

Project Year

2001

Project Team

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Project Title

GIS and Ecology

Audience

Approximately 40 students who enroll in the *GIS and Ecology* course each year.

Pedagogical Issue

Ecology requires the ability to understand and analyze spatial data. Few sciences cover spatial scales as ecology does—from minute, microscopic mycorrhizal communities to enormous continental species distributions. Recent work in ecology suggests that understanding the concept of scale is vitally important, because the mechanisms driving systems often change with changes in scale.

Solution

Geographic information systems software (GIS) is one of the most powerful emerging technologies today for the organization and analysis of spatial data. By integrating GIS tools into existing course structures, students will be exposed to advanced spatial ecological concepts and concrete GIS manipulations. Through this project, the team proposes to develop a variety of resources: a set of general, web-based introductory lessons, designed for a wider audience; ecology-specific modules, intended to introduce teaching GIS and spatial ecology; and, finally, a map, compiled and published by students, of vegetation on the Homewood campus.

Technologies Used

Web Design, Programming – MS Access, ArcView (GIS)