

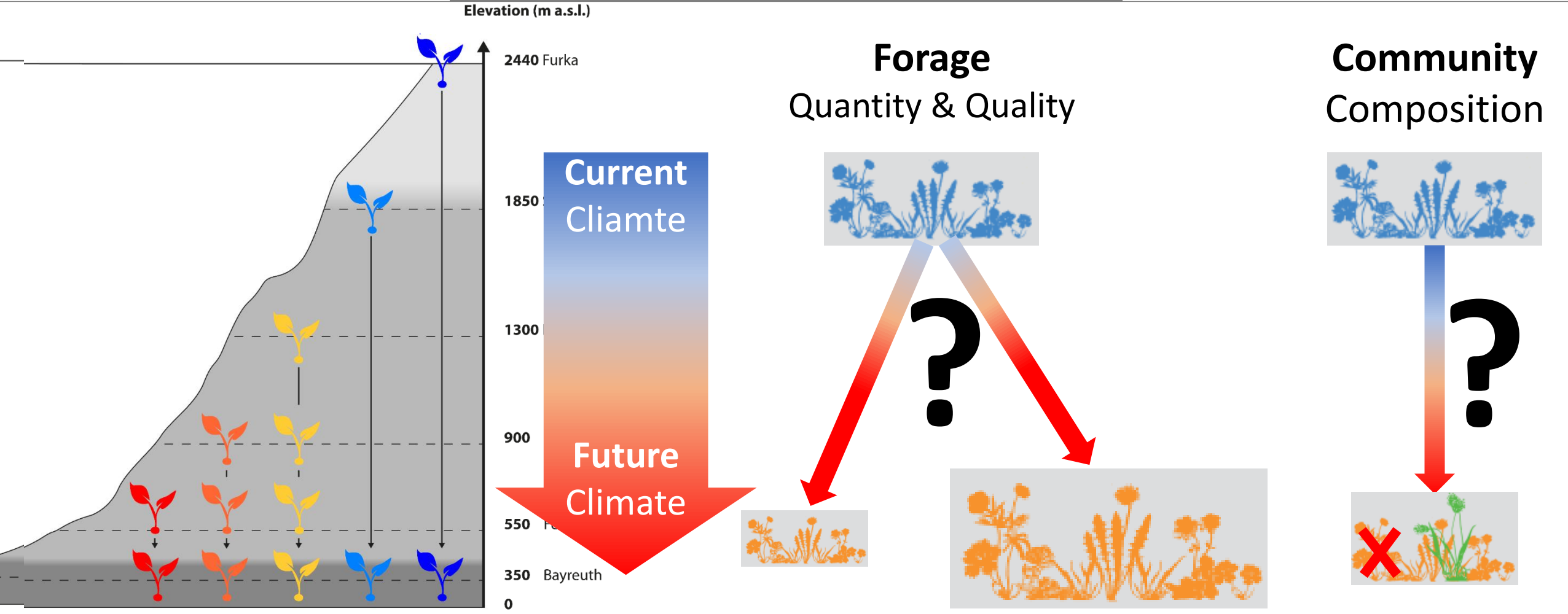
# SUSALPS highlights:

## Climate change and management effects on soil functions of alpine/pre-alpine grasslands

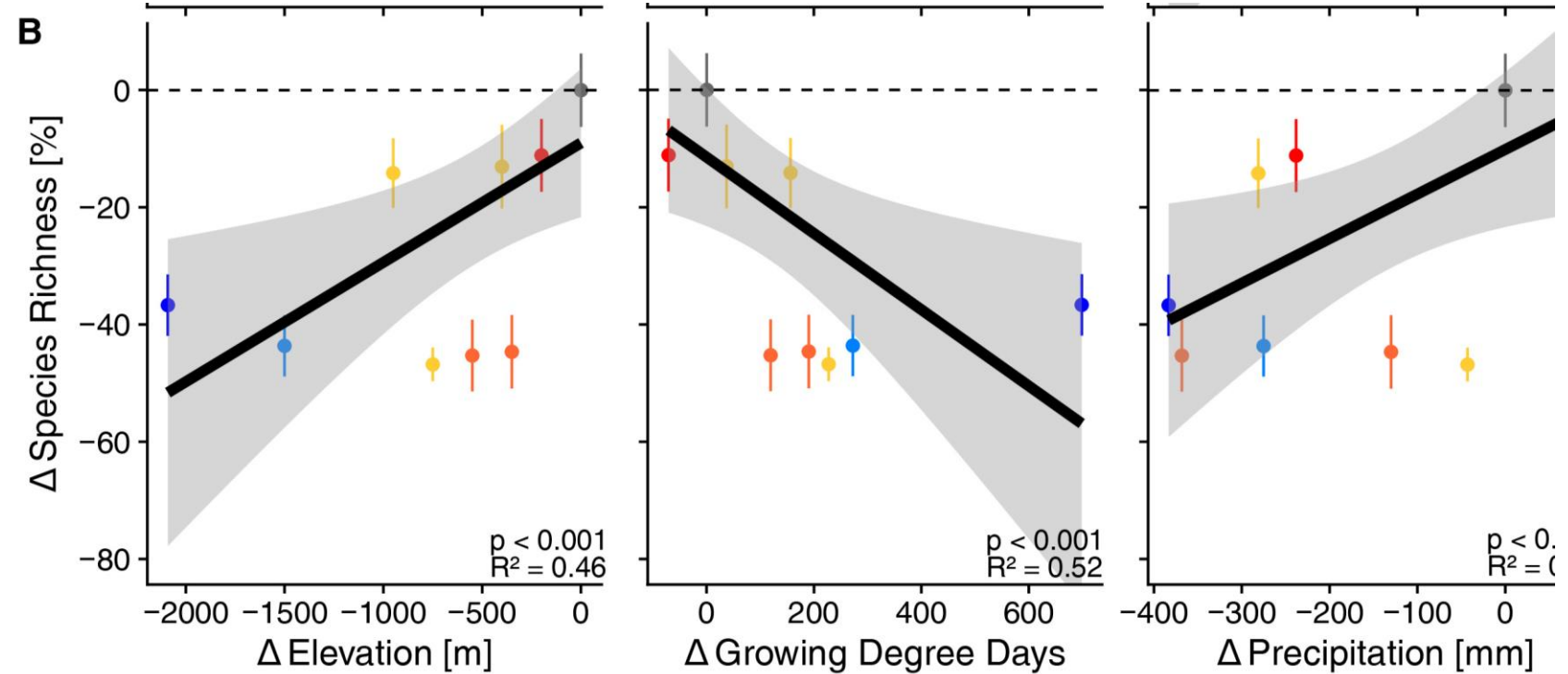
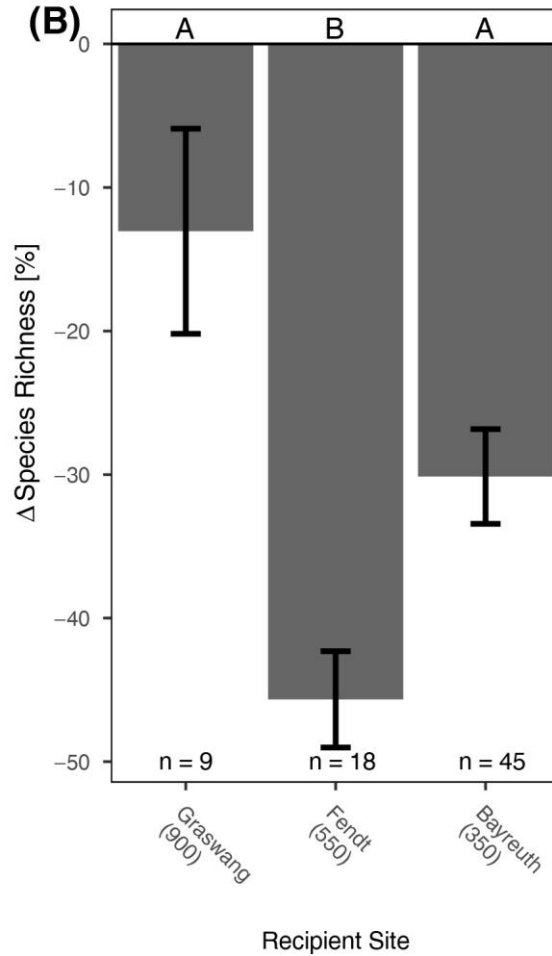
Michael Dannenmann, Ralf Kiese, Michael Schloter, Ingrid Kögel-Knabner, Sarah Asam, Anke Jentsch,  
Martin Wiesmeier, Thomas Köllner, Alexander Krämer,  
and the SUSALPS team







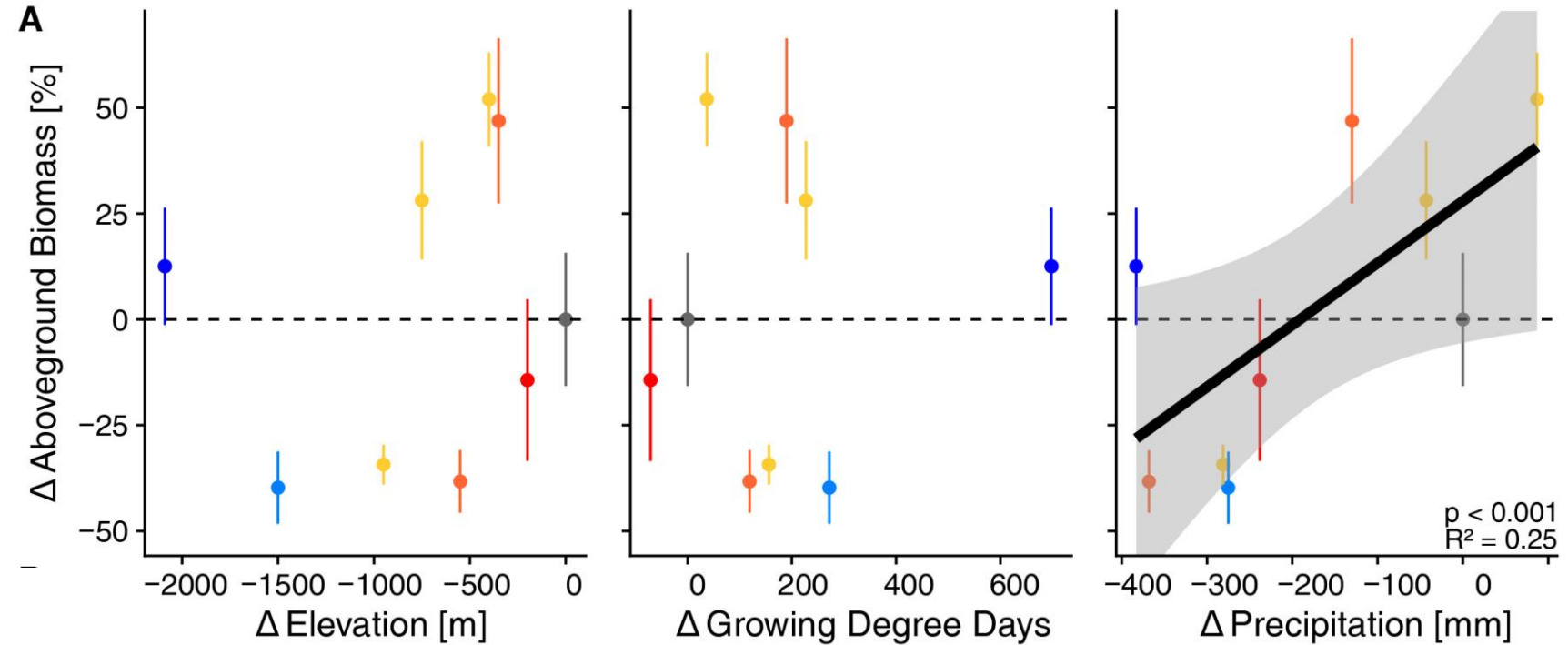
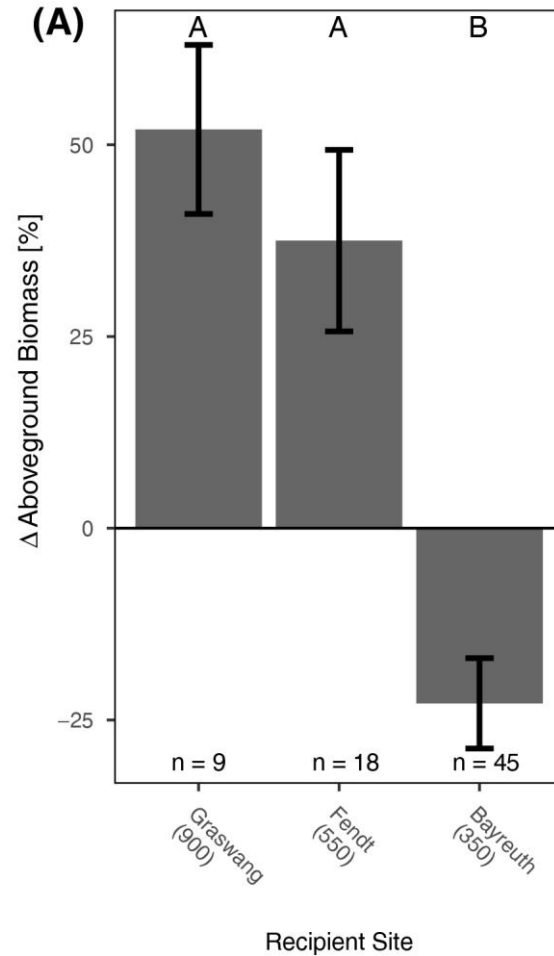




Origin-Site  
Elevation (m a.s.l.)

- Furka (2440)
- Stubai (1900)
- Esterberg (1300)
- Grasswang (900)
- Fendt (550)
- Mean of Controls

**Species richness:** 13 % - 46 % decrease with warming regardless of precip change.



Origin-Site  
Elevation (m a.s.l.)

- Furka (2440)
- Esterberg (1300)
- Fendt (550)
- Stubai (1900)
- Grasswang (900)
- Mean of Controls

**Biomass production:** 35% increase with temperature increase, if no change in precip.  
24% decrease where temperature increase, if precip decrease. Graminoids dominate.





Furka Pass  
2440



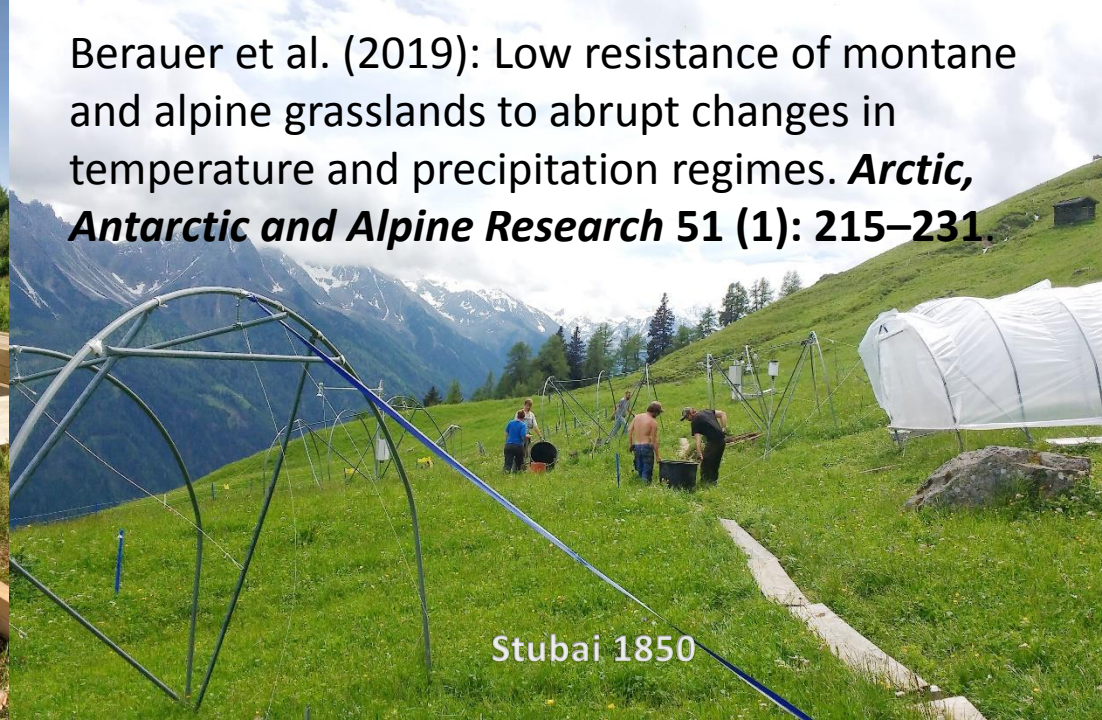
Esterberg 1300



Fendt 550



Bayreuth 350



Stubai 1850



Graswang 900

Berauer et al. (2019): Low resistance of montane and alpine grasslands to abrupt changes in temperature and precipitation regimes. *Arctic, Antarctic and Alpine Research* 51 (1): 215–231.