

# BirdCountry.US Conservation Ornithology Course Syllabus

## **Course Information**

Course Title: Conservation Ornithology

Course Number: CO801

Brief Course Description: Conservation of any species is comprised of documenting all aspects of the species, assessing human impacts on the species, and developing workable solutions to mitigate those impacts. In this course, we will concentrate on understanding birds of the continental United States and methods that may lead to their conservation.

## **Instructor Information**

Instructor's Name: Jeff Riegel

Instructor's Title: Director of BirdCountry.US; President, Sassafras Audubon Society

Office Location: Bloomington, Indiana

Office Hours: Sunday, 7 p.m. to 9 p.m.; Tuesday and Thursday, 5 p.m. to 10 p.m.  
[all times are Eastern Standard Time(EST), Daylight Savings Time applies]

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## **Course Objectives**

Conservation Ornithology is based on three main sections. Section I: Major Orders of Birds will introduce you to some of the differences, as well as similarities, among some of the major Orders of birds, concentrating on those that inhabit the continental United States. Section II: The Biology of Birds will give you an overview of respiration, skeletal and muscular arrangement, flight and feathers, and other basic biological attributes of birds. Section III: Avian Conservation will cover field studies and how to recognize, design, and conduct basic studies that will add to conservation efforts.

## Student Learning Outcomes

Upon completion of this course, students will be able to:

1. readily identify many species of birds to at least the family level
2. understand the many aspects and individual nuances of avian biology and demonstrate the relation of those nuances to current and future conservation issues
3. identify and understand the conservation priorities of numerous families and species of birds, both migratory and non-migratory, throughout their entire range
4. design, implement, and analyze their own avian studies
5. evaluate the effectiveness of others' studies and suggest avenues for further research
6. communicate with the general public about the importance of conservation work, the outcomes of their own and others' research, and enlist support from the general public for further research

## Course Philosophy

Instructional Methods: Various methods will be used in this course, including, but not limited to lectures, field labs, readings, discussions and assignments. Delivery of lectures will be accomplished via PowerPoint presentations on your home computer. Field labs will entail bird surveys taken in an area of your choosing on a recommended bi-weekly basis. Readings in addition to the required text will include papers on various avian field studies and other texts widely available at major bookstores as well as local and university libraries. Discussions and assignments will be accomplished via email and/or chat room technology.

## Weekly Requirements

While there are no restrictions on the maximum time you may take to complete the Conservation Ornithology course, it is highly recommended that you cover no more than one module per week. Each module will include reading a section of the course textbook and a PowerPoint presentation. Field labs will rotate with

supplemental readings and discussions on a module-by-module basis. You can expect to spend approximately 10-12 hours per module to successfully complete the course. You will not be allowed to move on to the next module before completion of all assigned work in the current module.

## **Textbooks and Readings**

### Required References:

1. Course textbook: *Ornithology*, Frank B. Gill, 3<sup>rd</sup> Edition, published by W.H. Freeman and Company, approximate cost - \$115 (new) – included in the price of the BirdCountry.US Conservation Ornithology Course
2. Supplemental text #1: *The Sibley Guide to Bird Life and Behavior*, David Sibley, Alfred A. Knopf, 2001, \$35 – available for sale at the BirdCountry.US e-Store – used copies may be available at various Internet resources – also available at many local and university libraries
3. Supplemental text #2: *Field Guide to the Birds of North America*, National Geographic, 5<sup>th</sup> Edition, National Geographic, \$24.00 – available for sale at the BirdCountry.US e-Store – used copies may be available at various Internet resources – available at many local and university libraries – numerous other field guides are also acceptable as long as they cover all the species to be found in your home area
4. Supplemental readings\* of several papers and reports will also be required and will be provided with course registration. While the following list is subject to change (see Disclaimer below), it serves as a guide to the types of readings that will be a part of the course:

*Effects of Forest Patch Size on Avian Diversity*

<http://landscape.forest.wisc.edu/landscapeecology/articles/v10i02p085.pdf>

*Nest Architecture and Avian Systematics*

<http://elibrary.unm.edu/sora/Auk/v116n04/p0875-p0877.pdf>

*Adaptation to the Sky – Defining the Feather*

[http://www.zoo.ufl.edu/cohn/EvoDevoClass/securereadings/Chuong%206\\_5.pdf](http://www.zoo.ufl.edu/cohn/EvoDevoClass/securereadings/Chuong%206_5.pdf)

*Historical Patterns in the Study of Avian Social Behavior*

<http://elibrary.unm.edu/sora/Condor/files/issues/v096n01/p0232-p0243.pdf>

*Bird Migration and Wind Turbines*

<http://www.nationalwind.org/publications/avian/avian98/20-Richardson-Migration.pdf>

*Costs of Reproduction in a Long-lived Bird*

[http://www.ib.uit.no/~sah001/index\\_files/ProcRSocLondB2005\\_272\\_1039-1046.pdf](http://www.ib.uit.no/~sah001/index_files/ProcRSocLondB2005_272_1039-1046.pdf)

*Evaluation of Two Survey Methods*

<http://elibrary.unm.edu/sora/JFO/v064n01/p0055-p0070.pdf>

*Preliminary Distributional Analysis of US Endangered Birds*

[http://www.specifysoftware.org/Informatics/bios/biostownpeterson/GP\\_B\\_C\\_2000.pdf](http://www.specifysoftware.org/Informatics/bios/biostownpeterson/GP_B_C_2000.pdf)

### **Other Course Materials**

Computer with Internet access, CD-ROM, and active email account (required)

Software requirements include:

Microsoft Word

Microsoft Excel

Microsoft PowerPoint or PowerPoint Viewer (Viewer is a free download)

Adobe Acrobat Reader (free download)

Internet Explorer (or other web browser)

Calculator (recommended)

Binoculars (required) and spotting scope (optional)

Notebook, pen or pencil, any time-keeping device (required)

### **Course Calendar**

Each of the 12 modules in the BirdCountry.US Conservation Ornithology Course contains three sections. Section I is the Avian Order section and each module will cover a particular group of birds. Section II will delve into a particular aspect of avian biology. Finally, Section III will cover a conservation topic or some aspect of a conservation

project. Each week (or other time period) the student will complete a module. Work should not continue into another module until all sections of the current module are completed and assignments turned into the instructor. Here is a listing of the subjects to be covered in each module:

<b>Module</b>	<b>Avian Order</b>	<b>Aspect of Avian Biology</b>	<b>Conservation Topic</b>
1	Anseriformes (ducks, geese, swans)	Diversity, History, Systematics, and Conservation (Chapters 1-3; 21)	What Is Conservation?
2	Galliformes (grouse, turkeys, quail)	Feathers (Chapter 4)	Case Study: What Makes a Good Study?
3	Gaviiformes (loons)	Flight (Chapter 5)	High Priority Needs for Monitoring Landbirds
4	Ciconiiformes (herons, ibises, storks)	Physiology (Chapter 6)	Standard Field Methodology
5	Falconiformes (diurnal raptors)	Senses, Brains, and Intelligence (Chapter 7)	Document, Document, Document
6	Gruiformes (rails and cranes)	Vocalizations (Chapter 8)	Design Your Personal Study
Mid-Term Exam on Modules 1 through 6			
7	Charadriiforme (shorebirds and gulls)	Cycles, Migration and Navigation (Chapters 9-11)	Start Your Personal Study
8	Strigiformes (owls)	Social Behavior (Chapter 11)	Population Growth and Regulation
9	Piciformes (woodpeckers)	Mates and Breeding Systems (Chapters 12-13)	Competition and Mutualism
10	Passeriformes I (flycatchers and vireos)	Bird Sex (Chapter 14)	Communities
11	Passeriformes II (chickadees, titmice, wrens)	Nests, Incubation, Parental Care, Lifetime Success (Chapters 15-17)	Downy Woodpecker Conservation Program
12	Passeriformes III (warblers and sparrows)	Populations, Species and Communities (Chapters 18-20)	Personal Study Review
Final Exam on Modules 7 through 12			

### **Evaluation of Student Progress**

#### Assignments:

You will be required to write at least one paper (3-5 page, one-sided, double-spaced, 12 pt. Times New Roman or similar font) for each module; some modules may also ask for minute-papers (1-2 pages, one-sided, double-spaced, 12 pt. Times New Roman or similar font) on more specific aspects of the current subject. Submission of these assignments will be required before you can move on to the next module in the course. Assignments will be transmitted to the instructor via email attachments in Microsoft Word (preferred) or a simple text format. Grades for all assignments will be based on both the content of the paper and the communication skills of the student.

Examinations:

Two examinations will be administered with the course. Both will be a series of essay-type questions. The first will cover materials from the first six modules and the second will cover material in modules 7 through 12. Examination details are included with the course registration. Grades will be based on both the content of the answers and the communication skills of the student.

Grading: The following point system will be used in grading your progress through the course:

Module paper assignments:		15 points each
Module one-minute paper assignments:		10 points each
Field notebook:		30 points
Field study:		40 points
Mid-term exam:		40 points
Final examination:		50 points
Total Course Points:		400 points
Letter Grade Equivalence:	A	385-400 points
	B	360-384 points
	C	325-359 points
		less than 325 points – participation certificate only

**Policies**

Missed or late exams: One examination will take place approximately half-way through the course modules. Work will not be accepted on subsequent modules

until the mid-term exam is submitted. Completion of the course will not be final until the final examination is submitted. Until such time, no final grade or Certificate of Successful Completion will be issued.

Missed or late assignments: There is no maximum time limit on the completion of the course, but progress to the next module will not be allowed until all assignments for the current module are completed.

Plagiarism and Dishonesty: This course is strictly administered on the honor code. Any form of academic dishonesty, including plagiarism, will result in the immediate termination of your status as a course registrant or participant and forfeiture of 100% of any tuition paid. Additionally, no refunds will be allowed for any books purchased through BirdCountry.US.

### **Support Services**

Numerous resources are available for support while taking this course including, but not limited to, local and university libraries, internet libraries and databases, including the Cornell Laboratory of Ornithology, American Birding Association, American Bird Conservancy, National Audubon Society, and many others. All students are free to use whatever reputable resources are available to them in addition to the resources required for this course.

### **Course Evaluation**

In addition to the evaluation you will receive as outlined above, you will be asked to evaluate the instructor and all course materials at least twice during the course, one of which will be upon your completion of the course. These evaluations are entirely voluntary on your part and will not affect your grade in any way. General or specific comments on any particular part of the course are encouraged and accepted at any time.

### **Withdrawal Policy and Schedule**

All students may withdraw from this course at any time and receive a refund of tuition paid based on the following schedule:

Withdraw before the shipping of course materials (including any textbooks or supplemental books purchased through BirdCountry.US)	100%
Withdraw after receiving course materials but before completing Module 1	50%
Withdraw after completing Module 1, but before completing Module 4	33%
Withdraw after completing Module 4, but before mid-term exam	25%

No refunds will be given after completion of the mid-term exam

No returns or refunds will be allowed on any textbooks or other course materials purchased by the student from BirdCountry.US except as noted above.

### **Disclaimer**

This course syllabus is subject to change. However, no changes will be allowed, with the exception of the supplemental readings\* described above, after the student has registered for the course, without the express verbal or written (via email) consent of both the instructor and the student. If the consent is verbal, written consent (via email) by both the instructor and the student will be required within seven days of said change.