

Field Ornithology Summer 2024

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Birds are considered important indicators of habitat quality and are often the focus of conservation-oriented research, restoration, and monitoring. This program is intended to foster the development of strong bird identification and natural history skills, and to expose students to a variety of field and analytical methods commonly used in bird monitoring and avian research. We will link theory to practice in via a series of lectures, data analysis workshops, quizzes, and field activities aimed at linking observational skills with data collection and analysis. Students will demonstrate their learning through active participation in course activities and assignments including in-person meetings and information sharing, field journal entries, assignments, quizzes, a final assessment and (for upper division and graduate students) a final project.

This program is being offered in an intensive format. During the first week, we cover essential concepts of bird biology including: bird evolution, adaptations for flight, vocal anatomy and communication, and life history strategies and migration. We will undertake daily morning birdwatching outings to hone bird identification skills. Concepts and skills in the classroom and field will be enhanced with work in the lab studying bird taxonomy, form and function. The second week of the program will emphasize methods frequently used in avian field work including: point-counts, habitat surveys, and bioacoustic methods. We will learn how to collect and enter data using standard data-management tools and we will learn commonly used statistical analyses including pattern-matching analysis and estimating abundance/occupancy.



Ruby-throated Hummingbird.
Source: Chester A. Reed, "The Bird Book", 1915. Received from <http://www.gutenberg.org/etext/30000>.

Class Meeting Times

Week 1: Monday – Friday, 7:00 am – 4:00 pm, Saturday 9:00 am – 4:00 pm

Week 2: Monday – Wednesday, 7:00 am – 4:00 pm, Friday 7:00 am – 4:00 pm

Week 3: Monday – Tuesday, Evaluation conferences for students attempting regular credit. Friday, research reports DUE

Week 4: Evaluation Conferences for students attempting Upper Division Science or Graduate credit.

Textbooks/Readings:

- A good field guide. We recommend the Sibley Birds West by David Allen Sibley, Knopf, 2016, ISBN-13: 9780307957924 But others are also okay as long as they cover birds of Western North America.

Chapters from:

- Handbook of Bird Biology by Irby Lovette and John Fitzpatrick, Cornell Lab of Ornithology, 2016, ISBN-13: 978-1118291054. ***This book is available as an e-book through Evergreen's library***

Excerpts from:

- Identification Guide to North American Birds, Part I, Peter Pyle, Slate Creek Press, 1997.
- The Photographic Companion to the Pyle Guide by Daniel Froehlich

https://www.birdpop.org/docs/pubs/Froehlich_2009_Ageing_North_American_Landbirds_by_Molt_Limits_Photo_Guide.pdf

- Other readings – posted on the program website

Learning and Assessment:

This program will cover the major topics of bird biology via assigned readings and lectures. Additionally, we will be learning commonly practiced field methods used by ornithologists including: surveying birds via point counts and bioacoustic monitoring, observation of bird behavior, habitat surveys, and banding (a demonstration of this). Learning will be assessed via quizzes, a lab assessments, field and computer lab assignments, and a Field Journal (<https://sites.evergreen.edu/alisonstyring/home/guidelines-for-keeping-a-field-journal/>) . In addition to learning the field methods, students will organize and analyze field data they collect using basic statistical and visual approaches. There will also be an overview of commonly-used statistical analyses.

Credits:

4 – Ornithology

4 – Avian Research Methods

Upper Division Science Credit:

To be awarded upper-division science credit, the student must:

1. Have completed the following pre-requisite coursework: General Biology with Lab (12 credits), College-level Math such as Precalculus, Calculus I, Statistics 1 (4 credits).
2. Complete a research report related to an element of the field work conducted in the program.

Graduate Credit Option:

To be awarded graduate credit, the student must:

1. Be enrolled in a graduate program and must successfully completed one quarter of statistics.
2. Complete a research report related to an element of the field work conducted in the program.

Four Credit Option:

Students enrolling for 4-credits will participate in the first half of the program. This includes (1) on-campus classes and associated coursework, assignments during the first week, and (2) a final assessment