Project 1: Diversity Patterns

# Overview

Students will investigate one or more diversity patterns in their study system (or a system of their choice). The spatial and taxonomic scale are up to the students. For well-studied systems (e.g., all mammals globally), the work does not need to be exhaustive but if there are relatively few papers for the chosen subject (20 or fewer) then all of them should be included. Topics should be broad enough that students read between 10 and 20 papers.

## Rationale

The goals of this assignment are to provide you with an overview of diversity patterns in your system, familiarity with hypothesized mechanisms underlying those diversity patterns and how they can be tested, practice synthesizing knowledge from scientific publications, and experience with critical evaluation of scientific studies.

## Assignment Format

You will write a 2-page (double spaced) summary of what is known about your chosen topic. This text should be written as though it was a portion of the introduction section of a paper that you’re writing. In addition to describing the diversity pattern(s) themselves, papers should include discussion of other relevant details including (but not limited to) possible mechanisms, tests of those mechanisms, and any limitations of current knowledge and studies. In-text citations and a complete reference section should be included, but they do not count against the page limit. Assignments will be submitted via Canvas.

## Grading

Students will be graded on both the scientific content of their work and the quality and style of the writing.

*Grade Breakdown:*

* At least ten papers were referenced in the text 30%
* Spatial or temporal patterns described 30%
* Mechanisms underlying patterns were discussed 20%
* One or more additional aspects (e.g. testing) discussed 10%
* Writing quality 10%
* Up to 10% will be deducted for excessive length -10%