Advanced Topics in Evolution Fall 2005  
Biol 644 (3 credits)

Instructor: Link Olson  
Museum  
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Office Hours: Wednesdays 2-3, Museum (or by appt.)

Meeting time and place: Thursdays, 2-5, WRRB conference room.

Course materials: We will read and discuss the following two required texts:

2nd ed. Sinauer Assoc., Sunderland, MA.


Additional required and recommended readings from the primary literature will be assigned throughout the semester.

Course description (specific to Fall 2005): Despite the fact that UAF is the only university located in what was once Beringia, one of the best-studied continental landbridges formerly linking Asia and North America, no biogeography course has been offered here for several years. It is hoped that this course will help fill that gap for students who wish to become more knowledgeable about biogeography. This course will cover chapters in two recent books and additional readings from the primary literature on biogeography and molecular methods used to study biogeography.

Course prerequisites: Undergraduate course in evolution or permission of instructor.

Course goals and expected outcomes: My intent is to provide students with little or no previous course experience in biogeography or molecular analytical techniques with the conceptual background and grasp of current issues useful for conducting research relating to biogeography, particularly the use of molecular phylogenetics and phylogeography to test biogeographic hypotheses. Students will be expected to read, critically evaluate, discuss, and debate the recent literature dealing with the study of biogeography. Students with current or planned research projects amenable to biogeographic analysis will be expected to be able to apply the knowledge gained in this course to their studies.

Course instruction will consist of weekly readings and discussions, with occasional guest lecturers and/or guest participants active in the field of biogeography. We will also attend and later discuss seminars germane to biogeography as the opportunity presents itself (e.g., Peter and Rosemary Grant's lecture the first week of class).

Course policies: Regular attendance and participation is mandatory. Exceptions will be considered on a case-by-case basis.
**Disabilities Services:** The Office of Disability Services implements the Americans with Disabilities Act (ADA), and insures that UAF students have equal access to the campus and course materials. We will work with the Office of Disabilities Services (203 Whit., 474-7043) to provide reasonable accommodation to students with disabilities.

**Evaluation/grading:** 45% leadership in group discussions and preparation for discussion, 45% participation in group discussion, 10% attendance.

- A  90-100
- B  80-89
- C  70-79
- D  60-69
- F  59 or below

**Additional course information:**

*Effective Fall 2005, students may now take Biol 644 multiple times for credit (when content varies).*