



# Summer Course: Assimilating Long Term Data into Ecosystem Models

August 12-18, 2012



## Integrating paleoecological data collection, Bayesian statistical analysis, and ecosystem modelling

Estimating the impact of global change on terrestrial ecosystems requires integrating long-term data into ecosystem models. This course provides 20 graduate students and researchers with intensive training to estimate the signal and uncertainty in historical and paleoecological data and to assimilate these into the current suite of terrestrial ecosystem models.

**Participating Faculty:** Mike Dietze (University of Illinois), Steve Jackson (University of Wyoming), Jason McLachlan (University of Notre Dame), Chris Paciorek (UC Berkeley), Jack Williams (University of Wisconsin)

**Location:** University of Notre Dame Environmental Research Center, Land O' Lakes, WI

**Fees:** Course fees, room, and board funded through a NSF grant. Participant must provide own means of transportation to Chicago, Illinois, or Madison, Wisconsin. There are a limited number of travel grants available to applicants from NEON, Inc., member institutions (see [www.neoninc.org/content/paleon-data-assimilation-course](http://www.neoninc.org/content/paleon-data-assimilation-course)).

Hands-on curriculum covers the data/model process from design through data collection, analysis, and back to design. Activities include:

- Collecting historical and paleoecological data (e.g., tree rings, pollen, charcoal, macrofossils, and historical surveys)
- Bayesian data analysis addressing uncertainty, calibration of proxy data, and integration of diverse historical data
- Integrating data-derived ecological parameters into ecosystem models using formal Bayesian data assimilation

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**To Apply:** Send a CV and a statement detailing your interest in the course and how you anticipate it advancing your research. Arrange to have your major supervisor send a letter supporting your application.

**Apply to:** Jason McLachlan at [jmclachl@nd.edu](mailto:jmclachl@nd.edu)

**Deadline:** March 30, 2012. Selections announced by April 15, 2012.

