

PROGRAM DESCRIPTION

EXPLORATIONS IN ECOLOGY

Group Contract Program, 8 or 12 units, Winter Quarter 1991
Faculty Sponsor - Peter B. Taylor, Ph.D.

The core part of this program (8 units) presented an introduction to ecological science, covered by assigned readings, written assignments, and meetings (twice each week) to review and discuss the material. The text for this part was Ecology: Individuals, Populations, and Communities (M. Begon, J.L. Harper, and C.R. Townsend, 1990), which covered ecological concepts and theory comprehensively at a level intended for advanced undergraduates and graduate students. Essentially the entire text (twenty-two of twenty-four chapters) was read, and the students were expected to write synopses of most of the chapters. Another part of the core included a seminar, meeting twice each week, to discuss assigned reading in the following books: The Klamath Knot (D.R. Wallace), Ice Time: Climate, Science, and Life On Earth (T. Levenson), Tropical Nature: Life and Death in the Rain Forest (A. Forsyth & K. Miyata), Arctic Dreams (B. Lopez), and The Ages of Gaia: A Biography of the Earth (J. Lovelock). These books variously reinforced and supplemented the ecological concepts covered by the primary text. A brief written response to each book, except Arctic Dreams, was assigned.

The remainder of the program (4 units) included a seminar on conservation biology and ecological field studies. For the seminar, meeting weekly, each student presented two articles--of her/his own choosing from scientific and environmental journals--about topics in conservation biology. The field studies featured ecological observations and surveys of local forest and intertidal habitats, and of waterbirds intended to illustrate ecological concepts covered theoretically by the text and other activities of the program. Another purpose was to introduce methods for writing scientifically rigorous fieldnotes, the use of fieldguides (and a key) to identify local plants and animals, and methods for the quantitative survey of vegetation. The written assignments were variously fieldnotes and reports for the weekly exercises.