

Preregistration

# My preregistration for the LDP Reproducibility Project

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<b>Main question</b>	How does habitat elevation impact stem length, stem dry mass, leaf area, and leaf dry mass.
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<b>Dependent variable(s)</b>	Independent variable is elevation. Dependent variables are stem length, stem dry mass, leaf area, and leaf dry mass.
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<b>Hypotheses</b>	<p>H1: Plant stems and leaf area will be longer/larger at lower elevations as a result of increased water and humidity at lower elevations, thus allowing higher growth rates.</p> <p>H2: Dry mass of stems and leaves will be greater at lower elevations due to increased growth rates resulting from more access to water.</p>
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<b>Conditions</b>	Each plant sample is assigned to only 1 elevation level. In addition, each plant sample only has 1 measurement of stem length, stem dry mass, leaf area, and leaf dry mass.
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<b>Data collection</b>	I am using a pre-existing data set (hbr_maples) from lterdata which has 135 observations.
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<b>Inclusion criteria</b>	NA
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<b>Exclusion criteria</b>	NA
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<b>Quality checks</b>	NA
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<b>Confirmatory analyses</b>	I will use 4 different one way ANOVA's to test the relation of elevation to stem length, stem dry mass, leaf area, and leaf dry mass. If any results come back significant, i will complete post-hoc tests to determine what elevations are most significant.
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<b>Data type</b>	I have little knowledge of botany so i dont necessarily have any pre-existing biases towards the data.
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**References**

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