

- DRAFT -

BIOGEOGRAPHY & BIODIVERSITY  
Group Contract, Fall 1996  
Faculty Sponsor: Peter Taylor

The primary subject was biogeography, a field of natural science dedicated to describing, analyzing, and explaining the distributions of plants and animals, drawing from associated fields, including ecology, evolutionary biology, phylogenetic systematics, and earth science. The texts were *Biogeography* (Brown & Gibson), *After the Ice Age: the Return of Life to Glaciated North America* (Pielou), *A Primer of Conservation Biology* (Primack), and *Nature Reserves: Island Theory and Conservation Practice* (Shafer). The latter two books addressed conservation biology, which was a secondary subject of this program. The lectures featured topics of biogeography and conservation biology of the Pacific Northwest (featuring the Olympic Peninsula, Mount Saint Helens' eruption and ecological recovery, Mount Rainier National Park, Pacific salmon and trouts, and Washington's rare plants), New Zealand, and the Hawaiian Islands. Videos having strongly biogeographic and/or conservation content were shown about East Africa's Great Rift, Mount Saint Helens (eruption and recovery), New Zealand, Madagascar, Hawaiian Islands, Galapagos Islands (Darwin's finches), and the Mammoth (causes of extinction).

Four one-day field trips were conducted, respectively, to Puget Trough prairie preserves, Mount Rainier National Park, Mount Saint Helens Volcanic National Monument (volcanic disturbance and ecological recovery), and to Kennedy Creek (spawning salmon).

Weekly seminars were based on assigned reading in four books: *The Klamath Knot: Explorations of Myth and Evolution* (Wallace), *Ecological Imperialism: the Biological Expansion of Europe, 900-1900* (Crosby), *The End of Evolution: A Journey in Search of Clues to the Third Mass Extinction Facing Planet Earth* (Ward), and *The Beak of the Finch: A Story of Evolution in Our Time* (Weiner).

A series of five seminars was based on students' presentations (once per student) of articles about topics of their individual choosing about conservation biology (primarily emphasized) and/or biogeography.

An early assignment was to compile prescribed biogeographic resumes of two species: one vascular plant and one vertebrate animal. There were two midterm exams, a midterm exercise (based on an article which featured cladistic systematics and other biogeographic concepts), and a final seminar to review the most prominent concepts covered in the program.

A major research assignment for each student was to review literature about a particular taxonomic group and/or a particular geographic region, from which to produce a written report about the group's or region's biogeography (historical and ecological) and, secondarily, conservation biology. The findings were also shared at the end of the quarter in poster sessions accompanied by group discussion of each poster.