Fire Disturbance Working Group

Cheers
Fire Disturbance Working Group

- Caught up on project developments & remaining goals
- Ideas for some new synergies and stakeholder engagement (Canadian management agencies)
- Updates from new participants:
  - Rocha nutrient additions
  - Potter fire effects on streams/rivers/fisheries, AVIRIS flight lines over accessible chronosequence
  - Michaelides InSAR thaw depth fire chronosequence in YKD
  - Jandt data for ARF
Combustion Synthesis

- ~1500 total plots (burned & unburned)
- ~700 have depth of burn
- ~500 have combustion (aboveground & belowground, including SK)
- Group has extracted wide range of geospatial predictors
- Xanthe Walker developing site-level model using SEMs:
  - Depth of burn
  - Proportional SOL loss
  - Combustion (below/aboveground/total)
Combustion Synthesis

Questions
• Drivers?
• Regional patterns?
• Soil properties <-> DoB?
• Most vulnerable landscapes?

Remaining issues
• Domain-wide vs. region
• Spatial autocorrelation
• Study-specific methods
• Model formulation

Future
• Paper
• Idealized soil profiles
• Geospatial model

Marginal $R^2 = 0.47$, Conditional $R^2 = 0.57$

Ecoregion and Project as random effects
New Directions

- Synthesis focused on tundra (Liza Jenkins)
- Model benchmarking
- Vulnerability assessment
- Reorganization of working groups