**Final Project**

Final projects and are expected to answer a specific question or set of questions in the field of terrestrial ecosystem ecology with original analysis of existing observational data that are readily available, or of new data generated from an original computer simulation.

**Project Proposal**

The proposal should include a preliminary title and between 250 and 350 words (max 350 words) of text in an abstract form that describes the intended topic of study, possibly a question to be addressed (if identified), the methods of analysis, and anticipated findings (not less two).

Theme: Leaf-Scale Physiology Across Species and Within the Growing Season

Leaves exchange CO2 and H2O vapor with the air, and the rate of this exchange varies with light, temperature, humidity, carbon dioxide concentration outside the leaf, and other factors. Stomatal conductance influences the exchange rate as well, and restrict water loss. Leaf-level exchanges for individual species can be scaled to the full canopy scale (across many species) with knowledge of leaf area by species. This set of projects analyzes leaf-level gas exchange and leaf area data to examine photosynthesis response to environmental controls and to estimate canopy-scale rates of primary productivity.

Datafile(s): LEAF RESPONSES.xls

a) Light response of photosynthesis

b) Carbon dioxide response of photosynthesis

c) Photosynthesis – stomatal conductance relationship, and Water Use Efficiency

d) Temperature or Humidity response of photosynthesis ? (might not be enough variation)