SYLLABUS
ENR 5360
Principles of Wildlife Ecology and Management
Autumn 2020 (full term)
3 credit hours
Online -asynchronous

COURSE OVERVIEW

Instructor
Instructor: Stephen Matthews
Email address: matthews.204@osu.edu (email is preferred mode of communication)
Office: 367C Kottman Hall
Phone number: 614-247-1889
Office hours: Monday/Thursday 3:00-4:00 or by appointment

Prerequisites
none

Course description

Principles of population and community ecology applied to conservation and management of terrestrial vertebrates. Principles of wildlife management including social and economic factors.

This course is appropriate for advanced undergraduate and graduate students in any of the Forestry, Fisheries, and Wildlife integrated curricula of the School of Environment and Natural Resources or related fields. We will study important biological, ecological, and sociological concepts that provide the foundation for wildlife management as well as overview historical and contemporary issues in wildlife ecology and conservation, case studies, and tools to study wildlife populations and communities.
Course learning outcomes

The broad goals are organized as four primary areas and portrayed as they align with the learning objectives to reinforce some of the fundamental concepts from this course:

- Understand the important ecological principles and hierarchy of scales: landscapes, ecosystems, communities, species, population, individuals, genetics
  - Illustrate how wildlife management is complex and the spatial and temporal scales at which we consider information and problems can profoundly influence our perceptions of situations
  - Express the importance of how ecological concepts are the basis for sound wildlife management and conservation
  - Demonstrate the key components of community and population ecology via model systems and with direct application to management settings
- Understand the history of and current issues in wildlife ecology/management
  - Discuss the key pressures that influence wildlife
- Appreciate the ways in which ecological concepts intersect with the goals and perspective of people to define wildlife management
  - Express the ways human dimensions can influence management decisions and outcomes as much as the ecology of the situation
  - Apply and synthesize ecological and social concepts into making wildlife management decisions, and then be able to analyze and evaluate these decisions
- Gain and improve skills in communicating about wildlife ecology and management
  - Create professional style documents for written and verbal presentations of wildlife ecology principles and management implications.

HOW THIS ONLINE COURSE WORKS

Mode of delivery: This course is 100% online. There are no required sessions when you must be logged in to Carmen at a scheduled time.

Pace of online activities: This course is divided into weekly modules that are released one week ahead of time. Students are expected to keep pace with weekly deadlines but may schedule their efforts freely within that time frame.

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: Because this is an online course, your attendance is based on your online activity and participation. The following is a summary of students’ expected participation:

- Participating in online activities for attendance: AT LEAST ONCE PER WEEK
  You are expected to log in to the course in Carmen every week. (During most weeks you will probably log in many times.) If you have a situation that might cause you to miss an entire week of class, discuss it with me as soon as possible.

COURSE MATERIALS AND TECHNOLOGIES

Textbooks

Recommended/optional


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)
- CarmenZoom virtual meetings (go.osu.edu/zoom-meetings)
- Recording a slide presentation with audio narration (go.osu.edu/video-assignment-guide)
• Recording, editing, and uploading video ([go.osu.edu/video-assignment-guide](go.osu.edu/video-assignment-guide))

Required equipment

• Computer: current Mac (MacOs) or PC (Windows 10) with high-speed internet connection
• Webcam: built-in or external webcam, fully installed and tested
• Microphone: built-in laptop or tablet mic or external microphone
• Other: a mobile device (smartphone or tablet) to use for BuckeyePass authentication

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](go.osu.edu/office365help).

Carmen access

You will need to use BuckeyePass ([buckeyepass.osu.edu](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](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](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
See course schedule below for due dates.

Descriptions of major course assignments

Exams

Description: Examinations may consist of true/false, multiple choice and short answer questions. All exams will be taken online using CarmenCanvas. Exams will be open on CarmenCanvas for approximately 12 hours and you can take the exam anytime during these 12 hours. You will be given 60-100 minutes to complete the exam. If you fail to complete the exam on Carmen before it closes you will earn a grade of 0%. You will take the exam from a location of your choosing that has Internet connection (e.g., dorm room, library).

Academic integrity and collaboration: Each student must complete the exam on her or his own. You are NOT permitted to receive assistance from anyone else during the exam. You are NOT permitted to take the exams as part of a group. You are NOT permitted to use notes, slides, calculator, textbook, journal articles, books, and Internet during the exam. Thus, you are on your honor to complete the exams on your own without help from another person or materials related to the course. Additional details will be provided during the semester.

Problem Sets
Description: The population and community ecology problem sets will help you to learn calculating population growth rates and community diversity measures and applying that information to management decisions. The problem sets will be submitted on Carmen Canvas at the end of the week that they are assigned.

Academic integrity and collaboration: Each student will complete their own problem set and are expected to work through each problem. In order to facilitate learning, we will set up discussion board sessions where questions and assistance can be provided as a means to help facility peer learning.

Species Interactions and Network Models

Description: This assignment is aimed to enhance your understanding of the direct and indirect effects of species as it specifically relates to wildlife management. Topics will be assigned on week 3, and the assignment is due week 7 and must be submitted to carmen canvas assignment. Further during week 7 online discussions board groups will occur to provide the opportunity to share your individual work. The project will consist of 5 parts: developing a model of the species' 1) abiotic and 2) biotic effects on the ecosystem, 3) reporting on the basic species biology, and discussing 4) threats and 5) management actions related to that species. The style of the document will be that of a fact sheet and will include a logic model or flow diagram of the multiple interacting ecosystem levels.

Academic integrity and collaboration: Each student will develop their own species interaction and network model paper. The work should be their own and include citations of relevant resources.

Species Management Plan Assessment

Description: You will write an approximate 3 page (single-spaced) paper examining a species management plan for a terrestrial vertebrate that occurs in the US. In your paper you will (1) summarize the basic ecology of the species, the primary threats, and the general strategy applied in the plan (e.g., habitat protection, captive breeding) AND (2) in bulleted/list format, identify and briefly describe how basic ecological principles/topics covered in our class are included or not included in the plan (e.g., minimum viable population size, area sensitivity, genetic structure). We will discuss further details about the assignment during week 6. A draft is due during week 10 and the final assessments are due during week 13, when we will also conduct online discussion board of your individual assignment in small group settings.

Academic integrity and collaboration: Each student will develop their own species management plan assessment. The work should be their own and include citations of relevant resources.
Activities

Description: Throughout the semester, we will have online discussions/exercises revolving around reading assignments from the primary literature related to lecture content. In order to complete these activities it is essential that the assigned reading or other pre-class material is completed before the scheduled activity. For each activity random small groups will be assigned to discussion board where you will be required to complete a set of questions together.

Academic integrity and collaboration: Each student is expected to work collaboratively in answering the group questions and post to the discussion board.

Discussion/ Participation

Description: Participation is key to the success of this class and will enhance learning. Part of the equation for success is being present, as such we will base a portion of these allotted points on your response rate to weekly self-check quizzes. The other portion of these points will be assigned based on engagement and collegiality throughout the activities and other online discussions.

Late assignments

Make-up exams will be given only for valid excuses (including proper documentation of medical or other event). In case of an emergency situation (such as medical, accident, or personal circumstances), exception will be considered on a case-by-case basis. Please contact me as soon as possible to discuss possible accommodations. Grade disputes must be submitted in writing within 24 hours of receiving your graded exam. Late assignments will be penalized 10% per day in the absence of a valid excuse.

Grading scale

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

Instructor feedback and response time

I am 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**: For large weekly assignments, you can generally expect feedback within 7 days.
- **Email**: I will reply to emails within 24 hours on days when class is in session at the university.
- **Discussion board**: I will check and reply to messages in the discussion boards every 24 hours on school days.

OTHER COURSE POLICIES

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style**: While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility**: Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.
- **Citing your sources**: When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work**: Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.
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 I suspect that a student has committed academic misconduct in this course, I am 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 me.

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](http://titleix.osu.edu) or by contacting the Ohio State Title IX Coordinator at [titleix@osu.edu](mailto: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](http://equity.osu.edu) or email [equity@osu.edu](mailto:equity@osu.edu).

**Commitment to a diverse and inclusive learning environment**

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

**Your 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. No matter where you are engaged in distance learning, The Ohio State University's
Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, on-demand resources are available at go.osu.edu/ccsondemand. 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.

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 me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me 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; 098 Baker Hall, 113 W. 12th Avenue.

Accessibility of course technology

This online course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- Canvas accessibility (go.osu.edu/canvas-accessibility)
- Streaming audio and video
- CarmenZoom accessibility (go.osu.edu/zoom-accessibility)
- Collaborative course tools

COURSE SCHEDULE

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

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<th>Week</th>
<th>Dates</th>
<th>Topics, Readings, Assignments, Deadlines</th>
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<tr>
<td>1</td>
<td>8/26</td>
<td>Complexity &amp; scale</td>
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<tr>
<td>Week</td>
<td>Dates</td>
<td>Topics, Readings, Assignments, Deadlines</td>
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<tr>
<td>2</td>
<td>8/31</td>
<td>Individual: Genetics to Foraging Ecology, Activity #1 – Foraging</td>
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<td>3</td>
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<td>Individual: Behavioral Ecology</td>
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<td>9/14</td>
<td>Population Ecology, Activity #2 – Density Dependence</td>
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<td>5</td>
<td>9/21</td>
<td>Population Ecology, Population Problem Sets Due</td>
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<td>9/28</td>
<td>Managing Populations, EXAM 1</td>
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<td>7</td>
<td>10/5</td>
<td>Community Ecology, Species network DUE</td>
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<td>8</td>
<td>10/12</td>
<td>Ecosystem Ecology, Community Problem Sets Due</td>
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<td>9</td>
<td>10/19</td>
<td>Landscape Ecology, Activity #3 – Landscapes</td>
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<td>10</td>
<td>10/26</td>
<td>Landscape Ecology, Species Management Plan Draft Due</td>
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<td>11</td>
<td>11/2</td>
<td>Conservation topics: Human Dimensions, Wildlife disease, Exam 2</td>
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<td>12</td>
<td>11/9-11/20</td>
<td>Conservation topics: endangered species and invasive species management, Species Plan Assignment due</td>
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<td>13</td>
<td>11/23</td>
<td>Conservation topics: climate change, Activity #4 – Climate change</td>
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<td>14</td>
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<td>Conservation example: Forest management, Activity #5 – Forest Management</td>
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<td>Online Final exam 12/10</td>
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