

# Biology 305: FIELD ORNITHOLOGY

May Term

90 Contact hours

Instructor: David Lahti

The **main objectives** of this course are:

- (1) to present a basic understanding of the biology of birds, including their diversity, evolution, morphological and behavioral adaptations, and ecology;
- (2) to provide training and practice in the location and identification of birds in their natural habitat by sight and ear, with particular emphasis on the breeding birds of the Great Lakes and northeast;
- (3) to provide an introduction to current topics and methods in ornithology, including field- and literature-based research and writing; and
- (4) to cultivate a respect for birds, and an understanding of bird conservation issues and practice.

Course **summary**:

- The academic week is 8:00 Tuesday through 5:30 Saturday.
- Thirteen informal lectures will cover major topics in bird biology and conservation. Video presentations, handouts from the instructor, and assigned readings in Gill's *Ornithology* will supplement this material.
- Informal overviews will cover the major North American bird families, and a presentation will provide a sampling of some other birds of the world.
- Frequent field excursions will provide opportunities for field identification and experience of the appearance, vocalization, and habits of eastern birds. These experiences will be augmented by resources such as bird song recordings and *Peterson's Field Guide*.
- Observational research projects will be conducted by each student in the class, including the use of established observational methods and final reports that incorporate information gathered from the literature.
- A field notebook will be kept by each student and assessed by the instructor at the end of the term.
- Four quizzes will cover bird identification, including common names of species by sight or ear, the scientific names of families and orders, and major features of avian anatomy. Quizzes will involve identifying birds in the field, as well as identifications performed in class. The ongoing list of species that are fair game for the quizzes will include species seen in the field by the class or displayed as specimen skins.
- Two exams will cover lecture, text, and presentation material.

- This course is informal and interactive, and should always be considered so, including during lectures and presentations. Students should feel free to ask questions or make comments at any time.

**Tentative timetable:**

<i>Date</i>	<i>Topic / Activity</i>
Tue 5/18 topical lecture: other activity:	Introduction to birds / Birds and humans Course introduction am Integrative session Introduction to birding
Wed 5/19 topical lecture: bird overview: other activity:	Evolutionary history Loons, grebes, tubenoses, pelicans, cormorants Birds of the world presentation Development of field research project
Thu 5/20 topical lecture: bird overview: other activity:	Anatomy Hérons, bitterns, ibises, storks, flamingos, waterfowl Field trip to Grass River Natural Area Quiz 1
Fri 5/21 topical lecture: bird overview: other activity:	Flight Diurnal birds of prey, fowl-like birds, cranes, rails, shorebirds, gulls Field trip to Jordan River Valley
Sat 5/22 topical lecture: bird overview: other activity:	Brain and senses; Feeding Pigeons, parrots, cuckoos, owls, nightjars, swifts, hummingbirds Field research topic due
Tue 5/25 activity:	Field trip to Sleeping Bear Dunes (with Natural History class)
Wed 5/26 topical lecture: other activity:	Migration Attenborough Life of Birds episode Quiz 2 pm Integrative session
Thu 5/27 topical lecture: bird overview: other activity:	Vocal communication kingfishers, woodpeckers, flycatchers, shrikes, vireos, crows, jays Midterm Lecture Exam
Fri 5/28 topical lecture:	Sexual selection and mating

bird overview: other activity:	waxwings, thrushes, Old World flycatchers, starlings, mimics, nuthatches, creepers Attenborough Life of Birds episode
Sat 5/29 topical lecture: bird overview:  other activity:	Parental care; Cooperative and communal breeding Wrens, titmice, swallows, kinglets, Old World warblers Brood parasitism presentation Quiz 3
Tue 6/1 activity:	Field trip to the Upper Peninsula Integrative session
Wed 6/2 activity:	Upper Peninsula, returning in the evening
Thu 6/3 topical lecture: bird overview: other activity:	Species and speciation Larks, Old World sparrows, pipits, finches, sparrows Quiz 4
Fri 6/4 topical lecture: bird overview:  other activity:	Conservation: issues, research, implementation, policy Wood warblers, tanagers, cardinal-grosbeaks, orioles, blackbirds Field trip to Kirtland's Warbler habitat
Sat 6/5	Final lecture exam Field project reports due Field notebooks due

### Grading

4 ID quizzes @ 25 points	100
2 exams @ 100 points	200
Field project & report	100
Field notebook	<u>100</u>
	500

### Required Texts

Frank B. Gill, *Ornithology*

*Peterson's Guide to the Birds of Eastern and Central North America*