

## **WFS 515- Avian Ecology and Conservation (3 cr)**

**I. Instructor:** Dr. David A. Buehler  
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## **II. Catalog Description:**

### **WFS 515- Avian Ecology and Management (3 cr)**

Readings and discussion based on current literature in avian ecology and management. Field and analytical methods in research and monitoring of bird populations. Prerequisites: Consent of instructor. 3 hours. F.

**III. Schedule:** Wed 3:30-5:30 pm  
113 Plant Biotech Building

**IV. Text:** Readings assigned and distributed weekly.

## **V. Course:**

Goal: The overall goal of the course is to help students explore contemporary topics in avian ecology and learn field-based and analytic techniques for conducting studies in avian ecology.

Specifically, a successful student should:

- 1) Be able to identify and understand classical literature in avian ecology and conservation
- 2) Be able to understand and implement field studies in avian ecology relating to:
  - survival
  - nest ecology and nest survival
  - monitoring population distribution and abundance
  - acoustic monitoring techniques
  - community analyses
- 3) Be able to understand data analyses relating to:
  - survival
  - nest survival
  - species presence and occupancy
  - estimating density via distance sampling

- analyses of audio files for acoustic monitoring
  - community analyses
  - population modeling
- 4) Develop and practice skills in oral and written communication including
- sharing ideas and opinions in class
  - making oral presentations in class
  - leading discussions
  - synthesis of information
  - writing technical reports

**Student Evaluation:** Final grades will be assigned as follows:

Class Participation	50 points
Discussion Leader	200 points
Scientific Report	75 points
Elevator Speech	25 points
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Total	350 points

**Grading Scale:**

A	92-100%
A-	90- 91%
B+	88- 89%
B	82- 88%
B-	80- 81%
C+	78- 79%
C	70- 78%
D	60- 69%
F	0- 59

**Class Participation:**

Participation in class discussions is a vital part of the learning process in this course. Although we try to develop a student-friendly environment in which the exchange of ideas can take place without fear of reprisal, it still can be intimidating at times to put forth your ideas for group consideration. As instructor, I will be evaluating your participation and will provide feedback individually in terms of whether you are participating at an appropriate level. Please note that you could have issues in two ways: too little participation or too much participation (i.e., dominating the discussion). Sharing and defending/revising your thoughts with the class is an absolutely vital part of your professional development.

### **Scientific Technical Report & 3-min Elevator Speech- 100 pts.**

The theme this year is Citizen Science! There are tremendous long-term datasets available for analysis (e.g., NABBS, CBC, E-bird). Come up with a focused research question and then find an appropriate dataset to answer the question, analyze the data using appropriate statistical means, and report your findings in a scientific report fashion. Write the report in standard scientific article format with title, author, abstract, intro, body, conclusions, and literature cited sections. The paper should be  $\leq 10$  pages double spaced. It is ok with me to work on a topic relevant to your thesis/dissertation but I want you to tap into a citizen science dataset if possible. On the last day of class, we will present our research results in an elevator-speech (3 min talks, no more than 5 slides) format! Due date: Wed, Dec 8th.

### **Discussion Leader:**

Each student will be required to lead one discussion and conduct a laboratory exercise if possible. Each discussion leader will choose and disseminate at least three papers or book chapters to be the basis of the discussion for their assigned discussion session. At least one paper should be a classic in avian ecology (before 1990) covering the topic of interest and at least one paper should be on the analytic technique we will use for that class session. Papers will be distributed at least one week before the discussion by the discussion leader. Discussion subjects and papers should be pre-approved by the instructor.

## Calendar of Events

<u>Date</u>	<u>Topic</u>	<u>Leader</u>
18 Aug	First Class- Class Goals and Organization	Buehler
25 Aug	History of Conservation	Buehler
1 Sep	Classic Literature in Ecology and Wildlife	Buehler
8 Sep	Discussion Leader #1	
15 Sep	Discussion Leader #2	
18 Sep	Bird Banding- Little Bluestem Valley Farm	Buehler
22 Sep	Discussion Leader #3	
25 Sep	Bird Banding- Little Bluestem Valley Farm	Buehler
29 Sep	Discussion Leader #4	
6 Oct	Discussion Leader #5	
13 Oct	Discussion Leader #6	
20 Oct	Discussion Leader #7	
27 Oct	Discussion Leader #8	
3 Nov	Discussion Leader #9	
10 Nov	Discussion Leader #10	
17 Nov	Discussion Leader #11	
24 Nov	No class- Thanksgiving break	
1 Dec	Discussion Leader #12	
Dec 8	Citizen Science Elevator Speeches/Class Wrap-up	
Dec 8	Scientific Technical Report due	