

# Biology 244

## Seminar in Evolutionary Ecology

**INSTRUCTORS:** Course co-ordinator: Sara Lewis (Barnum 101, sara.lewis@tufts.edu) with Colin Orians, Erik Dopman, Jan Pechenik, Phil Starks.

**CLASS MEETINGS:** Wednesdays 1.30 - 4 pm in Barnum 113 (Block 7)

**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 142 (Population & Community Ecology) +/-or Bio 143 (Evolutionary 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 \$13 from Amazon (ISBN 1551113376). Another excellent choice is *From So Simple a Beginning* (ed. by E.O. Wilson), a hardback which includes four of Darwin's greatest hits —*Voyage of the H.M.S. Beagle* (1845), *The Origin of Species* (1859), *The Descent of Man* (1871), and *The Expression of Emotions in Man and Animals* (1872)— all under one cover for ~\$40 (ISBN 0393061345). All other course readings will be distributed in class or posted to the Bio 244 Blackboard site.

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

### 2010 COURSE TOPICS

Jan 27	Lewis: Course Overview
Feb 3	Lewis: Conceptual & Methodological Issues
Feb 10	Starks: Levels of Analysis
Feb 17	Lewis: Measuring Natural & Sexual Selection
Feb 24	Lewis: Measuring Natural & Sexual Selection
March 3	Dopman: Speciation
March 10	Dopman: Speciation
March 17	Dopman: Speciation
Mar 31	Orians: Plant-Herbivore Interactions – Invasive Species
Apr 7	Orians: Plant-Herbivore Interactions – Invasive Species
Apr 14	Pechenik: Phenotypic Plasticity
Apr 21	Pechenik: Phenotypic Plasticity
April 28	Lewis: Final Discussion – Synthesis & Outreach Ideas