

English Nature Research Reports, No. 612

Nesting ecology of *Formica cunicularia*

Report Authors: R. Kessock-Philip, H. Hurst, S.R. Rossington and G.J. Holloway

Keywords: Ants, *Formica cunicularia*, foraging, nest habitat, vegetation structure

Introduction

The study was undertaken to test a methodology for the investigation of foraging in *Formica cunicularia* prior to an investigation of fragile colonies of the threatened ant *Formica rufibarbis*. The ants are closely related and both require elevated temperature regimes probably commencing in the early successional stages of heathland colonisation.

What was done

Ant foraging activity was measured within a series of grids each centred on a nest of *Formica cunicularia*.

Vegetation patches within the grid were subsequently cut and ant foraging measured to detect any changes in foraging pattern.

Results and conclusions

- The sward is short for up to 1m from a nest.
- The sward is taller to about 2m from the nest but does not reach a mean height until 2-3m from the nest.
- Few ants foraged more than 10m from their nest.
- Foraging distance was not affected by cutting of the sward.
- Foraging intensity increased in patches where short swards were created by cutting.

continued >>>

English Nature's viewpoint

Management of heathland has to take into account the requirements of species which require hot sparsely vegetated ground and short swards, both characteristic of early succession. Whilst it would be possible to manipulate heathlands to provide small areas of nesting and foraging habitat, the challenge for the future is to create an appropriately dynamic management system which includes all stages of heathland succession.

Selected references

References are provided in the full report.

Further information

English Nature Research Reports and their *Research Information Notes* are available to download from our website: www.english-nature.org.uk

For a printed copy of the full report, or for information on other publications on this subject, please contact the Enquiry Service on 01733 455100/101/102 or e-mail enquiries@english-nature.org.uk