**The effects of competition and soil moisture on variation in physiological traits in community assembly**

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Plant community assembly is the process by which abiotic conditions and competitive interactions influence the establishment and growth of plants within communities. Conflicting hypotheses predict an increased probability of species establishment as plant traits within the community converge to reduce competitive differences among species or diverge to limit negative interactions. Here we test these hypotheses using a manipulative approach, allowing the role of trait convergence and divergence from species differences or intraspecific differences to be isolated. Our current understanding of community assembly is mainly based on observational data, limiting our ability to draw causal relationships between community conditions and traits. Moreover, published studies predominately focus on interspecific variation, ignoring the potential for intraspecific variation to influence community patterns. We performed a transplant experiment to determine the effects of competition and soil moisture on intraspecific and interspecific variation of early-successional plants. Specific leaf area was significantly influenced by both competition and soil moisture; although, this trend was driven by a single species for which significant intraspecific variation was found. Analysis of the other traits revealed unique degrees of interaction between soil moisture and competition; however, these trends were generally due to species differences and not intraspecific variation. The effect of soil moisture and competition were therefore species- and trait-specific, likely reflecting interspecific differences in species growth strategies and plasticity. This research adds to our understanding of community assembly and functional ecology through a manipulative approach that allows us to further our understanding of the mechanisms underlying this process.