

Downslope Surveys Enhance GLORIA Summit Observations



Downslope Surveys...short history and purpose

Suggested in 2004 meeting

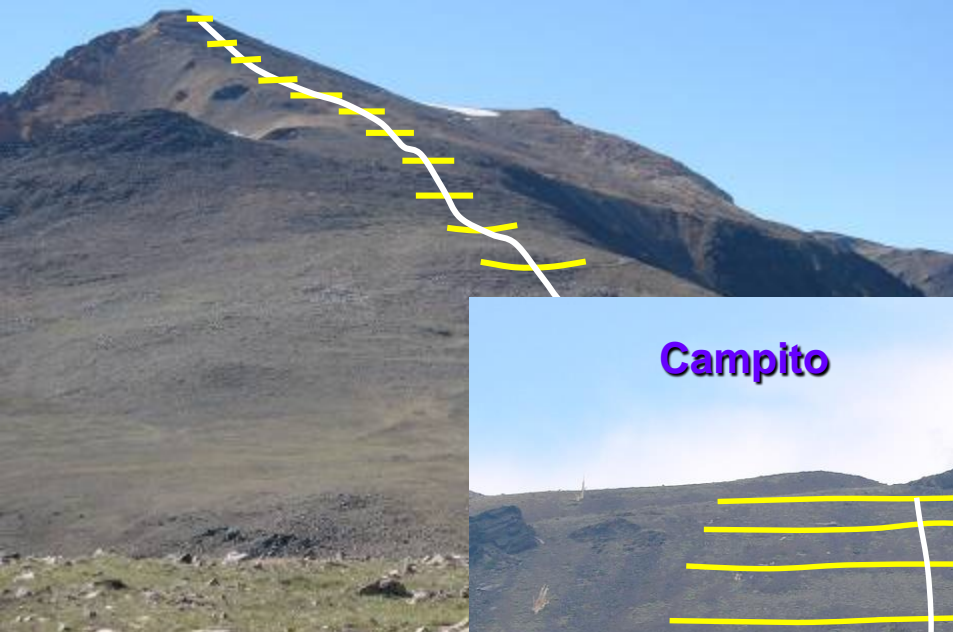
- Quantifying species elevation shifts
- Reveals species below summits
- Improves elevational resolution
- Assess plant/substrate distribution

Prototype surveys in 2007, 2008

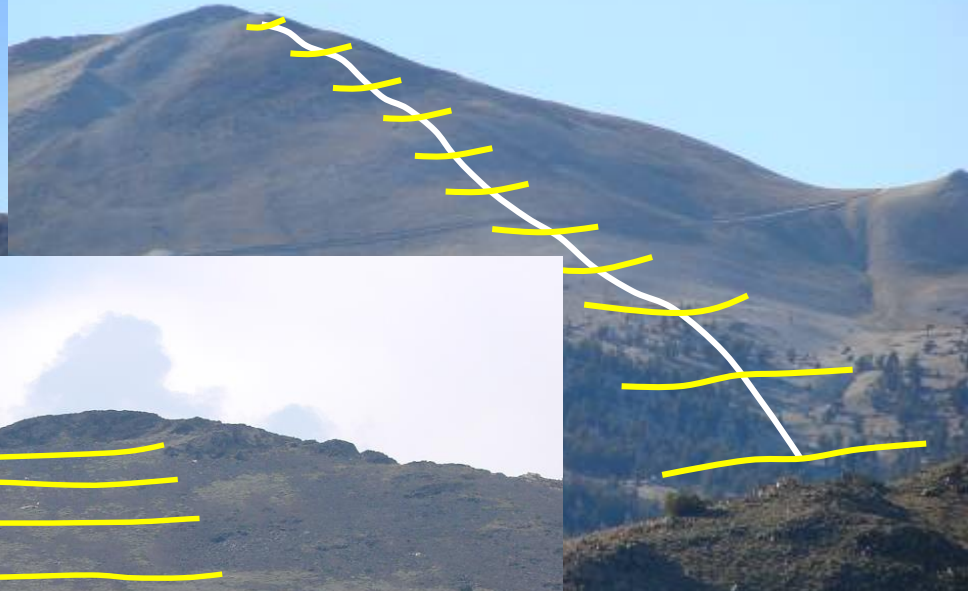
Improved Methodology 2011, 2012, 2013

Have gained preliminary information
Mostly baseline & some change

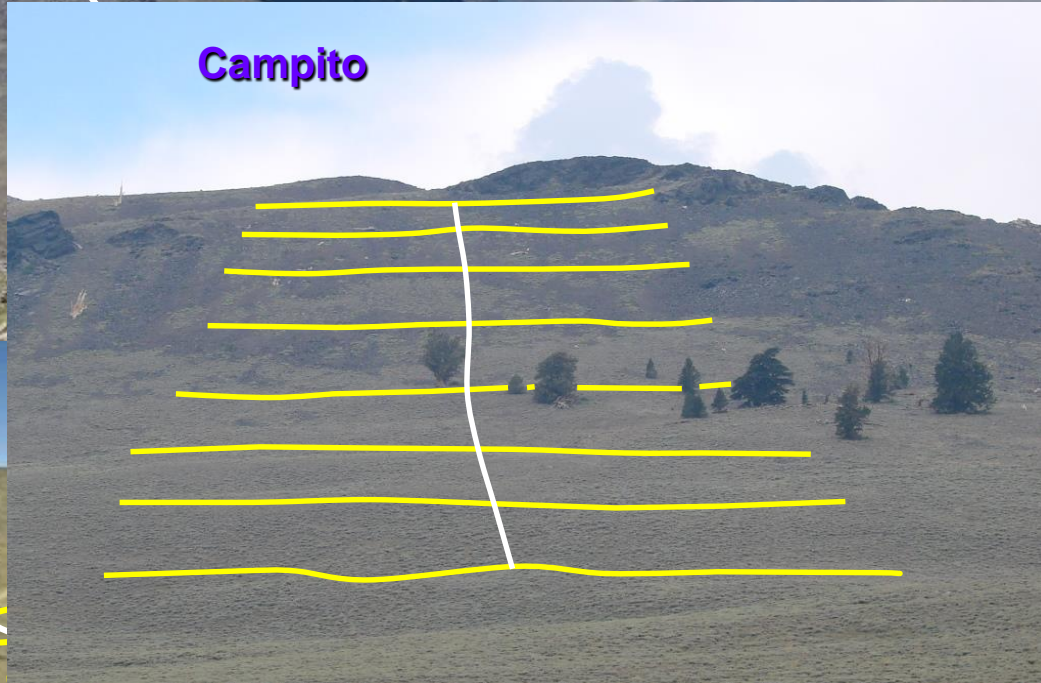
White Mtn



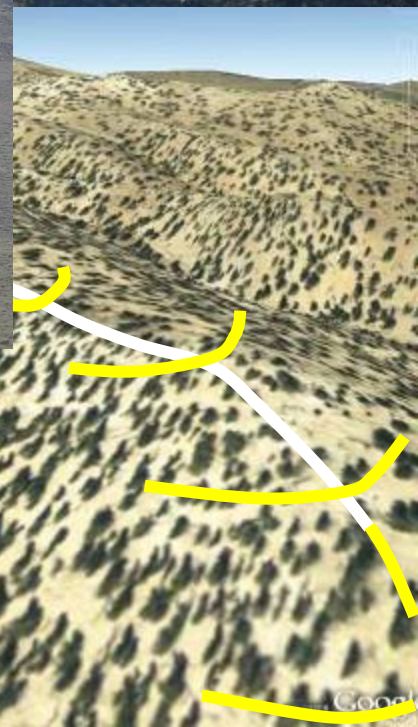
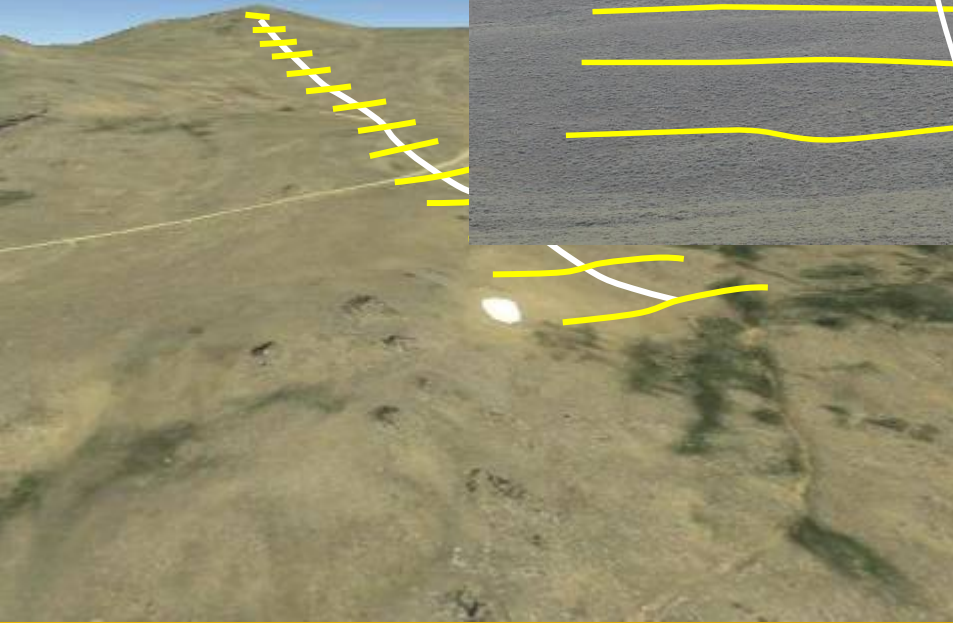
Sheep Mtn East



Campito



Barcroft

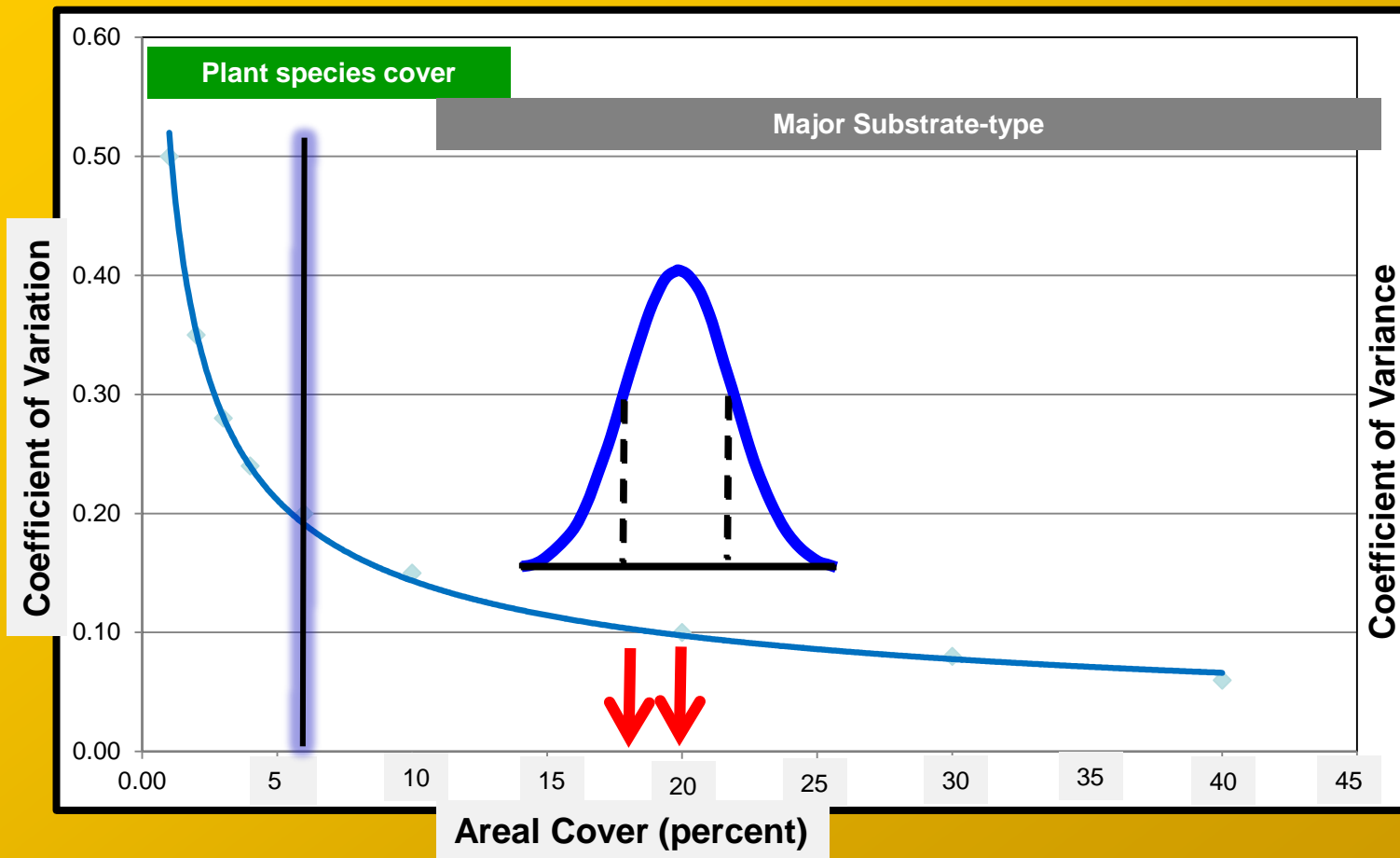


Basic layout



Accuracy of 400 sample points for measuring areal coverage

$$\text{Coefficient of Variation} = (\text{Std. Dev.})/(\text{Cover})$$



Photodocumentation

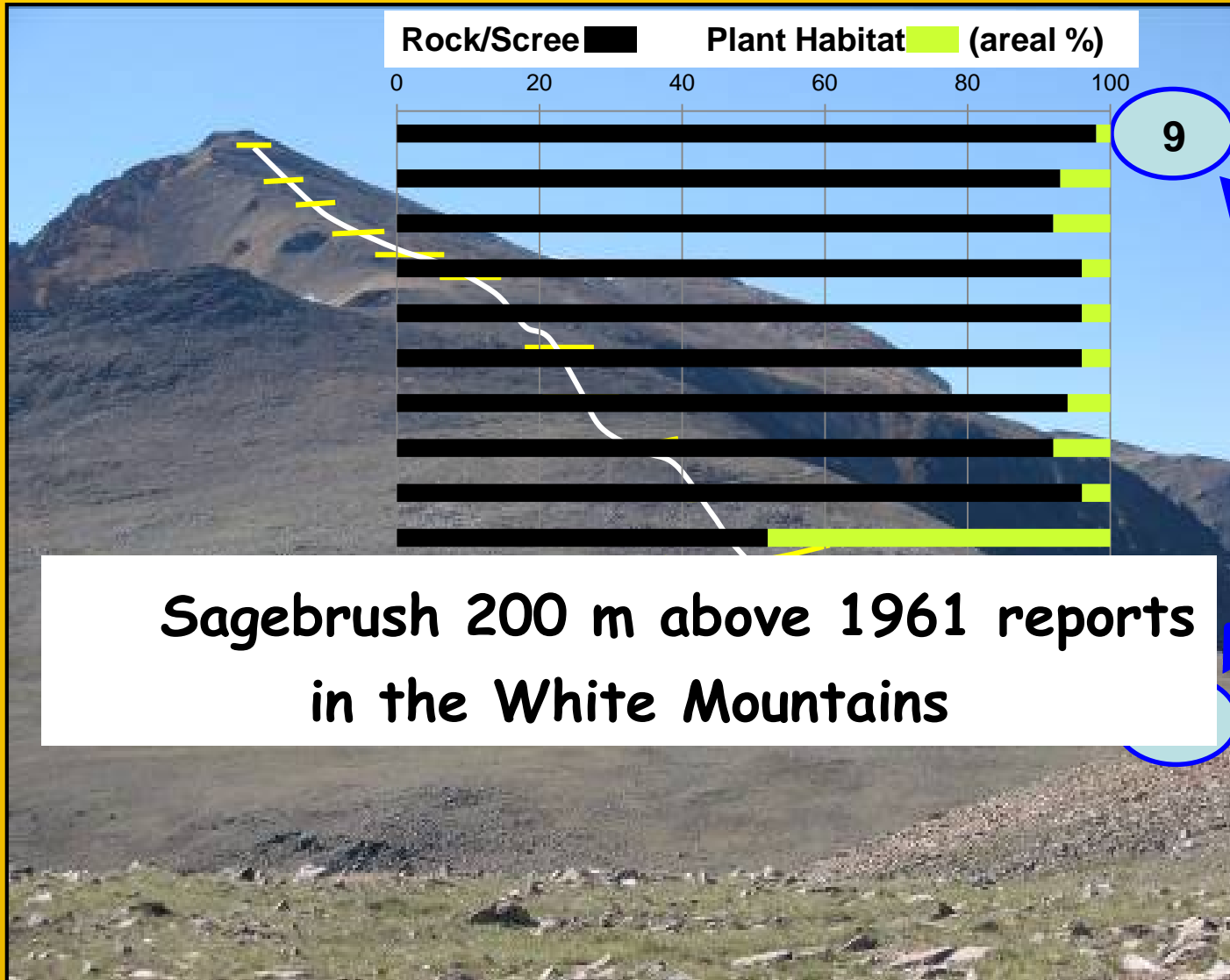
- Resurvey placement
- Substrate/plant characterization



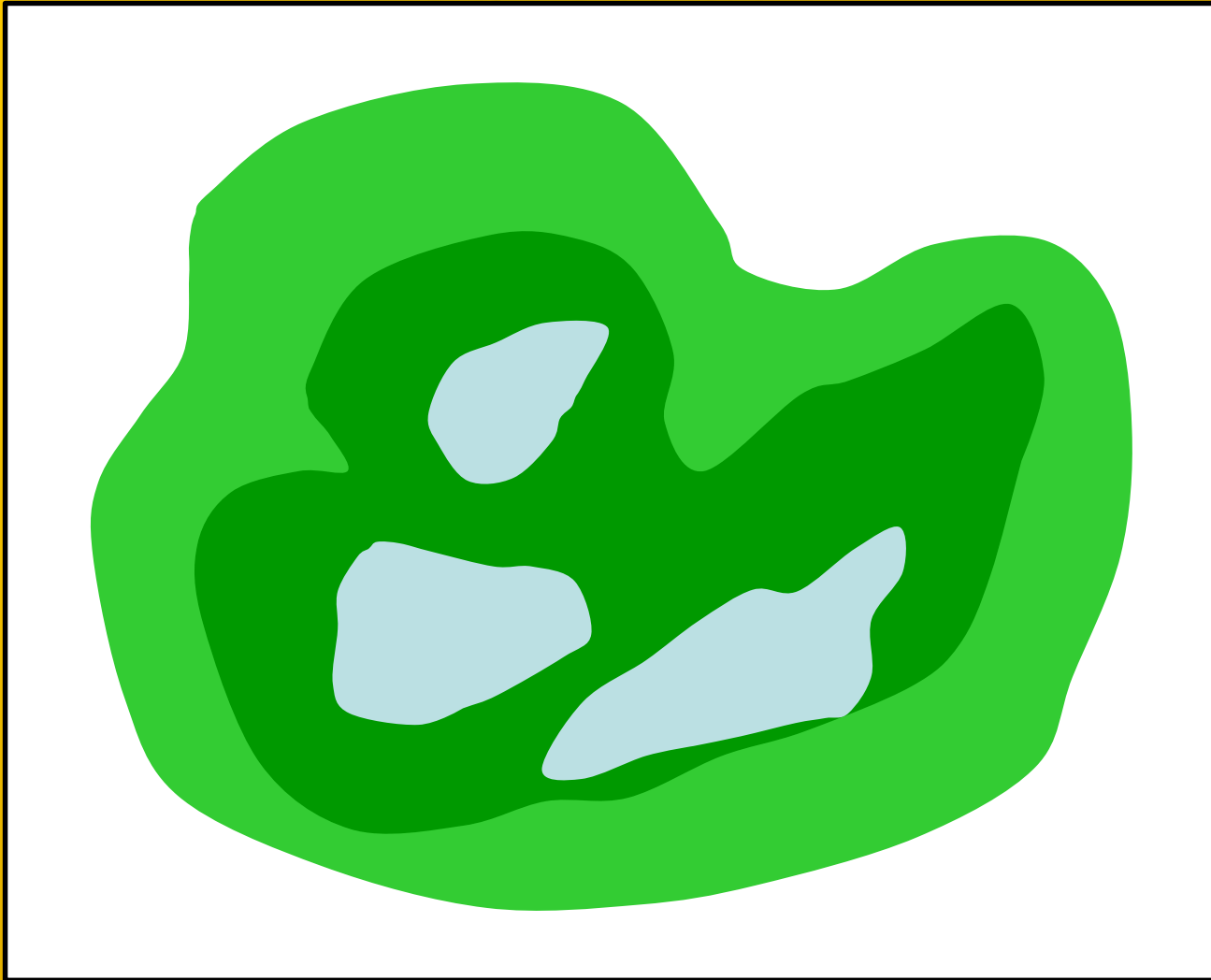
Variation by segment



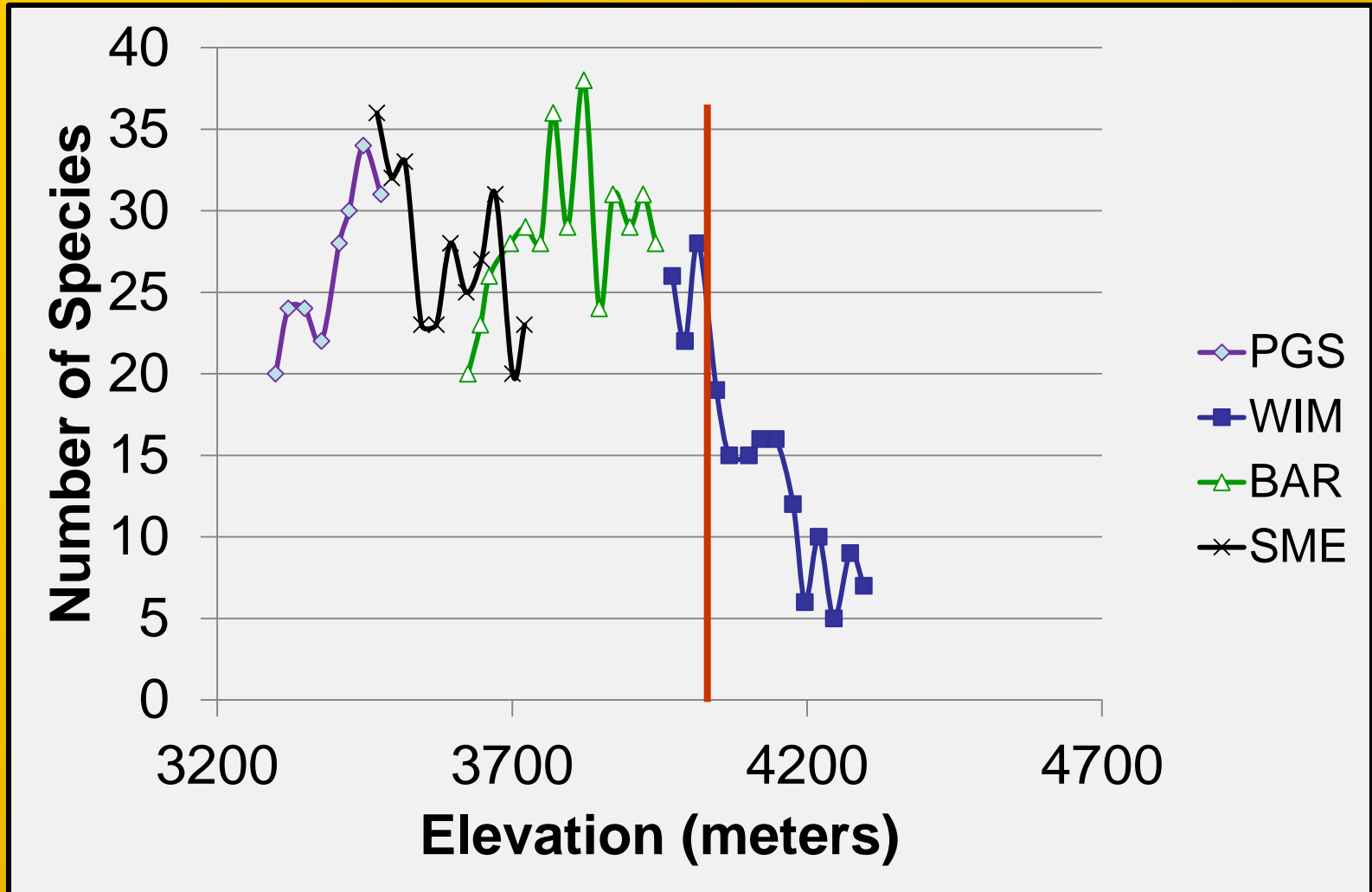
Rock/Scree vs. Plant Habitat White Mountain saddle to summit



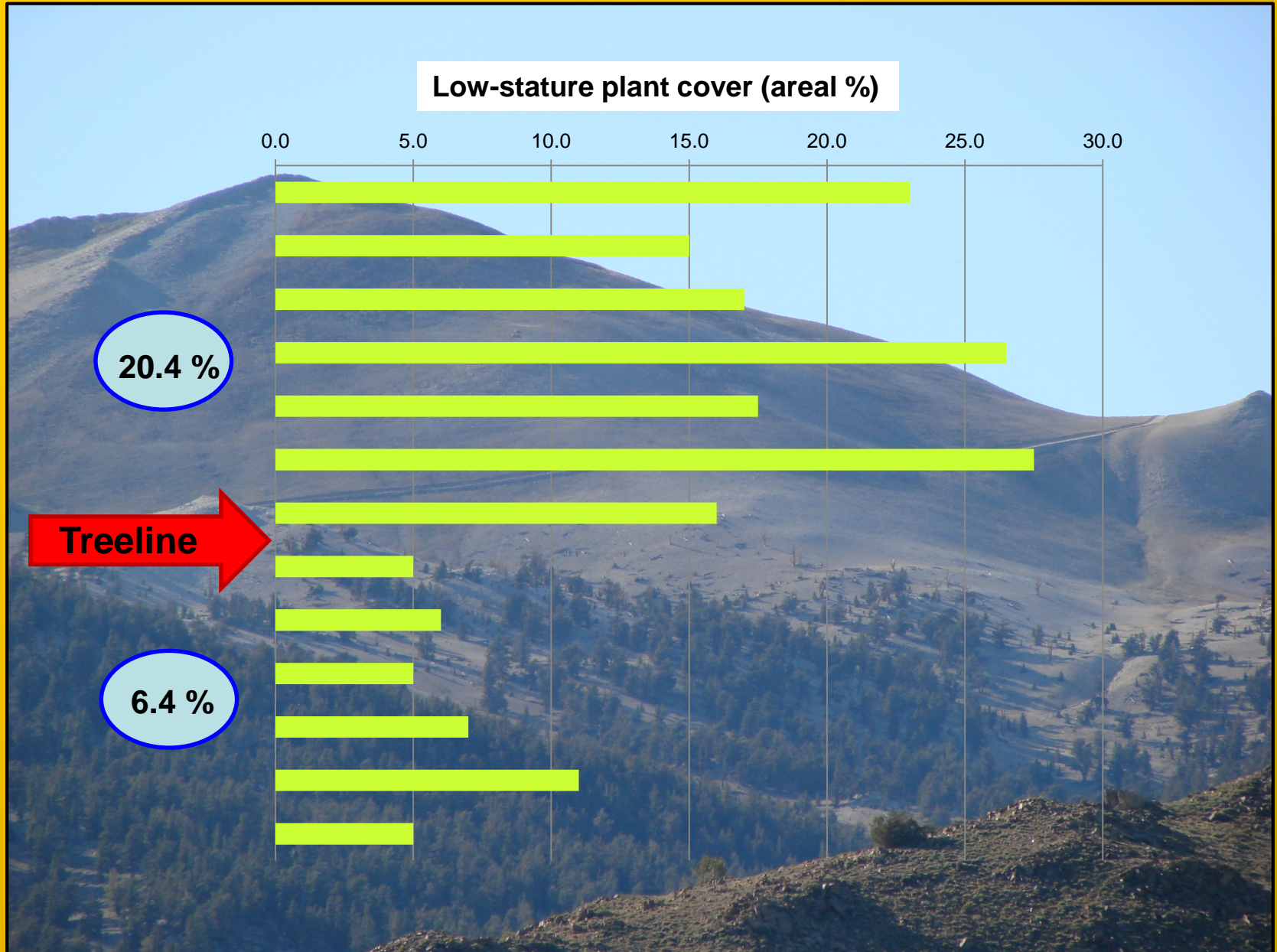
**Rising limits on plant distribution
can be compounded by loss of liveable
substrate**

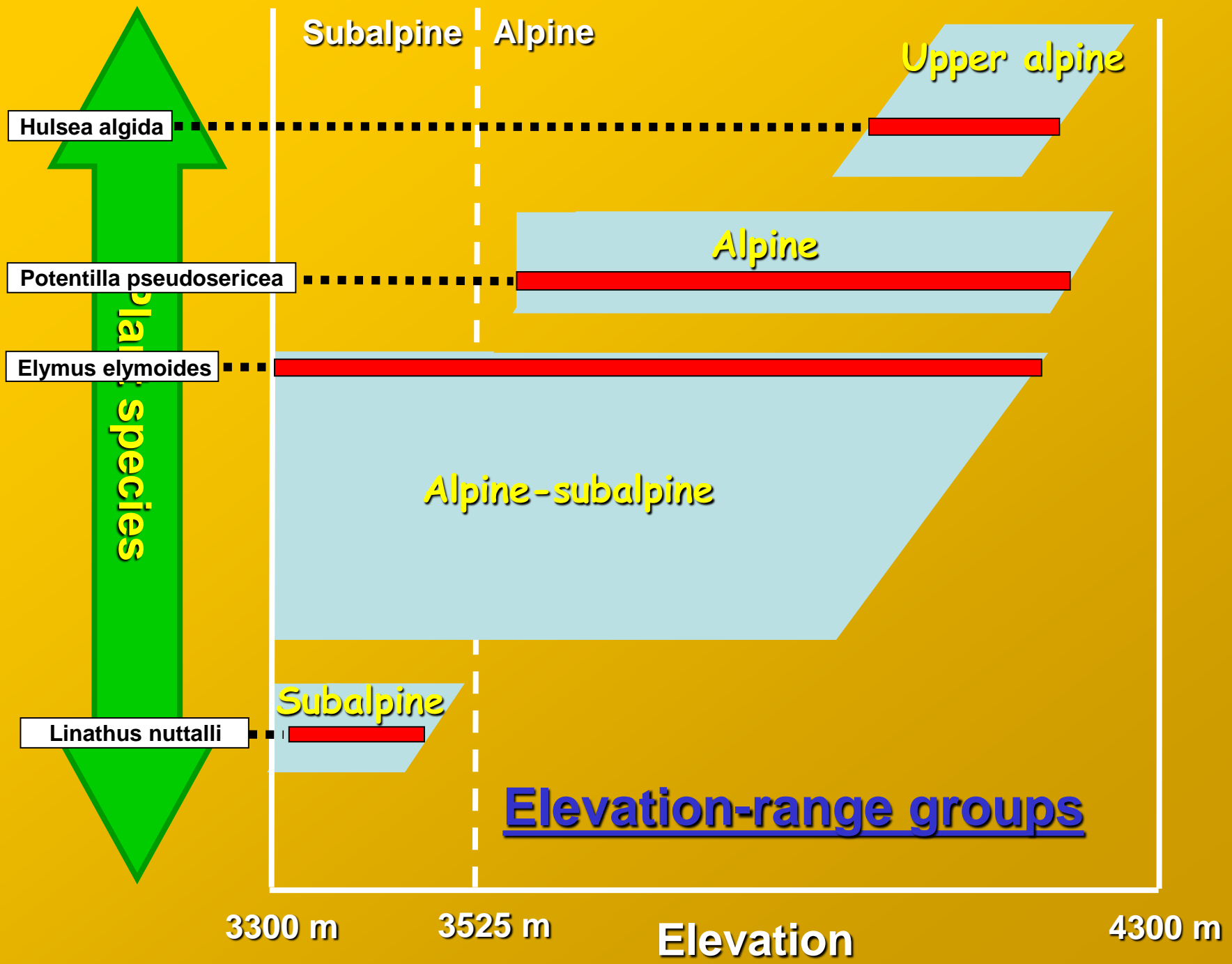


Species richness vs. elevation



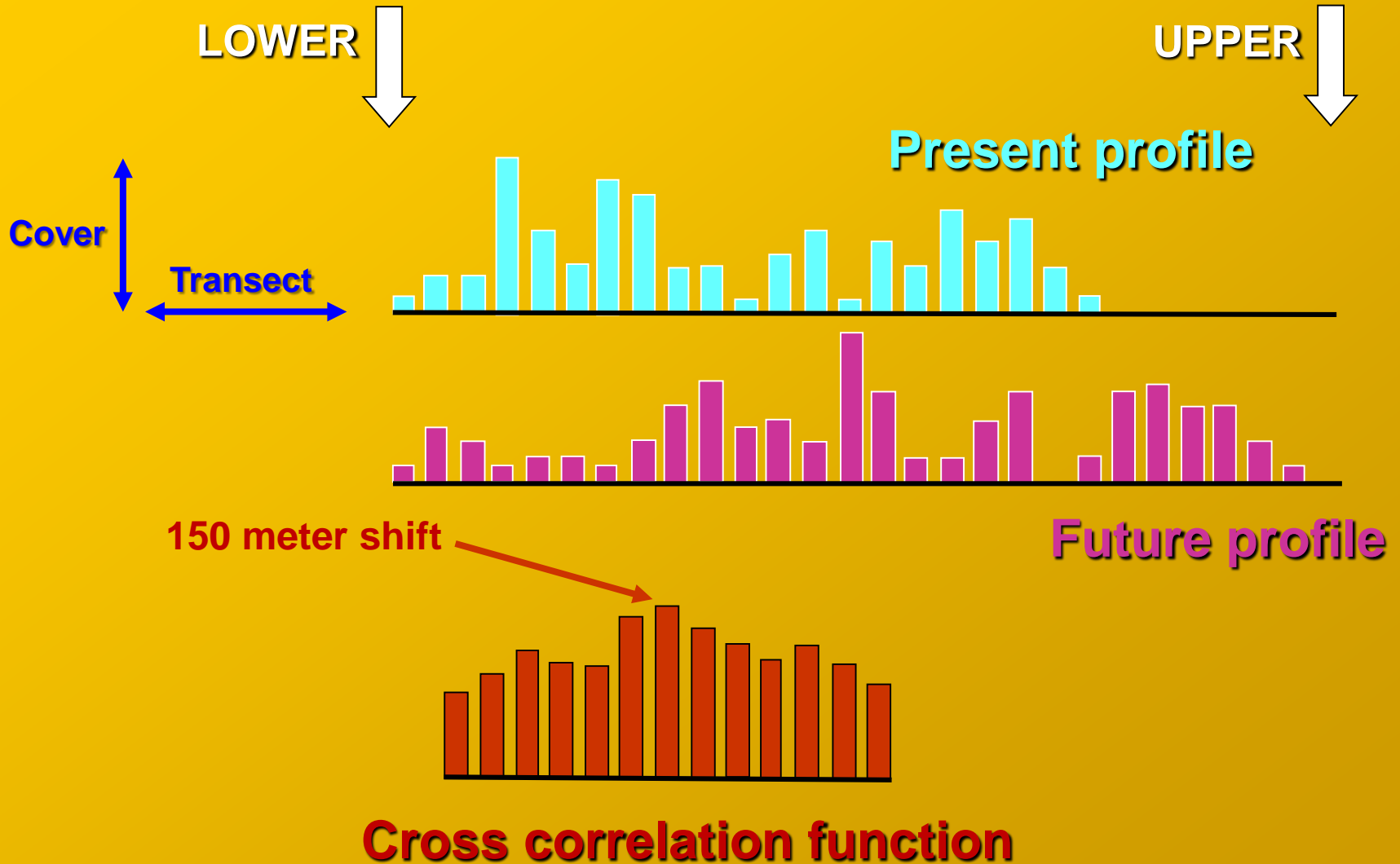
Low-stature plant cover in alpine vs. woodland





Cross correlation of profiles

Trifolium andersonii



Our Goals for the Week

Finish the field work

- Safely
- Become familiar with the process

Learn new things & get to know people

Have fun and enjoy the time here