

BIOL 0016D - BIOLOGY OF WATERFOWL AND MARSH BIRDS

Catalog Description

Hours: 13 (7 lecture, 6 laboratory)

Description: Field identification and observation of marsh birds (primarily ducks, geese, swans, and wading birds). Includes general waterfowl biology and ecology. Emphasizes evolution, migration, reproductive cycles, current population trends, and habitat needs. Operational needs and conflicts of national and local wildlife refuge system are discussed. This class may require ability to hike moderate distances on uneven ground. (CSU)

Course Student Learning Outcomes

- CSLO #1: Describe and evaluate the impacts of humans on the environments of wetlands and the avian organisms that reside there.
- CSLO #2: Describe the ecological principles that affect waterfowl and/or marsh birds and their habitats.
- CSLO #3: Explain the factors that have shaped the evolutionary adaptations of waterfowl and/or marsh birds.
- CSLO #4: Accurately document and interpret ecological observations made in the field of waterfowl and/or marsh birds.

Effective Term

Fall 2022

Course Type

Credit - Degree-applicable

Contact Hours

13

Outside of Class Hours

14

Total Student Learning Hours

27

Course Objectives

Course objectives are linked to items listed in the course content outline (parentheses)

Lecture Objectives:

1. Identify the general characteristics of birds and evaluate the effect of those characteristics on their natural history. (Lecture Outline #1, #3)
2. Outline characteristics commonly used for the identification of birds in the field (Lecture Outline #2)
3. Describe and evaluate the contrasting interests in waterfowl and marsh bird habitat preservation and use. (Lecture Outline #4)
4. Identify and describe the diversity of birds and explain the particular importance of Central Valley habitats to waterfowl and marsh birds. (Lecture Outline #2, #3, #4)

Laboratory/Field Objectives:

1. Demonstrate the ability to properly identify birds in the field using a taxonomic key and/or a field guide. (Laboratory/Field Outline #1)
2. Distinguish between observable behaviors exhibited by birds in the field. (Laboratory/Field Outline #2)
3. Observe and evaluate the type, extent, and relative quality of distinct habitat types visited in the field. (Laboratory/Field Outline #3)
4. Identify examples of human impacts to waterfowl, marsh birds, and their habitats. (Laboratory/Field Outline #4)
5. Create a detailed field journal or summary report documenting the field experience. (Laboratory/Field Outline #5)

General Education Information

- Approved College Associate Degree GE Applicability
- CSU GE Applicability (Recommended-requires CSU approval)
- Cal-GETC Applicability (Recommended - Requires External Approval)
- IGETC Applicability (Recommended-requires CSU/UC approval)

Articulation Information

- CSU Transferable

Methods of Evaluation

- Projects
 - Example: To address Course Lecture Objective #4, "Identify and describe the diversity of birds and explain the particular importance of Central Valley habitats to waterfowl and marsh birds", students might be asked, either individually or in small groups, to prepare a short oral presentation or written report or participate in a class discussion about a species of bird that relies on Central Valley habitats during migration. Students could be evaluated on participation, accuracy of information, attention to details, and completeness.
- Reports
 - Example: To address Course Laboratory/Field Objective #5, "Create a detailed field journal or summary report documenting the field experience", students might be asked to write a report summarizing the habitat(s) visited, biotic and abiotic features observed, and species encountered. Students could be evaluated based on accuracy of information, attention to detail, and completeness of summary.
- Skill Demonstrations
 - Example: To address Course Laboratory/Field Objective #1, "Demonstrate the ability to properly identify birds in the field using a taxonomic key and/or a field guide", students might be asked to use a field guide to correctly identify an organism. Students could be evaluated on the correctness of the answer, technique, and understanding of terminology in the guide.

Repeatable

No

Methods of Instruction

- Laboratory
- Lecture/Discussion

Lab:

1. To satisfy Course Laboratory/Field Objective #1, "Demonstrate the ability to properly identify birds in the field using a taxonomic key and/or a field guide", the instructor might lead the class in

a demonstration of the use of a field guide to identify a known specimen, and then guide students as they attempt the identification of unknown specimens.

2. To satisfy Course Laboratory/Field Objective #3, "Observe and evaluate the type, extent, and relative quality of distinct habitat types visited in the field", the instructor might point out various habitats in the field, making comparisons to other examples of such habitat types observed in the field or described in the classroom and then students will make and record their own observations and comparisons.

Lecture:

1. To satisfy Course Lecture Objective #1, "Identify the general characteristics of birds and evaluate the effect of those characteristics on their natural history", the instructor might present a lecture (supplemented by images and/or videos) that explains the key features of birds and how they interact with the biotic and abiotic elements of their environments and then students will make and record their own observations.
2. To satisfy Course Lecture Objective #3, "Describe and evaluate the contrasting interests in waterfowl and marsh bird habitat preservation and use", the instructor might lead an in-class discussion about the varied goals of agricultural, residential, hunting, conservation, and preservation interests.

Typical Out of Class Assignments

Reading Assignments

1. To address Course Lecture Objective #1, "Identify the general characteristics of birds and evaluate the effect of those characteristics on their natural history", students might be asked to read an article or handout about avian biology and then apply this knowledge to descriptions of observations made in the field.
2. To address Course Lecture Objective #3, "Describe and evaluate the contrasting interests in waterfowl and marsh bird habitat preservation and use", students might be asked to review the mission statements for a conservation organization that supports hunting and a conservation organization that does species conservation and land preservation without hunting and be prepared to discuss this in class.

Writing, Problem Solving or Performance

1. To address Course Lecture Objective #4, "Appreciate the diversity of birds and the particular importance of Central Valley habitats to waterfowl and marsh birds", students might be asked to write and/or prepare a short oral presentation about a species of bird that relies on Central Valley habitats during migration.
2. To address Course Laboratory/Field Objective #5, "Create a detailed field journal or summary report documenting the field experience", students might be asked to document their observations in the field in a journal, using any combination of text, sketches, photos, and/or other media.

Other (Term projects, research papers, portfolios, etc.)

Required Materials

- Sibley's Birding Basics
 - Author: David Allen Sibley
 - Publisher: Knopf
 - Publication Date: 2002

- Text Edition: 1st
- Classic Textbook?:
- OER Link:
- OER:
- The Sibley Field Guide to Birds of Western North America
 - Author: David Allen Sibley
 - Publisher: Knopf
 - Publication Date: 2003
 - Text Edition: 1st
 - Classic Textbook?:
 - OER Link:
 - OER:
- The Laws Guide to Nature Drawing and Journaling
 - Author: Laws, John Muir
 - Publisher: Heyday Books
 - Publication Date: 2016
 - Text Edition: 1st
 - Classic Textbook?:
 - OER Link:
 - OER:

Other materials and-or supplies required of students that contribute to the cost of the course.