

**Natural History of Birds -- Environmental Studies 106A**  
**Summer Session 1 (June 22 – July 24, 2015)**

Time: MWF 0830-1200 (some Friday field trips may be longer)  
 Place: Room #221 ISB  
 Instructor: Breck Tyler ([ospr@ucsc.edu](mailto:ospr@ucsc.edu))  
 Website: <https://ecommons.ucsc.edu/x/MxF0y9>

**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.

**Prerequisite(s):** previous or concurrent enrollment in courses 100 and 100L, or by permission of instructor. ENVS 105 or Biology 138 is recommended. Enrollment limited to 30.

**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.

**Course schedule**

<u>Day</u>	<u>Lectures &amp; discussions</u>	<u>Labs</u>
Mon 6/22	Flight	Intro to field observation
Wed 6/24	Avian origins - are birds dinosaurs?	Topographic anatomy
Fri 6/26	Field: Davenport/Waddell Creek	
Mon 6/29	Feeding and foraging	Functional morphology
Wed 7/1	Migration and molt	Arboretum: hummingbirds
Fri 7/3	Holiday	Optional Field: Neary's Lagoon
Mon 7/6	Communication	Landbird families
Wed 7/8	Seabird and shorebird ecology	Waterbird families
Fri 7/10	Field: Elkhorn Slough kayak (~0830-1230)	
Mon 7/13	Mating systems, nesting behavior	Passerine families
Wed 7/15	Field: Natural Bridges SP	
Fri 7/17	Exam review	Lab review
Mon 7/20	Exam	
Wed 7/22	Conservation presentations; field notebook due	
Fri 7/24	Final paper due	

<b>Evaluations:</b>	Exams (essay & practical)	35%
	Field observation assignments	35%
	Conservation presentation	15%
	Final paper (5-8 pages)	15%

**Field Trips** are as follows:

Davenport cliffs (seabirds) & Big Basin SP (chaparral and forest birds)  
 Neary's Lagoon: marsh birds  
 Elkhorn Slough kayak: waders and seabirds  
 Natural Bridges SP: coastal and woodland species

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

Field notebook –size 5”x 8” or larger

Bird identification guide (choose one of these or a similar guide)

National Geographic Society (6<sup>th</sup> ed). 2011. Field Guide to the Birds of North America.

Sibley, D.A. 2012. The Sibley Guide to Birds, 2<sup>nd</sup> edition.

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

Binoculars (see binoculars link or contact instructor for advice)

**Supplemental texts:**

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

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

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

**Instructor:**

**Breck Tyler** is a researcher 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. These skills will allow you to continue to learn throughout life whether your interests are personal or professional.”