



WHERE WILL MONTANE SCRUB GROW?

A place for montane scrub and natural treelines in the British uplands



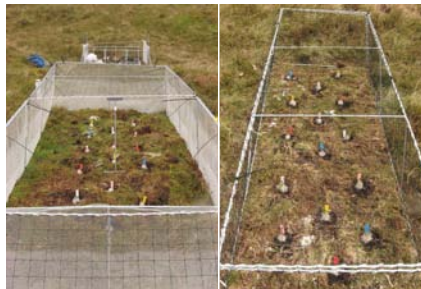
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The aim is to refine predicted potential distributions of montane scrub of high conservation value, particularly *Salix myrsinites* L. *Betula nana* L. and *Juniperus communis* L. throughout Scotland. Methods are illustrated below for *Salix myrsinites* in one 100 km x 100 km square.

Interactions with herbivores E.g. does browsing exacerbate wind effects?

Growth of young plants split between 18 different combinations of wind and simulated browsing measured in paired exposed - sheltered cages



Exposure	Time of browse	Intensity of browse
High	Late summer	High
Medium		Medium
Low	Winter	None



The effectiveness of shelter-netted cages is being measured using anemometers.

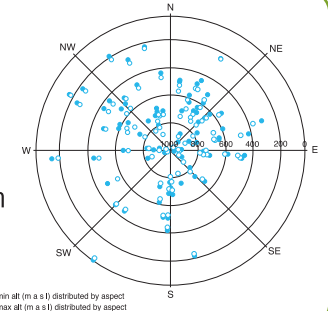


Compare current distribution of *Salix myrsinites* (● on map) with predicted potential distribution from the Native Woodland Model (NWM)

NWM areas suitable for willow scrub:

What other site factors (not in model) characterise current sites?

E.g. distribution of aspect with altitude for all Scottish sites



WHY ARE THEY DIFFERENT?

Is origin important?

Young plants used in expts are propagated cuttings collected from eastern, central and western locations



Is snow-lie critical?

Young plants in paired cages overwintering in or out of snow banks. Annual development measured in summer.



How do conditions differ between existing sites and predicted areas?

New data to be collected to improve predictions

- Soil, geology and digital terrain info
- Grazing pressure
- Temperature, windiness
- Surrounding vegetation

