

# Biology 244

## Seminar in Evolutionary Ecology

**INSTRUCTORS:** Course co-ordinator: Dr. Sara Lewis (Barnum 101, sara.lewis@tufts.edu) with Drs. Orians, Reed, Pechenik, Starks.

**CLASS MEETINGS:** Tuesdays 1:30-3:30 pm in Barnum 207

**COURSE DESCRIPTION:** This graduate seminar course will consist of weekly discussions of selected topics in evolutionary ecology, based on readings of both classic (1860's-1980's) and recent papers. All participants in the seminar will be responsible for reading assigned papers and submitting weekly 1-2 page commentary papers. Discussions will be led by pairs of students, who will present a short overview of the main issues and facilitate in-class discussion.

**PREREQUISITES:** Biology 71: Population & Community Ecology (or equivalent) and instructor's consent.

**TEXT:** None, although any self-respecting evolutionary ecologist should certainly read Charles Darwin's *Origin of Species*. If you don't already own a copy, we recommend that you buy it: a good unabridged version (edited by J. Carroll, 1<sup>st</sup> edition compared against 2<sup>nd</sup>,) is available for \$9.95 from Amazon (ISBN1551113376). All other course readings will be distributed in class or via email.

**GRADES:** Course grades will be based on weekly written commentary papers, discussion leadership, and general class participation.

### COURSE TOPICS

Jan 27	Lewis: Course Overview & Advanced Literature Searches @ Tisch
Feb 3	Lewis: Conceptual and Experimental Approaches in Ecology
Feb 10	Reed: Metapopulation Ecology
Feb 17	Reed: Metapopulation Ecology
Feb 24	Lewis: Measuring Natural & Sexual Selection
March 2	Lewis: Measuring Natural & Sexual Selection
March 9	Pechenik: Aspects of Life-History Evolution in Aquatic Animals
March 16	Pechenik: Aspects of Life-History Evolution in Aquatic Animals
March 30	Starks: Ecology and Evolution of Recognition Systems
April 6	Starks: Ecology and Evolution of Recognition Systems
April 13	Orians: Plant-Herbivore Interactions: Molecular, Physiological and Evolutionary Perspectives
Apr 20	Orians: Plant-Herbivore Interactions: Molecular, Physiological and Evolutionary Perspectives
Apr 27	All: Final Discussion & Course Wrap-up