Avian Ecology (Ornithology) **A. H. Bledsoe**
Biological Sciences 1230
Summer 2016 (2097)

COURSE INFORMATION

INSTRUCTORS -- Anthony H. Bledsoe (faculty); Chris Haeckel and Luke Musher (teaching assistants)

FIELD TRIPS -- Weekday mornings; some trips will be all-day, and there will be one two-hour night trip.

LECTURES -- Most weekday afternoons, 1:15 - 2:00 pm.

LABORATORIES -- Most weekday afternoons, 2:15 - 3:30 pm.

REQUIRED BOOKS -- *The Sibley Guide to Bird Life and Behavior* (2001), by David A. Sibley, and *The Sibley Field Guide to Birds of Eastern North America* (2003), by David A. Sibley. Both of these books can be purchased at Pymatuning Laboratory of Ecology.

COURSE OVERVIEW

This course provides an introduction to the biology of birds, with an emphasis on basic avian anatomy, physiology, behavior, reproduction, and ecology. It combines field trips and field studies, lectures, and laboratory sessions. Throughout, the course emphasizes avian diversity and the relationship between form and function, with a focus on the ecological and evolutionary processes that have generated the diversity of birds on Earth.

EXAMINATIONS, ESSAYS, AND PROJECTS

Examinations. -- There will be three examinations in the course, each given on June 20, the last day of the course. The field exam is worth 100 points and will test your ability to identify the species of birds we observe during the course. The lecture exam is also worth 100 points and will consist of questions on definitions and terms, short answer questions, and essays. The laboratory exam, worth 100 points, will consist of questions that test your ability to identify specimens, structures, and the important characteristics of bird families.

Essays. -- There will be two required essays in the course, each worth 30 points. The essay assignments will be based on the field, lecture, and laboratory material and on original research articles we will read during the course.

Projects. -- We will perform two group projects during the course, each worth 20 points. One project will be on island biogeography; the other will involve song playback experiments.

GRADING

Your letter grade will be based on the points you earn during the course. For example, if you earn 300 out of the 400 possible points, your percentage is 75%. The following scale will be used to convert your percentage into a letter grade:

A+ 97.5% and up	A 92.5% - 97.4%	A- 90.0% - 92.4%
B+ 87.5% - 89.9%	B 82.5% - 87.4%	B- 80.0% - 82.4%
C+ 77.5% - 79.9%	C 72.5% - 77.4%	C- 70.0% - 72.4%
D+ 67.5% - 69.9%	D 62.5% - 67.4%	D- 60.0% - 62.4%

Percentages below 60.0% earn a grade of "F". If the average for an exam is below 75%, the class average will be subtracted from 75%, and the resulting value will be added to each student's exam score. The adjusted score will then be used in calculating your semester percentage.

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COURSE SCHEDULE

Date	Field	Lecture and Reading*	Laboratory
June 1	Identification of local species	Characteristics of birds (8-38)	Identification of non-passerines
June 67	Identification of local species	Avian diversity (39-50)	Identification of non-passerines and sound analysis
June 8	Presque Isle	no lecture	no laboratory
June 9	Volant grasslands	Avian history (51-79)	Identification of non-passerines
June 10	Erie National Wildlife Refuge	Avian systematics (80-106)	Identification of passerines
June 13	Clarion grasslands	no lecture	no laboratory
June 14	Identification of vocalizations; night trip	Feathers and Flight (107-120)	Feather structure and diversity
June 15	Allegheny National Forest	no lecture (bird family chapters)	no laboratory
June 16	Species-area curves for mainland areas	Physiology and feeding (bird family chapters)	Identification of passerines
June 17	Powdermill Nature Reserve	no lecture (bird family chapters)	no laboratory
June 20	Island biogeography	Communication (bird family chapters)	Analysis of species-area data
June 21	Song playback experiment	Annual cycle, migration and navigation (bird family chapters)	Analysis of playback data
June 22	National Aviary and Carnegie Museum of Natural History	no lecture (bird family chapters)	no laboratory
June 23	Review of local species	Reproduction and nesting (bird family chapters)	Review of specimen identification
June 24	Field test	Lecture test	Laboratory test

* Parentheses denote page numbers or sections in the text *The Sibley Guide to Bird Life and Behavior*.