Questions: Do grass influence…

Pool grasses, test with and without graminoids

Native vs exotic

Perennial vs exotic

All statistical analyses were performed using R Version 4.0.0 (cite) and are available in reproducible documents at <http://jennabraun.github.io/many_analysts_jb/index.html>.

To test for evidence that grasses influences seedling recruitment in ecs, we fit generalized linear mixed-models (GLMM) using negative binomial error distributions to account for overdispersion detected in the data. The number of seedlings within a quadrat was using as a response variable, and each stage of development – less than 0.5 m, between 0.5 m and 2 m and greater than 2 m.

We included the property as a random effect within the models to account for…

Resource availability mediates the outcome of plant-plant interactions and so we included annual precipitation as an interaction… Further, our exploratory analyses indicated property-level differences in seedling density, therefore we included precipitation….

Results

We completed a total of 351 surveys over 3 seasons at x properties. Within a quadrat, small - (< 0.5 m) and medium-sized (between 0.5 m and 2 m) were significantly correlated (Pearsons: 0.27, p < 0.001). There was no relationship between large-sized seedlings and small seedlings (Pearsons: 0.04, p = 0.471) or large-sized and medium seedlings (Pearson’s: 0.007, p = 0.902).

There were no differences between seasons in the number of small or medium-sized seedlings, but there was a differences in large-sized.

The properties vary in annual precipitation.