**Microbiomes across a climate gradient**

**Introduction**

**Overarching question is how microbiomes function in terms of litter decomposition ?**

How is composition shaped ?

Why do we turn to a climate gradient and conduct (reciprocal) transplantations ?

A follow-up question around utilizing a gradient is why not litter type was also manipulated ?

It is noteworthy that there are cases like composition being similar but functioning differently. This points to trait-based quantification of community that can tell real differences between communities in terms of functioning.

Hypothesis:

**Methods**

**Litter parameterization**

Desert: <https://ameriflux.lbl.gov/sites/siteinfo/US-SCd>

Scrubland: <https://ameriflux.lbl.gov/sites/siteinfo/US-SCc>

Grassland: litter (*Avena barbata and A. fatua*)

<https://ameriflux.lbl.gov/sites/siteinfo/US-SCg>

Pine-oak: fluxnet info.: https://ameriflux.lbl.gov/sites/siteinfo/US-SCf

Subalpine:

**Results**