

Fire severity impact on understory vegetation species richness in the Araucaria-Nothofagus forest

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Dataset Descriptions

Plant richness and abundance was collected using quadrat sampling (1 x 1 m) inside of 55 circular plots (radius = 15 m). Each quadrant was 7 m away from the plot center towards each cardinal direction from where species richness and abundance were observed and recorded by a field researcher. The data set contains 1077 observations across 15 variables that includes categorical, continuous, and geospatial variables.

For the scope of analysis, we are particularly interested in the outcome of species richness due to burn severity. Thus, observations were grouped to produce the total number of unique species per quadrant. Geospatial and elevation data were kept for modeling fitting. The resulting dataset contains 220 observations across 8 usable variables. Please see the table below for more details.

Cleaned Dataset for Post-Wildfire Understory Composition

All data was collected via fieldwork conducted by P. Arroyo Vargas

Variable Name	Variable Definition	Variable Class (Y/X)	Units
n.plot	Plot designation	--	Discrete Count
cod.sev	Burn severity	Independent (X)	Nominal: H, L, UN
slope	Slope of plot	Independent (X)	Degrees (°)
aspect	Orientation aspect of plot	Independent (X)	Degrees (°)
elev.m	Elevation of plot	Independent (X)	Meters (M)
species	Count of unique species found in each quadrant	Dependent (Y)	Discrete Count
origin	Classification if species is native or not	Independent (X)	Nominal: Native, Exotic, NA
cov.50mean	Mean coverage at 50 cm from the ground in each quadrant	Dependent (Y)	Percentage (%)
cov.140mean	Mean coverage at 140 cm from the ground in each quadrant	Dependent (Y)	Percentage (%)