation scientists treat vegetation data, and how such data can be important for conservation, restoration and management.

#### Course LEARNING OUTCOMES:

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By the end of the course, students should be able to:

- (1) identify representative trees, shrubs, vines, and herbs of direct and indirect importance to wildlife in east Tennessee
- (2) define 'habitat' and apply methods for its quantification
- (3) infer how plant and vegetation data could be used to help manage for wildlife; *this will be accomplished by contributing as a trained professional to the mission of organizations that manage wildlife and/or make use of class-collected and analyzed data (e.g., TWRA, UT Herbarium).*

Degree LEARNING OUTCOMES:

The above course learning outcomes relate specifically to the Wildlife and Fisheries Sciences degree learning outcomes, which are to:

- (1) develop a depth of professional knowledge, the ability to problem solve, and critical thinking skills comparable to other professional wildlife and fisheries science programs
- (2) apply wildlife and fisheries science techniques presented in the curriculum

The EXPERIENTIAL LEARNING PROJECT

On September 1 or 2, each student will participate in a single field trip to either Forks of the River WMA or Lick Creek WMA to interact with TWRA officials and Mourning Dove hunters and obtain Mourning Dove crops from harvested birds. The primary objective of this project is to determine what plants' seeds Mourning Doves are eating in the day or days prior to being harvested via identification of seeds from crops. Groups of four students will work on this question together. This information, and other information obtained in the process, will prove invaluable to TWRA and their mission to successfully manage wildlife, and the plant-related data could form the basis of answers to a variety of management-oriented questions. A secondary objective, once seeds have been identified, is to integrate those seeds into the UT Herbarium's seed collection.

This will be an ongoing project throughout the semester. It will have periodic milestones and reflective assignments. It will culminate with group presentations (given to TWRA officials) and individually written reports. See more below.

CLASSROOM AND ONLINE GROUND RULES

\*\*\*\*\**(We will fill this in on Day 1)*\*\*\*\*\*

### **Required Materials**

No textbooks are required for the course. I will utilize (and occasionally provide access to) a variety of materials, including (but not limited to)

Dickson, J.G. 2001. *Wildlife of Southern Forests: Habitat and Management*. Hancock House Publishers, Surrey, B.C., Canada.

Harris & Harris. 2001. *Plant Identification Terminology*. Second Edition. Spring Lake Publishing, Payson, Utah.

Martin et al. 1951. *American Wildlife and Plants*. Dover Publications.

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Miller et al. 2005. Forest Plants of the Southeast and their Wildlife Uses. University of Georgia Press.

Smith, J.P. 1977. Vascular Plant Families. Mad River Press, Eureka, California.

Wofford & Chester 2002. Guide to Trees, Shrubs, and Woody Vines of Tennessee. University of Chicago Press.

All other materials will be made available on Canvas and shared via email.

### **Attendance Policy**

Many of the points associated with the course are tied to in-class activities (see below). As such, you can do the math; miss class and miss out on points. While there is “wiggle room” to miss a class and still earn a desired grade, absence from certain meetings may cost notable points and carry grade-changing repercussions. There will be no “make-up” lab meetings (field trips). If you know you are going to miss a class, you must inform me BEFORE the class meeting; if you have homework due on a day you miss, it is your responsibility to get me that homework by its due date unless arranged otherwise; if you have a group-related duty on a day you miss, it is also your responsibility to let your group-mates know before class.

### **Laptop/Electronics Policy**

Use of laptops or other portable electronic devices is only allowed at the discretion of the instructor. We will use them on occasion; when we do, it is expected that they will be used solely for class purposes.

### **Assignments/Grading**

#### **EVALUATION:**

Library assignment 1	10
Field quizzes (6 @ 10 pts apiece)	60*
Exams (3 @ 20 pts apiece)	60
Assigned wildlife species presentation	20**
Experiential Learning project	60***
Attendance (discussion)	10****

Total 220

\*Lowest of the 7 quizzes will be dropped

\*\*10 points for group presentation; 10 points for contributions towards pre- and/or post-presentations of others

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\*\*\*The 60 points will be broken down in the following manner:

10 points are affiliated with simply going on the field trip to the check station and interacting with TWRA officials, dove hunters, and each other

10 points are affiliated with at least 3 reflective short assignments aimed at assessing which stakeholders might be interested in what Mourning Doves eat and why.

20 points are affiliated with a legitimate effort at identifying seeds in several Mourning Dove crops, a short presentation, and proper deposition of seeds into the UT Herbarium's seed collection. This portion will be done in groups (typically of 4 students), and post-seed-identification will involve (1) each group submitting a spreadsheet containing birds as rows and plant species as columns, with cells filled in with the number of seeds of those species found in a given bird; sometimes only a genus will be possible, and there will be unknowns too (5 points); (2) a short group presentation outlining the questions of interest (what do doves eat and who cares?), how you approached this, AND BASED ON ASSUMED DATA FROM THE CLASS, what types of questions you could ask in a proposal (Intro, Methods, Results, Ramifications/questions you could ask; Literature Cited; 10 points); and (3) deposition of seeds identified to the species level into the University of Tennessee's Herbarium (5 points). All of these items are due by Thursday 30 November at the latest.

20 points are affiliated with an individually written proposal, due anytime after the group presentations AND BEFORE the final exam slot: Tuesday 12 December at 8:00 AM. The proposal should utilize class-obtained data. It should have an Intro (culminating in what research question you would like to address), proposed methods, expected results, and a Literature Cited section. Not including the Literature Cited section, aim for between 1000 and 2000 words.

ALL LITERATURE CITED SECTIONS (GROUP PRESENTATION AND INDIVIDUAL PROPOSALS) SHOULD BE IN JOURNAL OF WILDLIFE MANAGEMENT STYLE.

\*\*\*\*Think of this as receiving 0.33 points each time we meet (27 times), + 1 freebie = 10

#### COURSE GRADING:

Students will earn a grade of A, B, C, or No Credit.

Letter grades will be based on points accumulated, as follows:

A	93 – 100%	C	73 – 76%
A-	90 – 92%	C-	70 – 72%
B+	87 – 89%	D+	67 – 69%
B	83 – 86%	D	63 – 66%
B-	80 – 82%	D-	60 – 62%
C+	77 – 79%	F	<60%

#### LATE ASSIGNMENTS

Homework will be accepted late. However, a 10% penalty will be inflicted for every 24 hr period with which it is late.

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## ISSUES RELATED TO GRADES

*“Issues related to grades or academic coursework should first be addressed with the course instructor, then the appropriate department head, and finally the dean of the college in which the course is offered. If an appropriate solution cannot be reached through discussions with these individuals, the Director of the Student Success Center (for undergraduate students) or the staff of the Office of Graduate Student Services (for graduate students) can offer assistance regarding the best “next steps” for problem resolution. Issues related to academic advising should be addressed first with the advisor, then the director of the appropriate advising center, then the dean of the appropriate college, and finally with the Assistant Provost for Student Success.”*

## University Withdrawal Policy

- No W on transcript: **September 1** is the last day you may drop full-term courses without a W on your transcript.
- W on transcript: **November 14** is the last day you may drop full-term courses and receive a “W” on your transcript that is not computed in your GPA.
- Classes end – December 5; last day for a University Withdrawal.

The following additional regulations related to dropping classes after the No W drop deadline:

- Students are allowed four drops during their academic career (until a bachelor’s degree is earned).
- Students holding a bachelor’s degree who return to pursue a second bachelor’s degree are allowed four additional drops.
- Students pursuing more than one major or degree simultaneously are not allowed additional drops.
- The W grade is not computed in the grade point average.
- After the 84th day, no drops are permitted.
- Courses may be dropped on the web (<https://myutk.utk.edu/>).

Failure to attend a course is not an official withdrawal and will result in the assignment of an NC grade.

**Total Withdrawal from the University.** If you need to drop all of your courses for the term (e.g. due to unexpected illness, accident, etc.), you may do so by applying for a total withdrawal from the university for the term. The deadline for total withdrawal is December 5, 2017 (last day of classes), and may be done through MyUTK. If you apply for a total withdrawal, you must also apply for readmission through the Office of Undergraduate Admissions, 320 Student Services Building, (865) 974-2184.

## Disability Accommodations

Disability accommodations: If you need course adaptations or accommodations because of a documented disability or if you have emergency information to share, please contact Student Disability Services at 974-6087.

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## **Student Health Center**

The Student Health Center provides **non-emergent**, outpatient medical care for all currently enrolled, eligible students who have paid the Health Fee portion of the Student Programs and Services Fee. More information can be found at

<http://studenthealth.utk.edu>

or call 865-974-3648 to make an appointment.

## **Counseling Services**

The Student Counseling Center is the university's primary facility for personal counseling, psycho-therapy, and psychological outreach and consultation services. Our mission is to promote the psychological, educational, and social well-being of the student of the University of Tennessee and to help prepare them to be productive members of society. We provide a variety of services for students, faculty, and staff. More information can be found at:

<http://counselingcenter.utk.edu>

or call 865-974-2196.

## **University's Honor Statement**

"An essential feature of the University of Tennessee, Knoxville, is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the university, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity."

Click on [Undergraduate Catalog](#) or copy and paste

[http://catalog.utk.edu/content.php?catoid=1&navoid=156#hono\\_stat](http://catalog.utk.edu/content.php?catoid=1&navoid=156#hono_stat) into your browser.

## **Plagiarism**

"Students are also responsible for any acts of plagiarism. Plagiarism is using the intellectual property of someone else without giving proper credit. The undocumented use of someone else's words or ideas in any medium of communication (unless such information is recognized as common knowledge) is a serious offense, subject to disciplinary action that may include failure in a course and/or dismissal from the university. Specific examples of plagiarism are:

- Copying without proper documentation (quotation marks and a citation) written or spoken words, phrases, or sentences from any source;
- Summarizing without proper documentation (usually a citation) ideas from another source (unless such information is recognized as common knowledge);
- Borrowing facts, statistics, graphs, pictorial representations, or phrases without acknowledging the source (unless such information is recognized as common knowledge);
- Collaborating on a graded assignment without the instructor's approval;

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- Submitting work, either in whole or in part created by a professional service and used without attribution (e.g., paper, speech, bibliography, or photograph).”

For more information on the expectations of academic integrity shared by all members of the academic community at the University of Tennessee, visit [catalog.utk.edu](http://catalog.utk.edu) and click on “Academic Policies and Procedures.”

## SCHEDULE OF CLASSES

### Semester Schedule\*

Throughout the semester we will address the thematic topics: (1) how are plants successfully identified, (2) how are vegetation data collected and quantified, and (3) how is that information utilized. We will learn important plants in the laboratory component of the course, and become familiar with analytics and application of vegetation data.

We will examine case studies throughout the semester. These case studies will be presented by students in groups of three, and be peer-evaluated by all students individually, with comments given back to the lead students. Labs following case studies will typically focus on plants affiliated with the case studies.

In weeks when we meet twice, labs will be held on one of those two days, and may be weather dependent. When going on field trips, we will meet in 113 PBB and leave immediately at 9:40 AM (unless specified otherwise). All field trips will require that students ride in a UT van; **NO ONE WILL BE ALLOWED TO DRIVE ON THEIR OWN AND MEET UP AT A FIELD LAB OR FIELD TRIP LOCATION.**

In-class sessions may occasionally have visiting faculty. Labs may occasionally include visitors with botanical expertise; these people should be treated as instructors.

The “Final Project” may involve repeated travel to a study site (or set of nearby study sites), where the emphasis will be on vegetation identification and quantification. A final “report” with pertinent sections (Introduction, Methods) will be due by the end of the semester (can be turned in before).

**Wk. 1 (8/24).** Intro. **Mourning Dove Habitat.** Begin to define ‘habitat’ and ‘vegetation’ (Hall et al. 1997)

**Wk. 2 (8/29, 31).** **Mourning Dove habitat.** Class 8/23 to meet at 10:00 AM. Continuation of ‘habitat.’ Botanical terminology. Library assignment #1 on assigned wildlife species habitat due before class on 8/31. Lab: Mourning Doves

Fri. 9/1 – Field trip (Forks of the River OR Lick Creek) (depart UT at 3:00 PM)

Sat. 9/2 – Field trip (Lick Creek) (depart UT at 9:00 AM)

**Wk. 3 (9/5, 7).** Herbarium tour. **Northern Bobwhite habitat.** Lab: Northern Bobwhite

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Wk. 4 (9/12, 14). **Wild Turkey habitat.** Lab: Field quiz 1 (9/14)

Wk. 5 (9/19, 21). **Ruffed Grouse habitat.** Lab: Field quiz 2 (9/21)

Wk. 6 (9/26, 28). **Exam 1.** Lab: TBD.

Wk. 7 (10/3). **Mammals 1.** (Fall Break 10/5)

Wk. 8 (10/10, 12). **Mammals 2.** Lab: Mammals. Field quiz 3 (10/12)

Wk. 9 (10/17, 19). **Migratory Birds.** Lab: Migratory birds. Field quiz 4 (10/19)

Wk. 10 (10/24, 26). **Bats.** Field quiz 5 (10/26)

Wk. 11 (10/31, 11/2). **Exam 2.** Lab: TBD

Wk. 12 (11/7, 9). **Aquatic wildlife.** Lab: Field quiz 6 (11/9)

Wk. 13 (11/14, 16). **Pollinators.** Lab: Doves! (11/16)

Wk. 14 (11/21). **Exam 3.** (Thanksgiving 11/23)

Wk. 15 (11/28, 30) Presentations

Wk. 16 (12/5) Make-up day; MAYBE Field Quiz 7

Finals week: Written reports due via email before 8:00 AM on Tuesday 12 December