

ORNITHOLOGY - EEB 114A

Spring 2006

Lecture and Discussion: T, Th 12:30-1:45 pm; La Kretz Hall 120

Laboratory: Th 2:00-4:50 pm, Life Sciences 1113

Instructor: Professor Thomas B. Smith, La Kretz Hall 300Q, Tel: 206-4712, Office Hours: T 1:45-2:45 pm or by appointment

TA: Jaime Chaves, LS 5303, Tel: (310) 895-0645, Office hours: M and T 1:45-2:45 pm or by appointment

LECTURE SCHEDULE

Week	Date	Topic	Chapters & Readings
Week 1	4 April 6 April	Intro; Origin and diversity of birds Origin and diversity of birds	Ch. 1-3 Reading 1
Week 2	11 April 13 April	Structures and mechanics of flight Structures and mechanics of flight	4,5 Reading 2
Week 3	18 April 20 April	Physiology I Physiology I	6,8,11,15,18,19 Reading 3
Week 4	25 April 27 April	Physiology II Physiology II	6,8,11,15,18,19 Reading 4
Week 5	2 May 4 May	***Midterm Exam*** Trophic design	7 Reading 5
Week 6	9 May 11 May	Patterns and mechanics of migration Patterns and mechanics of migration	12, 13 Reading 6
Week 7	16 May 18 May	Communication, visual and vocal Communication, visual and vocal	9,10 Reading 7
Week 8	23 May 25 May	Social Behavior and mating systems Social Behavior and mating systems	14,16,17, 19 Reading 8
Week 9	30 May 1 June	Demography and life history strategies Demography and life history strategies	20,21 Reading 9
Week 10	6 June 8 June	Competition, adaptation and speciation Conservation	23,24 Reading 10
	13 June	***Final Exam***	

LABORATORY SCHEDULE

Laboratory: Th 2:00-4:50 pm, Life Sciences Building 1113

TA: Jaime Chaves, LS 5303, Tel: (310) 895-0645, Office hours: M and T 1:45-2:45 pm or by appointment

Week	Date	Topic
Week 1	6 April	External Anatomy and Functional Morphology; Introduction to Bird Identification in the field.
Week 2	13 April	Field Trip: Malibu Lagoon
Week 3	20 April	Internal Anatomy (Part 1); Field Techniques in Ornithology (mist-netting techniques: identifying, aging and sexing birds in the hand, taking measurements, etc.)
	22 April	Saturday Field Trip: Stunt Ranch Reserve (Santa Monica Mountains), Mist-netting demonstration
Week 4	27 April	Internal Anatomy (Part 2); Birds of the World (Ratites to Strigiformes)
Week 5	4 May 5-7 May	Birds of the World (Galliformes to Piciformes) Weekend Field Trip – Kern River Valley
Week 6	11 May	Birds of the World (Passeriformes)
Week 7	18 May	***Lab Practical***
Week 8	25 May	Guest Lecturer: TBA
Week 9	1 June	Field Trip: Malibu Creek
Week 10	8 June	Guest Lecturer TBA

Exams:

Lecture: Midterm Exam: 2 May; Final Exam: June 13
Laboratory: May 18

Discussions:

For a portion of each Thursday's meeting we will discuss a paper from the primary literature. Students will team up into pairs to lead the discussion. The emphasis will be on generating discussion -- summaries of papers should be no more than 10 minutes.

Laboratory and Field Trips:

Labs will cover a variety of subjects including:

- 1) External and internal anatomy of birds

- 2) Field identification through day and weekend field trips. **Students are required to attend all field trips.** Please make special arrangements with employers, families and friends well in advance of these events. A university van will be available for most field trips, although students are also expected to carpool. Students will be asked to share the cost of food and fees for week-end field trips.
- 3) Survey of birds of the world
- 4) A brief survey of molecular genetic approaches and uses in the study of avian ecology, systematics and evolution.

Required Texts:

Gill, F. B. 1994. *Ornithology, Second Edition*. W. H. Freedman and Co. New York
 Sibley, D.A. 2000. *National Audubon Society Sibley Guide to Birds*, Alfred A. Knopf, New York.
 Ornithology Reader (Available at Course Reader Material, 1137 Westwood Blvd.)

Useful References

Brooke, M. B. and T. Birkhead. 1991. *The Cambridge Encyclopedia of Ornithology*. Cambridge University Press.
 Ehrlich P. R., D. S. Dobkin, D. Wheye. 1988. *The Birder's Handbook: A Field Guide to the Natural History of North American Birds*, Simon & Schuster, New York.
 Feduccia, A. 1980. *The Age of Birds*. Harvard University Press, Cambridge.
 National Geographic Society. 2002. *National Geographic Field Guide to the Birds of North America, Fourth Edition*, National Geographic Society, Washington D. C.
 Perrins, C. M. 1990. *The Illustrated Encyclopedia of Birds*. Prentice Hall. N. Y.
 Peterson, R. T. 1990. *A Field Guide to Western Birds*. Houghton Mifflin Co.
 Robbins, C.S., B. Bruun, and H. S. Zim, 1983. *A guide to identification: Birds of North America*, revised ed. Golden Press.
 Sturkie, P. D. 1976. *Avian Physiology*. New York: Springer-Verlag.
 Welty, J. C. and L. Baptista. 1988. *The Life of Birds, 4th ed.* Saunder College.

Useful WEB sites:

Cornell Lab of Ornithology www.ornith.cornell.edu
 American Ornithologists Union www.nmnh.si.edu/BIRDNET/AOU
 Sutton Avian Research Center www.suttoncenter.org
 Ornithological Societies of North America www.nmnh.si.edu/BIRDNET/OSNA
 TNC-Wings www.tnc.org/wings/wingresource/birddata.htm

Supplementary Materials:

Binoculars, field notebook, basic camping equipment (tent, sleeping bag, and sleeping pad).

Grading:

Your grade in the course will be based on lecture and lab exams, class participation, and attendance and participation on field trips. Exams cannot be rescheduled. Grades are based on the following percentages:

Midterm Exam	30%
Final Exam	30%
Class Discussion	5%
Lab Practical	25%
Lab Quizzes	10%