# Can we predict recipient sites for translocated species? – A case study with *Flavocetraria nivalis* in the Cairngorms.

- Species translocations rely on modelling the location of recipient sites.
- Do models work for artic/alpine species given close coupling of species to the abiotic environment, and short but steep environmental gradients?
- Test using the lichen *Flavocetraria nivalis.*
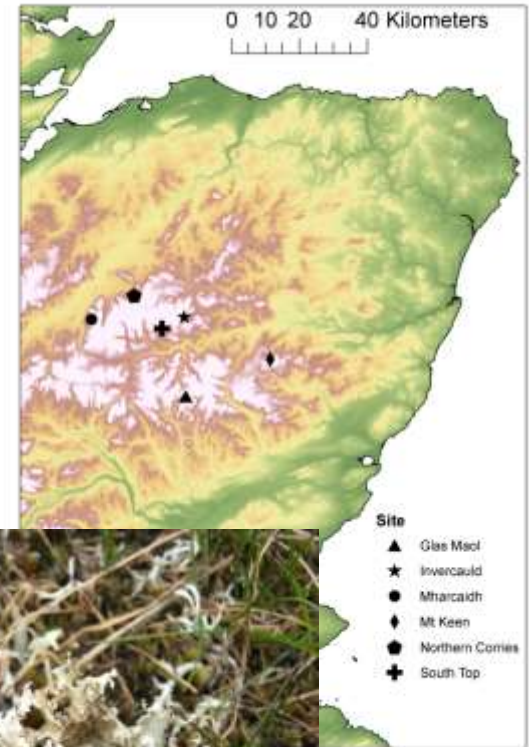
Field survey – acquire data on current distribution and environment	
Develop model of suitable locations/habitat	
Translocate lichens at independent study site	
Does the model predict lichen establishment?	

Site
- ▲ Glas Maol
- ★ Invercauld
- ● Mharcaidh
- ◆ Mt Keen
- ⬟ Northern Corries
- ✚ South Top

Results

- Initially models were poor at predicting lichen survival at the recipient site.
- Model fit improved with time: locations of surviving lichens better reflected the location of suitable habitats.
- Model fit improved with inclusion of plot-scale temperature data: indicates the importance of microclimatic conditions.

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Conclusions

- Microclimatic conditions are key for small immobile alpine species.
- Large-scale predictive modelling cannot capture this detail.
- Successful translocations will need:
    - a) multiple translocated individuals.
    - b) input from experts to locate suitable sites.