

Associated Colleges of the South Environmental Initiative
Curriculum Development Grant Proposal 2005-2006

John S. Knox, Professor of Biology
James P. Warren, Professor of English
Washington and Lee University
Spring 2006

Introduction

We propose to create a new interdisciplinary course, “Island Biogeography and Species Conservation: Science and Literature,” for Environmental Studies at Washington and Lee University, beginning with the six-week spring term in 2006. In this first iteration, the course will be open for underclassmen in University Scholars, an interdisciplinary program that selects bright freshmen and sophomores each January for special seminars. In addition, we will open the course to students in the Environmental Studies certificate program. The course will combine field botany, island biogeography, ecology, history and theory of evolution, humanistic geography, environmental literature, and environmental ethics. Despite the number of environmental focuses, the course will be a unified and coherent addition to the Environmental Studies concentration. Neither of us has ever received a grant from the CFD Alliance. Thus the proposal fulfills five of the six specific criteria for a Curriculum Development Grant. In addition, the course could easily be shifted abroad, to the Hawaiian Islands, where some of the clearest and best-studied examples of island biogeography, speciation and extinction exist, or to an international setting such as the Galapagos Islands. We hope to repeat the course more than once, in any event.

Project Description

The course will comprise 7 credits, running from midterm of our Winter semester 2006 to the end of our six-week Spring term 2006. In the Winter term, we will conduct a 1-credit reading course, focusing on David Quammen’s *Song of the Dodo: Island Biogeography in an Age of Extinctions* (1996). Quammen’s book is an excellent piece of science journalism. It mixes personal narrative, history of science, cultural anthropology, and ecology to account for species distributions, associations, survivals and extinctions. The book places scientific knowledge in the context of global environmental stewardship. It delivers basic scientific knowledge concerning island biogeography in an accessible literary form.

The six-week Spring course will be for double credit, and this means that the course will meet officially 24 hours per week. In practice, we expect to spend the whole day together. The focus in the spring will be field botany, but we plan to use the focus on fieldwork to develop island biogeography as an approach to scientific

and literary concepts of place. Specifically, Professor Knox conducts research on the endangered plant species *Helenium virginicum* at the Big Levels sinkhole ponds in Augusta County, Virginia. The environment of the ponds in effect creates island conditions, so the students will see how theories of island biogeography can be applied in the field. Nearby, in Bath County, shale barrens create another type of island environment, with rare plant species that are most closely akin to the prairie ecosystems of the Midwest. These two places abound in other plant species, and the fieldwork will focus on the taxonomy of vascular plants; the organization of plants into family, genus, and species; the use of a scientific manual of vascular plants to identify unknown plants by family, genus, and species; the ecological and historical contexts responsible for speciation and extinction.

In addition to the work in field botany, we plan to examine humanistic geography and literature as ways of developing a sense of place. Readings will include Barry Lopez's *Arctic Dreams: Imagination and Desire in a Northern Landscape* (1986), which explores the geography of the Arctic through examining the intersections of natural and cultural history. Two other books we hope to use are Jonathan Weiner's *The Beak of the Finch: A Story of Evolution in Our Time* (1994) and Robin Wall Kimmerer's *Gathering Moss: A Natural and Cultural History of Mosses* (2003). These books cross the boundaries of academic disciplines and literary genres. Terms like "science writing," "nature writing," and "natural history" are not fixed epistemological categories but convenient phrases. We hope to teach our students a variety of ways of knowing a place.

The students will also explore a number of ways of writing. We will create an herbarium and a journal as part of the course, and we will require both objective tests and creative papers. As in the reading, the writing will cross genres and disciplines.

Grant Budget

We request \$3000, to be allocated as follows:

- \$1500 to support Robin Wall Kimmerer as guest lecturer in May 2006. Professor Kimmerer is definitely interested in visiting our campus. She is a generous, clear intellectual presence. (Prof. Warren has met her, heard her speak twice, and discussed the possibility of a visit.) We hope to have her for several days as our guest in the daily class, and we would ask her to present a public lecture as well. In addition, we will seek funding from our Environmental Studies Program to sponsor a talk at the Environmental Studies Luncheon Colloquium Series. If our grant is approved, we will immediately invite Professor Kimmerer to campus.
- \$1500 to support the collaboration and course development of the two principals. We are committed to teaching the course, and this sum will be an incentive to meet weekly, break bread together, and develop the syllabus and

lesson plans in detail. At this point, the course is an intriguing idea. Our goal is to create a clear plan for how we will integrate the intellectual content and how we will share the teaching responsibilities.

Evaluation and Dissemination

We will evaluate the success of the project between the two of us and with our students. If the course is successful, we will know it. We hope to be able to post the syllabus, photographs of fieldwork, student writing, and the final report on the CFD website.

John S. Knox

James P. Warren