



Floracliff Field Studies

Aquatic Biodiversity, September 7-8, 2012

Instructors: Michael Compton, Kentucky State Nature Preserves Commission
Ryan Evans, Kentucky Division of Water

Kentucky Aquatic Biodiversity- Aquatic Macroinvertebrates and Fishes

This workshop will focus on the diverse groups of aquatic macroinvertebrates and fish in Kentucky. An introduction of Kentucky's Aquatic Natural History, with a focus on the species within the Palisades and Bluegrass Region of the state will be presented. Field trips to local streams will be made. Students will spend time in-stream and in the laboratory, collecting, identifying, and discussing the ecology, behavior, habitats, and conservation of aquatic organisms. Course material will be provided but all participants should have the proper clothing and footwear to efficiently and safely navigate within the stream channel. Students should plan to get wet and have fun and experience Kentucky's rich Aquatic Biodiversity!

Michael currently is the Aquatic Zoologist for the Kentucky State Nature Preserves Commission. He has 20 years of experience in the collection, identification and conservation of Kentucky's fish, crayfish, mussels, and insects. Ryan has worked with invertebrates in positions in Georgia, Pennsylvania, and Kentucky. His speciality is with freshwater mollusks (freshwater mussels and snails). He is employed as an aquatic biologist with The Kentucky Department of Environmental Protection – Division of Water.

Day 1:

8:00 – 11:30: Lectures/Presentations
Introductions
Kentucky Natural History
Introduction
Regions
Floracliff (Palisades and Bluegrass)
Aquatic Biodiversity
Faunal Groups (mussels, insects, crayfishes, fishes, etc...)
Stream Ecology
Introduction
Water Chemistry

11:30 - 12:30: Lunch (on-site)

12:30 – 5:30: Field Excursion – Elk Lick Creek
2 stations (Invertebrates and Fish) with 2 hours spent at each station.
Collection techniques and gear
Organisms encountered
Microhabitats

Day 2:

8:00 – 12:00: Field Excursion – regional stream
Organisms encountered
Microhabitats

12:00 – 1:00: Lunch

1:00 – 5:00: Laboratory
Organism Identification (microscopes)
Data Analysis - Stream Comparison
Species Richness, sensitive species, tolerant species, trophic groups

Closing comments and final questions