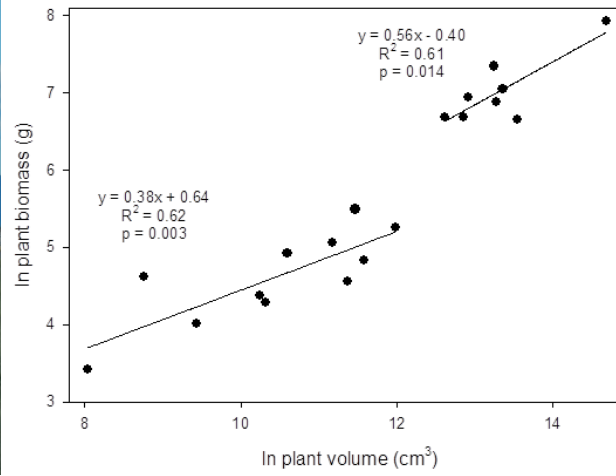


Brief Overview of Blue Carbon Sampling

Plant Carbon Stocks

- Aboveground biomass
 - Destructive sampling
 - Clip all biomass, dry, and weigh
 - Non-destructive sampling
 - Measure plants and use an allometric equation to calculate biomass



Plant Carbon Stocks

- Belowground biomass
 - Destructive sampling
 - Take a core
 - Rinse dirt and debris off over sieve to get roots and rhizomes
 - Dry and weigh
 - Non-destructive sampling
 - Use an allometric equation or ratio to calculate biomass



Soil Stocks

- Collect core
- Measure length
- Collect subsamples of known size (ie, 5 cm long) at certain intervals
 - For example, sample every 5 cm in top 30 cm, in the middle of 30-50 cm, and then middle of every subsequent 50 cm
- Continue collecting cores from same hole until refusal or you reach parent material (clay, sand, etc)

Types of coring devices



Gouge auger



Russian peat corer







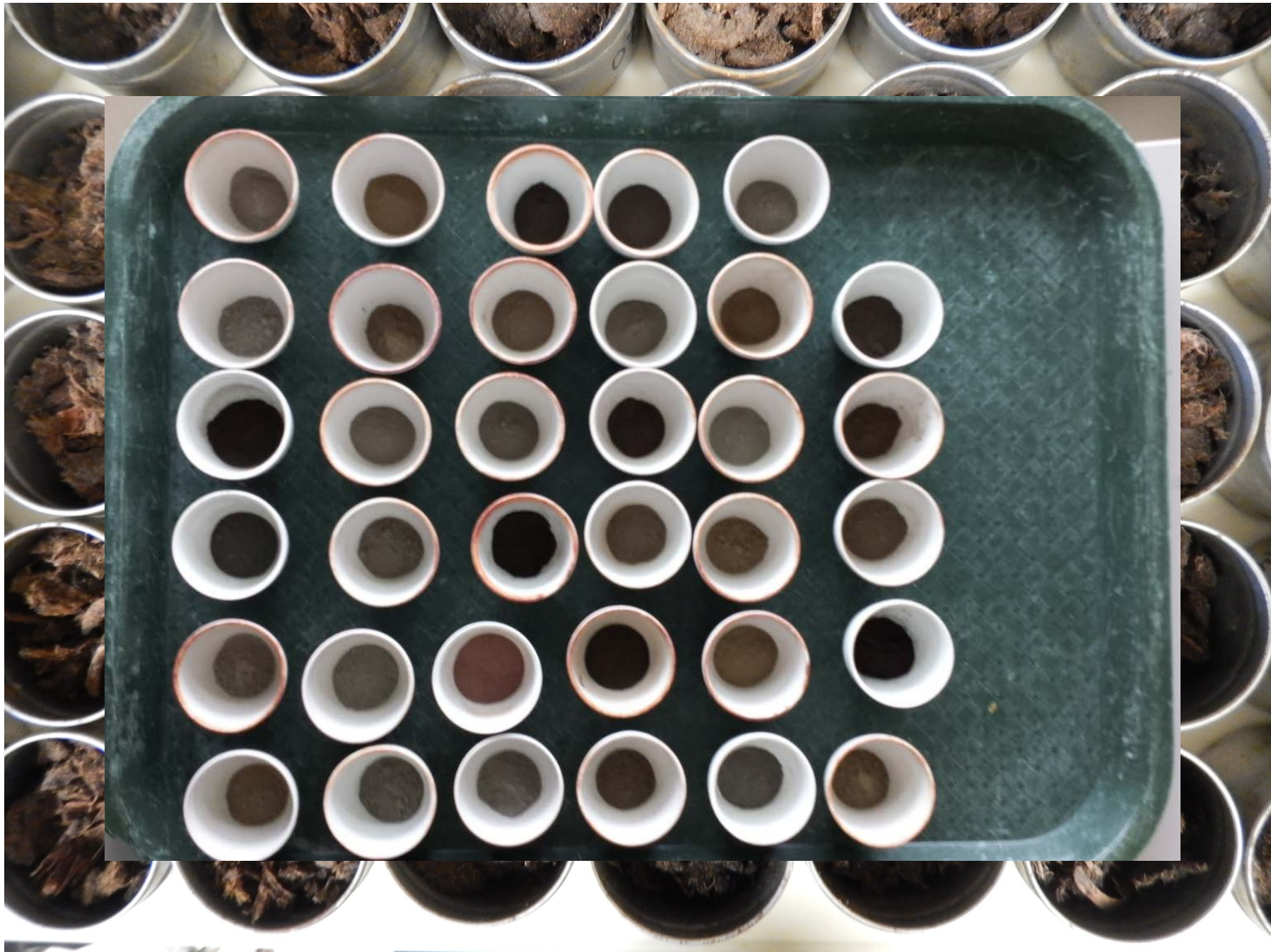


Laboratory Processing

- Dry sample and weigh for bulk density
- Grind sample
- Take subsample for 'loss on ignition'(LOI) value
 - Burn at 500°C for 6 hours
- Analyze subsample for carbon in an elemental analyzer

or

- Use equation relating percent organic carbon with LOI





Anchor River Estuary

AR Salt Marsh Core



Continuous Water Sampling





Beluga Slough
Salt Marsh

Beluga Salt Marsh Core





China Poot

China Poot Salt Marsh Core



Dennis Whigham and Lisa Shile of SERC

