

Natural History of Birds -- Environmental Studies 106A Summer Session 1 (June 22 – July 24, 2009)

Time: MWF 0830-1200 (some Friday field trips may be longer)
Place: Room #221 ISB
Instructor: Breck Tyler (ospr@ucsc.edu)
Website: ic.ucsc.edu/~ospr/envs106a/

Course specifics: This five-week course covers the evolution, adaptations, diversity, ecology, and conservation of birds. Monterey Bay area communities and issues are emphasized. Open to environmental studies majors, biology majors, and interested non-majors with an understanding of basic ecology. Enrollment is limited to 24 students.

Prerequisite(s): ENVS 105/Biology 138 is recommended. Enrollment restricted to junior and senior students. First-year students and sophomores with background in ecology may request permission of instructor to enroll.

Format: Class meetings feature lectures complemented by labs, field sessions, and discussions of conservation issues. Field trips and independent fieldwork are required. Observation of birds in natural habitats is an essential element of the course.

Tentative Course schedule

<u>Day</u>	<u>Lectures & discussions</u>	<u>Labs</u>
Mon 6/22	Wings and flight	Intro to field observation
Wed 6/23	Avian origins and systematics	Functional morphology
Fri 6/25	Field: Davenport/Waddell Creek	
Mon 6/29	Feeding and communication	Topographic anatomy
Wed 7/1	Migration and molt	Arboretum: hummingbirds
Fri 7/3	Field: Neary's Lagoon	
Mon 7/6	Mating and social systems	Cooperative breeding
Wed 7/8	Nesting behavior and ecology	
Fri 7/10	Field: Elkhorn Slough kayak (~0830-1230)	
Mon 7/13	Seabird and shorebird ecology	Waterbird taxonomy
Wed 7/15	Field: Natural Bridges SP	
Fri 7/17	Lecture and field trip review	Lab review
Mon 7/20	Exam	
Wed 7/22	Terrestrial birds conservation seminar	
Fri 7/24	Marine birds conservation seminar Final paper and field notebook due	

Evaluations:	Exam (essay & practical)	~33%
	Field observation assignments	~33%
	Conservation presentation	~16%
	Final paper (5-8 pages)	~17%

Field Trips are as follows:

Davenport cliffs (seabirds) & Rancho del Oso (chaparral and forest birds)

Neary's Lagoon: marsh birds

Elkhorn Slough kayak: waders and water birds

Natural Bridges SP

Required materials (bring with you every day of class):

Field notebook – minimum size 5"x 8"

Bird identification guide (recommended options listed here)

National Geographic Society (5th ed). 2006. Field Guide to the Birds of North America.

Sibley, D.A. 2000. The Sibley Guide to Birds.

Sibley, D.A. 2003. The Sibley Field Guide to Birds of Western North America.

Peterson, R.T. 2008. Field Guide to Birds of North America.

Binoculars (see binoculars link or contact instructor for advice)

Supplemental texts:

Handbook of Bird Biology. 2004. S. Podulka et al (eds)

Ornithology (3rd edition). 2006. F.B. Gill

Sibley's Birding Basics. 2002. D.A. Sibley

Seabirds: A Natural History. 2004. A.J. Gaston

Instructor:

Breck Tyler is a Principal Investigator (researcher) and Lecturer affiliated with the Institute of Marine Sciences at UCSC. His professional interests include behavioral ecology, marine conservation, and teaching undergraduate field courses. He has 30 years experience studying birds and mammals in California, the Pacific Northwest, Mexico, Alaska, and Hawaii. He is Principal Investigator for programs to monitor seabird populations and to prevent and assess injury to marine birds and mammals during oil spills.

Breck has been a lecturer at UCSC since 1991, teaching courses in field natural history, ornithology, and the biology of marine birds and mammals. Of his teaching philosophy, he says, "I believe that the best way to learn about the natural world is to observe it first hand. All of my courses feature significant time in the field. My goal is to teach students to observe critically – to identify species, describe behaviors, and recognize ecological patterns. Once

mastered, these skills enable students to continue to learn throughout their lives whether their interests are personal or professional.”