

Geography 535, Spring 2012

Pollen Analysis at Slack Lake, Michigan



Lake and wetland sediments commonly preserve pollen grains and other organic microfossils such as fern spores, conifer stomata, and charcoal particles. Geography 535 in Spring 2012 will focus on these microfossils as proxy indicators of past vegetation, climate, fire regimes, and human impacts. Course participants will work together to learn pollen analysis while studying the microfossil record in a sediment core from Slack Lake, Michigan, that covers the last ca. 14,000 years. The goal is to develop, as part of the 535 course, a dataset that can become a presentation at a professional meeting and ultimately a publication, led by and involving students in the class. This is a special opportunity made possible by Ph.D. student Joanne Ballard and her former advisor at the University of Cincinnati, Tom Lowell, who recovered the Slack Lake sediment core for a study of macrofossil charcoal. Microfossils in the core have not been previously studied. Based on other work in the region, we should see a strong shift from conifer-dominated forest in the late Glacial to a forest with greater hardwood representation in the Holocene. We may also see evidence of the Younger Dryas event, and of both early and late Holocene human impacts on the landscape surrounding Slack Lake, which includes several archaeological sites.

Geography 535 will meet Wednesdays from 2:30–5:00 and at other times. Please contact Sally Horn if you would like more information (shorn@utk.edu).