

# Paleoecological Analysis

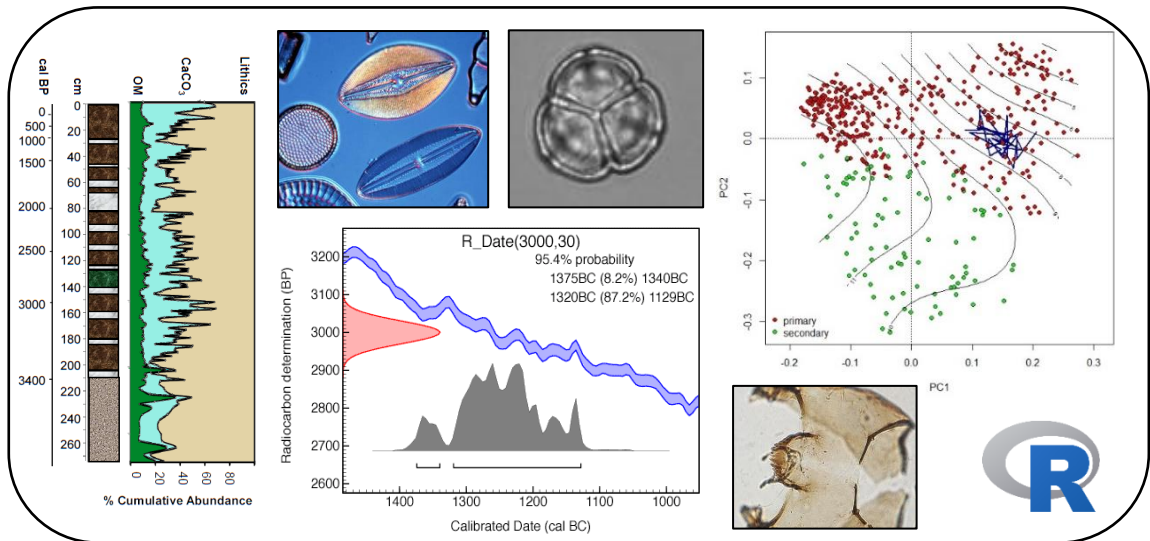
Professor Melissa Chipman

Spring 2019 sections:

Undergraduate: EAR 400, section M007

Graduate: EAR 600, section M007

Meeting times/location: MW 2:15-3:35pm, HGL 219



What is paleoecology? How are paleoecological data used to answer questions about ecosystem response to humans and climate change? This course will explore various themes and methods in paleoecological research, including an introduction to age-depth modelling, plotting stratigraphic data, and using multivariate techniques. In addition, we will critically examine different methods for reconstructing past climate, vegetation, and ecosystem change. Example datasets will include diatom, pollen, charcoal, and insect records from lake sediments. *You can also bring your own data!*

**Course structure:** We will read and discuss literature on various topics (no textbook required), explore relevant analytical techniques, and practice manipulating and interpreting paleoecological datasets.

**Requirements:** This course is suitable for students with backgrounds in Geology, Ecology, Environmental Science, and/or Geography. Personal laptops are required to run R and other small programs throughout the semester. *Experience with R is useful, but not required. You will not be graded on your ability to write code. The goal of this course is to learn to think critically about different types of paleodata and add new skills to your analytical toolbox.*