

SYLLABUS

ENR 5362

Wildlife Ecology Methods
Autumn 2023 (full term)
3 credit hours

Lectures: T-Th 11:30 am - 12:25 pm, 370 Kottman Hall
Labs: F 9:20 am – 1:20 pm, **Olentangy Wetlands**

COURSE OVERVIEW

This is an applied course that will provide students with a broad overview of the field and lab methods used in the study and monitoring of wildlife and their habitat.

Instructors

Dr. Bill Peterman

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Graduate Teaching Assistant

Aidan McCarthy

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Phone number: 571-386-9318

Office hours: Tuesday & Wednesday 1–3 PM. Contact to make appointment

Prerequisites

ENR 2000 or STAT 1450, ENR 3000, or graduate standing.

Course description

ENR 5362 is a required course for Wildlife Science, Wildlife-Pre-veterinary Science, Fisheries and Wildlife Science, and Forestry and Wildlife Management specializations in the Forestry, Fisheries, and Wildlife major in SENR. The course also is well-suited to undergraduate and graduate students in Environmental Science, Sustainable Resource Management, Evolution Ecology and Organismal Biology.

The course introduces students to current field, laboratory, and computer methods used by wildlife scientists and managers to acquire information necessary to understand and manage ecological processes that affect wildlife populations. The course focuses on two primary areas: (1) measurement and analysis of wildlife habitat and (2) estimation and analysis of wildlife occurrence, abundance, and demographic characteristics. Professional ethics and proper application of scientific method are stressed throughout the course.

Course learning outcomes

By the end of this course, students will have knowledge and proficiency with:

- Study design, logistics, observational methods, and field equipment used to study wildlife population-habitat relationships
- Following instructions to accurately and efficiently collect and record wildlife data in the field
- Entering and summarizing field data.
- Critical thinking, interpreting results, and formulating conclusions to support the conservation or management of wildlife
- Applying standards of personal and professional ethics in the field of wildlife ecology and management

COURSE FORMAT

Mode of delivery: This course is 100% resident instruction. You will access Carmen/Canvas for lecture material, lab preparation instructions, materials, and required readings. Weekly quizzes will also be posted online.

Credit hours and work expectations: This is a **3-credit-hour course**. According to Ohio State policy (go.osu.edu/credithours), students should expect around 3 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average.

Attendance and participation requirements: Your grade is partially determined by your engagement, level of participation, and attendance of lecture and lab periods.

- **Participating in weekly discussion:**
You are expected to be present during our scheduled course meeting times. Student success in this course is tied to regular attendance and participation. Your participation grade will be

reduced 5% for each unexcused absence. Excused absences must be approved in advance by the Instructors or Teaching Assistant as soon as possible. Notify us of absence due to illness or family/personal emergency as soon as you are able.

COURSE MATERIALS AND TECHNOLOGIES

Readings

All readings and other materials will be made available on Carmen, Most of our readings will come from

- Silvy, N.J., Editor. 2012. The Wildlife Techniques Manual. Volume 1: Research & Volume 2: Management. 8^h edition. John Hopkins University Press, Baltimore, Maryland, USA. (2 volume set)

Course technology

Technology support

For help with your password, university email, Carmen, or any other technology issues, questions, or requests, contact the Ohio State IT Service Desk. Standard support hours are available at ocio.osu.edu/help/hours, and support for urgent issues is available 24/7.

- **Self-Service and Chat support:** ocio.osu.edu/help
- **Phone:** 614-688-4357(HELP)
- **Email:** servicedesk@osu.edu
- **TDD:** 614-688-8743

Technology skills needed for this course

- Basic computer and web-browsing skills
- Navigating Carmen (go.osu.edu/canvasstudent)

Required equipment

- Computer: current Mac (MacOs) or PC (Windows 10/11) with ability to install software
- Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication
- BuckID card for entry into the Heffner Wetland Research and Education Building (lab days)

Required software

- Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Full instructions for downloading and installation can be found at go.osu.edu/office365help.

Carmen access

You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you take the following steps:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device help article for step-by-step instructions (go.osu.edu/add-device).
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- Download the Duo Mobile application (go.osu.edu/install-duo) to all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357(HELP) and IT support staff will work out a solution with you.

GRADING AND FACULTY RESPONSE

How your grade is calculated

ASSIGNMENT CATEGORY	POINTS
Labs (10 @ 25)	250
Weekly Quizzes on Carmen (10 @ 10)	100
Exams – Midterm, Field Practical & Final (3 @ 100)	300
Final Report	75
Participation	75
Total	800

See Carmen for due dates.

Descriptions of major course assignments

Participation (75 pts)

Description:

Attendance and active participation are critical to comprehension of material and completing class assignments. Participation points will be awarded based on engagement with instructors and material, attendance of lectures, as well as preparation for and participation in laboratory exercises. You will be working with a group to complete labs. At the end of the semester, there will be a peer evaluation of your participation in lab, which will contribute to your overall participation grade.

Academic integrity and collaboration:

NA

Labs (250 pts)

Description:

- Labs will be a mix of indoor and outdoor activities. Outdoor labs will be held at [The Wilma H. Schiermeier Olentangy River Wetland Research Park](#). Attendance and participation in labs is required to complete worksheets and assignments.

Academic integrity and collaboration:

You will be working in small groups to complete most labs. This should be a collaborative effort, but everyone must submit their own work. *To maintain a culture of integrity and respect, generative AI tools (e.g., ChatGPT, Sudowrite) may not be used in the completion of lab assignments.*

Quizzes and Assignments (100 pts)

Description:

- There will be a 10-point quiz covering the lecture, lab, and reading material each week. Quizzes will be available on Carmen.

Academic integrity and collaboration:

Quizzes must be completed independently.

Final Report (75 pts)

Description:

- The final report will compile and summarize data collected throughout the semester

Academic integrity and collaboration:

Elements of the final report will be completed in collaboration with your lab team, but everyone will submit their own final report document. *To maintain a culture of integrity and respect, generative AI tools (e.g., ChatGPT, Sudowrite) should not be used in the completion of the final report. Generative AI may be used for proofreading and editing of the final report once it is written. Use cautiously and at your own risk!*

Exams (300 pts)

Description:

- Lecture and lab material will be assessed through a midterm and final exam. The final exam will focus on material covered since the midterm, but **all** course material is fair game to be included.

Academic integrity and collaboration:

Exams must be completed independently

Late assignments

****Late assignments will be issued a 5% percent penalty for every 24 hours late, including weekends****

Communication/documentation of extenuating circumstances will remove this penalty. Please refer to Carmen for due dates (and updates).

Grading scale

93–100: A	73–76.9: C
90–92.9: A-	70–72.9: C-
87–89.9: B+	67–69.9: D+
83–86.9: B	60–66.9: D
80–82.9: B-	Below 60: E
77–79.9: C+	

Instructor feedback and response time

We are providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-4357(HELP)** at any time if you have a technical problem.)

- **Grading and feedback:** You can generally expect feedback within **7–10 days**.

Email: We will reply to emails within **24 hours on days when class is in session at the university**.

Academic integrity policy

See **Descriptions of major course assignments**, above, for my specific guidelines about collaboration and academic integrity in the context of this online class.

Ohio State's academic integrity policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's *Code of Student Conduct* (studentconduct.osu.edu), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If we suspect that a student has committed academic misconduct in this course, we are obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's *Code of Student Conduct* (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact us.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- Committee on Academic Misconduct web page (go.osu.edu/coam)
- Ten Suggestions for Preserving Academic Integrity (go.osu.edu/ten-suggestions)
- Eight Cardinal Rules of Academic Integrity (go.osu.edu/cardinal-rules)

Copyright for instructional materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on Title IX

All students and employees at Ohio State have the right to work and learn in an environment free from harassment and discrimination based on sex or gender, and the university can arrange interim measures, provide support resources, and explain investigation options, including referral to confidential resources.

If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options at titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu. Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin and disability. For more information on OIE, visit equity.osu.edu or email equity@osu.edu.

Creating an environment free from harassment, discrimination, and sexual misconduct – Statement on Title IX

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options at titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu. Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin and disability.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

1. Online reporting form at equity.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or Email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information:
 - Any human resource professional (HRP);
 - Anyone who supervises faculty, staff, students, or volunteers;
 - Chair/director; and
 - Faculty member.

This course adheres to The Principles of Community adopted by the College of Food, Agricultural, and Environmental Sciences. These principles are located on the Carmen site for this course; and can also be found at <https://go.osu.edu/principlesofcommunity>. For additional information on Diversity, Equity, and Inclusion in CFAES, contact the CFAES Office for Diversity, Equity, and Inclusion (<https://equityandinclusion.cfaes.ohio-state.edu/>). If you have been a victim of or a witness to a bias incident, you can report it online and anonymously (if you choose) at <https://studentlife.osu.edu/bias/report-a-bias-incident.aspx>.

Religious Accommodations

It is Ohio State's policy to reasonably accommodate the sincerely held religious beliefs and practices of all students. The policy permits a student to be absent for up to three days each academic semester for reasons of faith or religious or spiritual belief.

Students planning to use religious beliefs or practices accommodations for course requirements must inform the instructor in writing no later than 14 days after the course begins. The instructor is then responsible for scheduling an alternative time and date for the course requirement, which may be before or after the original time and date of the course requirement. These alternative accommodations will remain confidential. It is the student's responsibility to ensure that all course assignments are completed.

Weather or Short-term closing

Should in-person classes be canceled, we will meet virtually via CarmenZoom during our regularly scheduled time. We will share any updates via CarmenCanvas.

Counseling and Consultation Services/Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life Counseling and Consultation Services (CCS) by visiting ccs.osu.edu or calling (614) 292- 5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at (614) 292-5766 and 24 hour emergency help is also available through the 24/7 National Prevention Hotline at 1-(800)-273-TALK or at suicidepreventionlifeline.org. The Ohio State Wellness app is also a great resource available at go.osu.edu/wellnessapp.

David Wirt, wirt.9@osu.edu, is the CFAES embedded mental health counselor. He is available for new consultations and to establish routine care. To schedule with David, please call 614-292-5766. Students should mention their affiliation with CFAES when setting up a phone screening.

ACCESSIBILITY ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES

Requesting accommodations

The university strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let us know immediately so that we can privately discuss options. To establish reasonable accommodations, we may request that you register with Student Life Disability Services. After registration, make arrangements with us as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. **SLDS contact information:** slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Accessibility of course technology

This course requires use of CarmenCanvas (Ohio State's learning management system). If you need additional services to use these technologies, please request accommodations.

- Canvas accessibility (go.osu.edu/canvas-accessibility)
- CarmenZoom accessibility (go.osu.edu/zoom-accessibility)

COURSE SCHEDULE

Refer to the Carmen course for up-to-date assignment due dates.

Week	Dates	Topics	Readings
1	22, 24-Aug	Class Overview; Scientific Method	WTM 1–21
	25-Aug	LAB – Map Reading, Orienteering, GPS	
2	29, 31-Aug	Study Design & Sampling / Habitat Classification	WTM 22–39
	1-Sep	LAB – QGIS / Landcover digitization	
3	5, 7-Sep	Vegetation Sampling	WTM Ch19
	8-Sep	LAB – Study Design / Habitat Assessment 1 (forest)	
4	12, 14-Sep	Identification & Marking / Mark-recapture & estimation of demographic rates	WTM Ch10 / WTM Ch12
	15-Sep	LAB – Habitat Assessment 2 (grassland/wetland)	
5	19, 21-Sep	Herp and Invertebrate Field Methods	Karns Field Method / WTM Ch14
	22-Sep	LAB – Field Sampling of Herps & Inverts	
6	26, 28-Sep	Wildlife Health and Disease Surveillance / Avian Field Methods	WTM Ch7 / Ralph et al. 1993
	29-Sep	LAB – Avian Sampling Methods	
7	3, 5-Oct	Radiotelemetry Data Collection and Analysis	WTM Ch11
	6-Oct	LAB – Telemetry lab @ Wetlands	Guest Presentation: Dylan Darter
8	10-Oct	Conservation Genetics & Molecular Ecology; Midterm DUE!!!	WTM Ch25
	12, 13-Oct	FALL BREAK – NO CLASS	
9	17, 19-Oct	Mammal Field Methods / Data Management	TBD / Data Management Guide
	20-Oct	FIELD LAB PRACTICAL	
10	24, 26-Oct	Camera Traps / Bioacoustics	WTM Ch13 / WTM 15
	27-Oct	LAB – Creation and Use of Databases	
11	31-Oct, 2-Nov	Measuring Abundance & Occurrence	WTM Ch 12
	3-Nov	LAB – Using Excel / Using Rstudio	
12	7, 9-Nov	TWS Conference – NO CLASS MUST GET ALL LAB DATA ENTERED	
	10-Nov	VETERAN'S DAY OBSERVED – NO CLASS	
13	14, 16-Nov	Quantitative Methods	TBD
	17-Nov	LAB – Summary / Analysis of Lab data	
14	21-Nov	Careers in Wildlife	
	23, 24-Nov	THANKSGIVING BREAK – NO CLASS	
15	28, 30-Nov	Technical writing and reporting	TBD
	1-Dec	LAB – Final Report Preparation	
16	5-Dec	Final Report	
	11-Dec	Final Exam: 2:00 – 3:45 PM	