I. Goal:

- Use carbon flux data from the Ameriflux database to support a simple hypothesis

II. Objectives:

- Develop a simple hypothesis regarding ecosystem carbon fluxes and use Ameriflux data to support or contradict this statement

III. References:

- CZO National Database, <criticalzone.org/national/data/>
- Ameriflux network, Old: ameriflux.ornl.gov/
- Ameriflux network, New: ameriflux.lbl.gov/SitePages/Home.aspx

IV. Preparation:

- Break into small groups and **list some factors that control growth** in the following biomes. Then develop some simple hypotheses relating the CO2 flux to some of these driving factors. It might be useful to have the students look at the carbon Flux Discovery graph sets again.

1. Rockies Ponderosa Pine Forest

2. High Plains Grassland

3. Appalachian Deciduous Forest

4. Canadian Pine Forest

V. Homework II – Develop a simple hypothesis regarding site-to-site or season-to-season differences in data from the Ameriflux or CZLO data network. Clearly state your hypothesis below and provide adequate tabular or graphical data either supporting or contradicting your hypothesis. Example questions might range from timing issues to broader ecosystem patterns. Complete these graphs and discussion questions and bring a copy to your next class. Make sure your name is on your papers.

5. Hypothesis

6. Data: What data did you consider?

7. Summary of Results – What does your data show regarding your hypothesis?