Method outline: for chapter 1

* Overview
* goal
* Sites
  + Where?
  + How decided
* Sampling design
* Processing
* Allometric equations
* Environmental variables
* Statistics
* Goal

~~To forecast carbon in the boreal forests~~

~~To inform disturbance management – is current management succeeding in its goals to increase carbon storage and how could it be improved~~

* ~~Sites: ~40 in 2022, 52 in 2023~~

~~Throughout the boreal forests of Gros Morne and Terra Nova National Parks, Newfoundland~~

~~Chosen for distribution across Disturbance, Moose Densities, Accessibility, and even coverage of environmental variables~~

* ~~Checked distribution of variables for sites sample in 2022 to distribution over whole of each park~~
  + ~~Most environmental variables well covered – needed some high elevation~~
* ~~Plot design: at each location~~

~~4 subplots – consisting of a 2x5m transect, a 3x3m quadrat and four 0.5 x 0.5 m quadrats~~

~~What measured in each~~

* ~~2x5: trees, shrubs~~
* ~~3x3: deadwood~~
* ~~0.5x0.5: ground vegetation (all 4), litter (SW), soil (SW & NW)~~
* ~~Sampling: measured above and below ground carbon pools \*write down all info needed to calculate biomass of each thing measured~~

~~- vegetation: dimensions~~

- trees: ~~above 3m – height & DBH, between 30cm & 3m - basal diameter,~~ below ~~30cm – height and percent cover (calculated from orthogonal diameters)~~

- shrubs: ~~between 30cm & 3m – height and area (calculated from orthogonal diameters or basal diameter,~~ ~~below 30cm - height and percent cover (calculated from orthogonal diameters)~~

- ~~ground vegetation: percent cover~~

- ~~deadwood: dimensions~~

~~- orthogonal diameter and length~~

~~- class of deadwood~~

~~- type of wood (soft or hard)~~

- ~~litter: percent cover + samples taken~~

- soil: ~~depth + samples taken~~

* ~~Processing litter and soil:~~

~~Dried and ground organic soil:~~

* ~~Dried until constant weight~~
* ~~Removed rocks~~
* ~~Ground sample~~
* ~~Sent subsample to Guelph to get %C \*how~~

~~Dried leaf litter:~~

* ~~Dried until constant weight~~

* ~~Allometric equations: to convert measurements to biomass~~
* ~~These come from the literature, calculations are made using the measurements taken in the field~~

~~then to carbon~~

* ~~For vegetation etc: 50% carbon~~
* ~~For soil: Can calculate amount of carbon in soil sample based on dry weight \* % carbon~~
* ~~For litter: % based on disturbance type and park~~
  + ~~Calculated from 2022 data~~

~~Extrapolated to 9m2 (ie subplot)~~

* ~~Environmental variables:~~
* ~~Where did I search? And what resources did I get them from?~~
* ~~Requirements:~~
  + ~~Hypothesized effect on carbon storage or mediate an effect of disturbance~~
  + ~~Spatial window included both national parks~~
  + ~~Similar resolution: 25 – 30 m resolution~~
* ~~Processing:~~
  + ~~Warp: to make same projection and resolution~~
    - ~~CRS: EPSG: 26921 – NAD83/UTM zone 21N~~
    - ~~Resampling method: nearest neighbour because some data categorical (LCT, FAC, FSC)~~
    - ~~Resolution: 30m~~
    - ~~Georeferenced extent: calculated from minimum bounding rectangle of park polygons and all sites (because one site was outside extent of parks)~~
  + ~~Clip to park: using mask~~
    - ~~GM\_FRI\_2010\_fix or TN\_polygon~~
    - ~~Keep resolution~~
* Statistics:

Generalized linear models?