Mary Beth Kolozsvary

EDDIE Module

Module name:

Assessing the Risk of Invasive Species Using Community Science Data

Expected dates of Implementation

Two lab sections: Mon., 3/6- and Wed., 3/8-

Course/Course Format:

Number and length of sessions per week (e.g. Three 50 minute lecture sessions and one 3-hour lab per week)

- ENVA 450 Conservation Biology
- Two lecture sessions per week (1 hour each); one lab session per week (4 hours)

Course Description (From course catalog)

Modern conservation biology employs an integrative approach to biodiversity protection and management using principles and experiences from ecology, natural resource management, and the social sciences. Topics include biological diversity, valuation systems, adaptation and extinction, minimum viable populations, management of invasive and endangered species, and the design of nature preserves. Lab and field problem-solving exercises focus on population size, habitat fragmentation, and restoration ecology. Prerequisites: ENVA 250 or permission of the instructor. Lab fee. Prerequisites: ENVA 250 or BIOL 225. Attribute: (ATTR: ARTS).

Course Context: Describe student and/or course level, e.g., lower or upper division, major course, etc. (e.g. "An introductory course for non-majors")

All students are Environmental Studies and Sciences majors. This is an upper-level course. It is required for all B.S. Environmental Science (Conservation Science) track. It is taken to fulfill and upper-level elective for B.A. Environmental Studies and B.S. Environmental Science (Earth Systems) students.

Course Goals and Topics (If available, extended version of learning goals and topics covered)

Students successfully completing ENVA 450 should be able to:

1. Understand the need for interdisciplinary perspectives to develop effective and equitable solutions to the biodiversity crisis;

2. Identify and describe the major human threats to biological diversity and approaches to minimizing biodiversity loss;
3. Demonstrate the ability to interpret and analyze technical data to prioritize conservation actions from local, regional, to international scales;
4. Develop practical approaches to promote biodiversity conservation and communicate technical conservation ideas and needs to various audiences.

MODULES	**TOPICS**
1	Introduction to Conservation Biology
2	Defining Biodiversity
3	Value of Biodiversity
4	What is Biodiversity and Why is it Important – recap and review
5	Threats to Biodiversity I
6	Threats to Biodiversity II
7	Risk of Extinction
8	Conserving Populations and Species
9	Majors Threats to Biological Diversity – recap and review
10	Ex Situ Efforts and Setting Priorities
11	Assessing Habitat Connectivity
12	Protection – Public and Private Lands
13	Conservation Opportunities, Review and Synthesis – setting priorities and on-the-ground action
	Final Exam

Learning objectives

What learning objective(s) (content) are you planning to address in your course using the selected module materials?

- Topic: Threats to Biodiversity I
- Learning goals 2 and 3.

Quantitative learning objective

Working with data learning objective

Briefly describe the pedagogical techniques/strategies you plan to use to facilitate the module and reinforce the learning objectives you identified above.

Are you planning on making any adaptations to the materials? If yes, please describe them here. If no, please indicate why. (*This will be important for the end when you make your final product, you will need to distinguish the modifications you made relative to the original*)

Do you think you will need to incorporate any supplemental materials with this module? If yes, please either describe what you are planning or include any materials you have already found.

What assessments are you planning on using to measure student progress? If possible, describe, attach, or provide a link here.

Reflection Questions for after your Implementation

(Think about what you would like to read about this activity if you came back to it in 2 years)
Suggestions for this section (not all required, and extras always welcome):

Introductory Statement: The summary should start with one line that captures the context in which the module was used. This should be followed by 2-5 sentences that highlight what was particularly interesting about this particular implementation. This could include the setting, schedule, student group, an exceptional success or unusual adaptation of materials

Example: *A Success Story in Building Student Engagement*

My course is introductory biology with an environmental emphasis, usually taught with a fairly traditional lecture, textbook, lab, and exam format. In recent years I've been gradually turning over content to allow students to take a more active role in acquiring the material (e.g., through acting out concepts or performing exercises integrated with lectures). This module represents the next phase of that transition—integrating recent data in an engaging, active way. My students were excited about the content and were able to immerse themselves in the data. By the end of the mini-lesson, they were able to examine the topics at a sophisticated level and ask more advanced questions relevant to current research.

How did it go? (What went well and why? What adjustments did you need make in real time and why?)

Student Outcomes (What did students take away? Where did students struggle the most?)

Future Use (Would you do this activity again? What suggestions do you have? What would you change?)