

ReSurveyEurope

Project Metadata Form

When contributing data to ReSurveyEurope, please fill in this form for each resurvey project and send it to Ilona Knollová (ikuzel@sci.muni.cz) together with the database. A resurvey project is understood as repeated sampling of a certain type of vegetation in a certain study area using specific methods.

- PROJECT NAME (identical with the Resurvey Project name given in the database):

LOTVS55

- FULL PROJECT NAME (use if the full project name is longer than used in the database):

Restoration of *Calluna vulgaris* moorland by excluding *Pteridium aquilinum*

- REFERENCE (publication or URL or DOI of the dataset if published online):

ALDAY, J.G., COX, E.S., PAKEMAN, R.J., HARRIS, M.P.K., LE DUC, M.G., MARRS, R. H. 2013. Overcoming resistance and resilience of an invaded community is necessary for effective restoration: a multi-site bracken-control study. *Journal of Applied Ecology*, **50**, 156-167. [http://doi: 10.1111/1365-2664.12015](http://doi:10.1111/1365-2664.12015).

- DATA OWNER: person(s), institution(s):

Rob Marrs (University of Liverpool)

- CONTACT E-MAIL:

calluna@liverpool.ac.uk

- METHODS (description of sampling design and methods):

The data set consists of 108 sub-sub-plots located on moorlands previously dominated mainly by *Calluna vulgaris* but now invaded by *Pteridium aquilinum* in Hordron Edge in the Peak District National Park and the North Peak Environmentally Sensitive Area (Derbyshire, United Kingdom). There were three replicate Blocks. A randomized VBlock-split0-split-plot experimental design was used with three replicate Blocks. The main-plot treatments (level 1, 10m x 30m) were: no treatment; cut once per year '93-'03; cut twice per year '93-'03; herbicide sprayed '93; herbicide sprayed '93, cut in '94; and cut in '93, sprayed in '94. Within each of these main-plot treatments there were two sub-plot grazing treatments (level 2, 10m x 15m); sheep grazing and no sheep grazing. Finally, there were three restoration treatments applied at the sub-sub-plot level (level 3, 10m x 5m): untreated, *Calluna* moorland litter applied as litter, and *Calluna* vegetation applied as cut brush. From 1994 to 2003, two estimates of vegetation composition were made from 1m x 1m quadrats randomly-located each year in each of the 108 sub-sub-plots – total number of quadrats per year =216. Estimates of the % cover of all species (vascular plants, bryophytes and lichens) were made visually.

- ENVIRONMENTAL DATA (list of environmental data measured):

- MANIPULATED PLOTS (description of the treatment if the plots were manipulated, e.g. mowing twice a year, fertilizing by NPK once a year, post-fire succession)

3 replicate blocks, each with 6 main treatments for control of *Pteridium aquilinum*, 2 sub treatment – sheep grazing, 3 sub-sub-treatments for restoration of *Calluna vulgaris*

A handwritten signature in black ink, appearing to read "Rob Marris".

Rob Marris

Liverpool, 2/1/2003date