

Mountain hares on Ben Lomond

Understanding how changes in habitat drive population decline

CASE STUDY



The mountain hare (*Lepus timidus*) population on Ben Lomond has declined in recent decades to the point where they are now thought to be locally extinct.

The aim of this study was to establish what ecological factors are associated with the success of mountain hares and understand how changes in these factors on Ben Lomond have made the mountain less suitable for them.

The study used a combination of:

- A GIS technique to create mountain hare habitat suitability maps for the whole of Scotland.
- Vegetation surveys on Ben Lomond and in the Cairngorms, where there is a high density of mountain hares.

The study found that an increase in livestock grazing on the mountain has reduced the cover of heather, which the hares rely on for both food and shelter. National Trust for Scotland are working to reverse this change, but as the mountain is surrounded by lochs and commercial forestry it is unclear whether mountain hares will be able to repopulate the area.

STUDENT FEEDBACK



Richard Boddington,
MSc Environmental Management
(Conservation) and Faculty Research
Prize Winner

“Doing my dissertation project with National Trust for Scotland was really valuable. It meant that I had a real “client” to undertake the work for, making the project more focussed.

It also gave me access to NTS people, places and information that contributed greatly to the quality of the final report.”

HOST ORGANISATION EXPERIENCE



Alasdair Eckersall, Manager,
the National Trust for Scotland

“Sheep grazing pressures on Ben Lomond had already been reduced from the high levels of the late 1990’s, but a decline and disappearance of mountain hare was still seen. This MSc project was an ideal opportunity to explore why the hare population was not able to respond to sheep grazing reduction, and whether the population could be boosted through reintroduction. Indeed, this investigation would not have been undertaken at this time, without this collaboration with the University of Stirling. Richard’s dissertation was extremely useful in identifying the ecological factors impacting on mountain hare, and helped make a decision, for the time being at least, that a reintroduction was not feasible. This is a great example of how a small project can influence decisions on land management while providing the student with real world experience.”

ACADEMIC SUPERVISOR

Prof Nigel Willby, Biological and Environmental Sciences,
University of Stirling

“Mountain hares are an iconic species in Scotland and there are widespread concerns over their status and how their habitat is managed. This project brought together an academic partner (Stirling), one of the leading NGOs in upland management (NTS) and an enthusiastic MSc student (Richard) to tackle the question of the history and future of mountain hares on Ben Lomond. Richard was thus able to deploy the quantitative and field skills developed through his MSc to advise NTS on whether reintroducing hares would be a worthwhile strategy.”



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