

Welcome to Zoogeography! This course is best suited for 3<sup>rd</sup> or 4<sup>th</sup> year students with a basic background and interest in ecology, evolution and geography. We will cover topics on climate and climate change, species distributions, patterns of diversity, speciation and extinction, evolutionary lineages and island biogeography, to name a few key areas. Classes are a combination of lecture, tutorial exercises and in-class discussion based on assigned readings. You will be expected to read and critique scientific papers relevant to course material and to conduct searches in primary literature for your assignments.

**Instructor:** Jill Jankowski

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**Marking Breakdown:**

Canvas assignments	25%
Mid-term Exam	20%
Term Paper	30%
Final Exam	25%

**Exams:** There are two exams in the course: a mid-term and a final exam. The general format for both exams is short answer and essay. The midterm exam is scheduled during class in the week following Winter Break. The final exam will be during finals weeks and the time and place will be announced as soon as it is known.

**Policy on Missed Exams:** Exams can be made up only if I am notified before the exam is given. If you cannot take the exam at the scheduled time, you can arrange to take the exam beforehand. In the case of unforeseeable circumstances, marks may be adjusted to make up for a missed exam.

**Discussion Groups and Paper Assignments:** NOTE THAT WE WILL BE MIGRATING THE COURSE OVER TO CANVAS BY JANUARY 20<sup>TH</sup>. ASSIGNMENTS AND INSTRUCTIONS WILL BE POSTED IN CANVAS).

Assignments from readings and tutorials (see below) will constitute the 25% Canvas Assignments portion of your final grade.

Assigned Readings & Assignments: There will be ~5 paper assignments and discussion groups to provide in-depth coverage of major topics in the course. Group discussions will take place on Friday during lecture hour. We will provide a brief summary of the paper at the beginning of class, followed by a discussion among students in groups of four to five. You should come to class having read the paper and with at least three of your own questions to facilitate discussion within your groups. Following discussion you will submit answers to a series of questions that we provide for you.

Tutorials & Workshops: For ~4 of the Friday discussions, we'll be doing exercises in R. These activities (and associated assignments) are designed to give you a working knowledge of R and to help you with components of your Term Paper Assignment.

**Term Paper Assignment:** For your term paper, you will choose an animal species, genus or family, and describe the natural distribution, habitat use and phylogeny of its groups (e.g., subspecies, species or genera). You will also summarize the current understanding of events and processes that have resulted in their distribution (i.e., the hypothesized phylogeographic history). We will spend lectures during the first part of the term on fundamental concepts in biogeography, which you can use to develop your paper. This assignment, including the outline and final draft, will be 30% of the mark for the course.

**Required Texts:** There is no required textbook for Zoogeography, but an excellent option for a reference text is *Biogeography* by Mark Lomolino, Brett Riddle and James Brown. There are two copies of this book reserved at Woodward Library. Many of the themes in lecture will overlap with material in this book.

**Literature Search:** Students will become familiar with primary literature in this course. References for case studies and examples used in lecture are listed at the end of each section. Accessing and searching literature databases will also be an important component of your term paper. Web of Science and Google Scholar are two reliable search engines that you can use, but there are many others out there.

**Plagiarism:** There is zero tolerance for plagiarism in any form. Writing will be a major component of work in this course, through your assignments and term paper. It is critical that you generate your own ideas and give proper credit for the ideas of others. Please refer to the following UBC website for information regarding plagiarism and academic integrity: <http://learningcommons.ubc.ca/resource-guides/avoiding-plagiarism/>

## Zoogeography

## Lecture Schedule

## Winter Term 2 – 2021

Date	Topic	Assignments
Jan 11 (M)	Introduction	
Jan 13 (W)	Geography & Climate	
Jan 15 (F)	Species Distributions	
Jan 18 (M)	Determinants of Distributions	Assign Discussion 1 reading
Jan 20 (W)	Evolution of Distributions	
Jan 22 (F)	Discussion & GBIF	
Jan 25 (M)	Dispersal	Assignment 1 Due, Assign Discussion 2 reading
Jan 27 (W)	Dispersal	
Jan 29 (F)	R Tutorial – Mapping species	
Feb 1 (M)	Speciation	Assignment 2 Due, Assign Discussion 3 reading
Feb 3 (W)	Speciation	
Feb 5 (F)	R Tutorial – Mapping species	
Feb 8 (M)	Glaciation	Assignment 3 Due
Feb 10 (W)	Glaciation	
Feb 12 (F)	Discussion (Glaciation)	Paper Outline Due; Post Practice Midterm
<b>Feb 15-19</b>	<b>Winter Break (No Class)</b>	
Feb 22 (M)	Midterm Review	Return Outlines for Paper Assignment
Feb 24 (W)	Midterm	
Feb 26 (F)	Phylogeography Workshop	
Mar 1 (M)	Continental Drift	
Mar 3 (W)	Evolutionary Lineages	
Mar 5 (F)	Discussion (Phylogeography)	
Mar 8 (M)	Phylogenetic Communities	Assign Discussion 4 reading
Mar 10 (W)	Geography of Communities	
Mar 12 (F)	Discussion (Phylo. Comm.)	
Mar 15 (M)	Endemism	Assignment 4 Due, Assign Discussion 5 reading
Mar 17 (W)	Island Biogeography	
Mar 19 (F)	Discussion (Community Units)	
Mar 22 (M)	Island Biogeography	Assignment 5 Due, Assign Discussion 6 reading
Mar 24 (W)	Diversity & Gradients	
Mar 26 (F)	Workshop	
Mar 29 (M)	Diversity & Gradients	Assignment 6 Due
Mar 31 (W)	Biodiversity & Extinction	
<b>Apr 2 (F)</b>	<b>Good Friday (No Class)</b>	Optional: Submit first draft for feedback
<b>Apr 5 (M)</b>	<b>Easter Monday (No Class)</b>	
Apr 7 (W)	Climate Change	
Apr 9 (F)	Climate Change	
Apr 12 (M)	Climate Change	
Apr 14 (W)	Frontiers in Biogeography	Final Paper Due @ 4pm
<b>Apr 16 (F)</b>	<b>(No Class – End of Term)</b>	Exam date and time TBA

