

FISH 503 Advanced Limnology (University of Idaho, Moscow)

Coring and Paleolimnology Module Lab Prep

Objectives/ goals: Provide participants with hands-on opportunity to use various coring devices (gravity, freeze, long, and box corer), handle cores in the field and laboratory, develop small coring project. Understand handling of cored material, undertake data analysis.

Outcomes: Participants will develop an understanding of different coring devices, experience the development of a small sampling program, become proficient at using cores in the field, extracting and handling cores, undertake basic analyses.

During this field lab we will sample Spring Valley Reservoir with several of the coring devices so that you get hands on experience using them. Everyone should make sure they get to use and see the operation of all equipment on hand - the group is a little larger than in past years, so make sure you get to see all of the equipment.

Be sure to be safe on the ice - we will discuss safety issues before we head out.

Your tasks:

- i) Look over and be familiar with the various coring devices available in the UI limnology lab
- ii) Decide if there is a question or hypothesis you can address during the afternoon lab session.

E.g., Sediment accumulation in different parts of the reservoir?
Comparison of corers - diameters / resolution ease of use?
Core reduction, etc.

Decide on what will be done - apart from the demonstrations. Decide on how you will sample and in what order - this will be somewhat limited by the freeze coring - I want to get it done for sure and we also need to be a little careful about how many holes and at what spacing we drill them - so we don't end up getting wet.

Decide on how you will record data so that you can track the equipment with which it was taken, the core number and the depth interval you are examining. Settle on a standard format with everyone - go as far as preparing data sheets.

Save some of the sediment from each core for examination under the microscope on Friday morning. Do not dry or burn all of it on Thursday aft.

We have access to the balance and muffle furnace and can dry and ash things overnight. If we use small quantities - they will dry adequately. If you let me know early enough I can have things ready before we leave for the field.