EEB 583: Zoogeography[1] **SYLLABUS** **Spring Semester 2015**

Instructors	Dr. Dan Simberloff (S)	480 Dabney	974-3065	dsimberloff@utk.edu
	Dr. Sandy Echternacht (E)	530 Hesler	974-3065	echterna@utk.edu

Text Lomolino, M. V., B. R. Riddle, R. J. Whittaker and J. H. Brown. 2010. Biogeography, 4th Ed. Sinauer Associates, Inc. Sunderland, Massachusetts

Lecture Tuesdays and Thursdays 12:40-1:55 PM 575 Dabney

Day	Date	Lecturer	Topic	Chapter(s)
Th	8 Jan	E	The Science and History of Biogeography	1, 2
T	13	E	Limits of Species Ranges: Physical Factors	4
Th	15	E	Limits of Species Ranges: Other Species	4
T	20	S	Limits of Species Ranges: Dispersal and Immigration	6
Th	22	S	Areography and Macroecology: Sizes and Shapes of Species Ranges	15
T	27	E	Speciation and Extinction: Speciation	7
Th	29	E	Speciation and Extinction: Diversification and Extinction	7
T	3 Feb	E	Continental Drift	8
Th	5	E	The Pleistocene	9
T	10	S	Pleistocene Refugia and Refuge Theory	9
Th	12	E	Biogeographic Patterns: Maintenance of Distinct Biotas	10
T	17	S	Vicariance Biogeography	12
Th	19	M	Dispersal vs. Vicariance and How to Assess Their Relative Importance (M = Dr. Nick Matzke[2])	12
T	24	M	Dispersal vs. Vicariance … continued (M = Dr. Nick Matzke[1])	12
Th	26	-	**Examination No. 1**	-
T	3 Mar	E	Panbiogeography	12
Th	5	S	Species Invasions and Biogeography	12
T	10	S	Island Biogeography: Species-Area Relationships	13
Th	12	S	Island Biogeography: Equilibrium Theory (Deadline for approval of term paper topics)	13
T, Th	17, 19	-	S**pring Break**	-
T	24	E	Island Biogeography: Evolutionary Trend, Plants	13
Th	26	E	Island Biogeography: Evolutionary Trends, Animals	13
T	31	S	Biogeographic Patterns: Taxon Cycle	10, 14
Th	2 Apr	S	Biogeographic Patterns: Relationships Between Distribution and Abundance	-
T	7	E	Biogeographic Patterns: Species Richness	15
Th	9	E	Biodiversity and the Geography of Extinctions	16
T	14	E	Applied Biogeography	17
Th	16	F	Gene Geography (F = Dr. Ben Fitzpatrick[2])	-
T	21	S	Geographical Patterns in Morphology: Clines and Bergmann's Rule (Deadline for submission of term papers)	15
Th	23	S	Geographical Patterns in Morphology: Character Displacement and the Island Rule	15
W	29	-	**Examination No. 2** (10:15 – 12:15 AM in 575 Dabney)	-

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[1] Zoogeography (EEB 583) is actually a biogeography course. The course title "Biogeography" was preempted by the biogeography course (Geography 435) taught by Dr. Sally Horn.

Office Hours: Dr. Simberloff 2:00 - 3:00 PM Tuesdays and Thursdays 480 Dabney
Dr. Echternacht 2:15 - 3:15 PM and 5:15 - 6:00 PM Thursdays 530 Hesler

Examinations and Grading. Examinations will be essay in format and will require knowledge of the material presented in lectures as well as the assigned text chapters. Grades will be based solely on the two lecture examinations (100 points each) and the term paper (100 points).

Term Paper. Examples of possible term paper topics will be discussed in class but your choice will not be limited to these. If you are a graduate student, your topic may or may not be relate to your thesis or dissertation research. For the purposes of the class, assume that you will be submitting your paper to the *Journal of Biogeography* and format it accordingly, including the method of citing sources in the text and the format of the Literature Cited section of the paper. The paper must not exceed 20 double-spaced pages excluding the Literature Cited and any figures or tables you may choose to include. Note that the topic you select *must be approved by both course instructors no later than Thursday March 12th* and a copy of the final paper *must be submitted to each instructor no later than Tuesday, April 21st.* Papers must be submitted electronically as a Word or rtf document. Submission of papers before the due date is encouraged.

Academic Integrity: Your continued participation in this class assumes that you abide by the University of Tennessee Honor Code (Undergraduate Catalog 2014-2015): "An essential feature of the University of Tennessee, Knoxville, is a commitment to maintaining an atmosphere of intellectual integrity and academic honesty. As a student of the University, I pledge that I will neither knowingly give nor receive any inappropriate assistance in academic work, thus affirming my own personal commitment to honor and integrity."

Disabilities: If you need course adaptations or accommodations because of a documented disability, or if you have emergency information to share, please contact the Office of Disability Services. This will ensure that you are properly registered for services. Campus location: 2227 Dunford Hall. Phone: 865-974-6087. E-mail: ods@utk.edu. Website: http:ods.utk.edu.

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[1] **Dr. Matzke** is a postdoctoral fellow at NIMBioS (National Institute for Mathematical and Biological Synthesis) located at the University of Tennessee, Knoxville.

Read *before* Dr. Matzke's presentations: Matzke, N.J. 2013. Probabilistic historical biogeography: new models for founder-event speciation, imperfect detection, and fossils allow improved accuracy and model-testing. Frontiers of Biogeography 5:242-248.

Supplemental reading after Dr. Matzke's presentation for those interested in additional coverage: Matzke, 2014. Model selection in historical biogeography reveals that founder-event speciation is a crucial process in island clades. Systematic Biology 63:951-970.

[2] **Dr. Fitzpatrick** is a member of the EEB faculty at the University of Tennessee, Knoxville

Supplemental reading before (if you have a background in population genetics), after if Dr. Fitzpatrick's lecture will be your first exposure to the subject.