Ennisbrook Rx Herbivory Monitoring Questions:

-How does sheep grazing affect understory vegetation height and cover in oak woodlands in a wildland-urban interface setting? The positive ‘effect’ desired is to reduce understory vegetation height, and break up vegetation continuity.

Measures:

-Line-intercept: area-weighted height, before and after grazing; cover; biomass (immediate pre- and post).

*Calculation strategy:*

*LINE-INTERCEPT:*

-Weighted average understory height: For each transect and date, account for total transect length assessed by subtracting “dist\_stop\_m” – “dist\_start\_m”. Calculate the % transect length of each vegetation record. Then, compute a weighted average of heights across the transect by multiplying % transect length \* ht of observation record. Include observations with 0 ht (e.g., bare substrate, litter).

-Pct Cover and Height: For each transect and veg type, sum % transect length (Cover), and take the average of height by cover class.

*QUADRATS for COVER*

*Observations about dataset upon completion of entry (9/21/2023)*

*i.*  Bare and litter tallied as separate ground cover material classes only for July. In May and June, “bare” was used basically for both, describing places where there wasn’t standing live grass.

*ii. do longitudinal trajectories of individual quadrats make sense to analyze, in addition to plot-scale averages? Plot-scale averages may wash out differences in cover variability across quadrats with very different start points; but averages or indicators of variability\* (e.g., sd in % cover) may be intriguing indices for measuring fuels continuity, or as an indicator of patchiness which can be a positive ecological attribute.*

NEXT STEPS: create clean version of data combining bare + litter columns for July for viz in R. Then in R, create % cover matrices w/mutate function.

Also, a research point: the idea of a cross-plot space for woodland understory, optimizing view from ‘fuels’ perspective and ecological perspective.

\*\**data input errata corrected\*\**

Line-intercept:

1. T07, 11.4-11.6 m. 11.4 input corrected.