

Invasion Ecology

SPRING SEMESTER 2007

BIO 8990: Special Topics in Biological Sciences

****Time & Location TBA****

**contact Dr. Gary Ervin prior to beginning of Fall classes:
gervin@biology.msstate.edu or 325-1203**

This course will follow a recent text, *Species Invasions: Insights into Ecology, Evolution, and Biogeography*.

Each student will lead the discussion of one or more chapters from the text, augmented with information from primary literature and other sources.

This will be a three-credit-hour course with one 2.5-h meeting per week.

Tentative topics to be covered

Ecology

Species diversity, ecosystem function, and invasion
Infectious diseases
Ecosystem processes

Evolution

Genetic bottlenecks in invasive species
Niche conservatism
Invasive species as tools to study evolution

Biogeography

Community composition and homogenization
Rates of population spread and range expansion
Mechanisms that limit diversity

