Working title:
Do global patterns in herbivory variability replicate within clades?

Lead:
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Co-leaders:
HerbVar Steering Committee

Abstract:
We have shown that at across angiosperms and at a global scale, herbivory variability increases with latitude, decreases with plant size, and is phylogenetically structured.

It is however an open question whether these patterns hold at shallower phylogenetic scales and their corresponding geographic ranges. Here, we address whether such patterns (i.e., herbivory variability increases with latitude, decreases with plant size, and is phylogenetically structured) hold within some of the clades for which we have denser sampling, namely Asteraceae (n =153), Plantaginaceae (n =92), Plantago (n=92). We aim to leverage additional knowledge on the biology of these groups that is already available, such as phylogenies, diversification processes, knowledge on their life histories, interactions, and other plant attributes.

Data:
Core HV dataset, combining phase 1 and phase 2

Response variables:
Herbivory variability (Gini)
Average herbivory
Variability in damage within plants

Predictor variables:
Latitude
Plant size
Phylogeny
Life history, diversification rates and plant attributes

Authorship model / plan for recruiting additional authors:
All HV Site PIs will be included as co-authors because this is a core paper. Additional co-authors, specialists in Asteraceae or Plantaginaceae will be contacted. Virtual discussions and other mechanisms to exchange ideas and providing feedback will be used.

Timeline:
Data cleaning Dec 2024 - Jan 2025
Analyses March - May 2025
Writing Apr - Aug 2025
Submission by Oct 2025