

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):

LOTVS23_Pakeman_Lolium, LOTVS45_Pakeman_AgrostisFestuca,
LOTVS46_Pakeman_Molinia, LOTVS47_Pakeman_Nardus

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

Effect of grazing and abandonment on different type of grasslands

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

LOTVS23 Marriott C.A., Hood K., Fisher J.M. & Pakeman R.J. 2009. Long-term impacts of extensive grazing and abandonment on the species composition, richness, diversity and productivity of agricultural grassland, *Agriculture, Ecosystems & Environment* 134: 190-200.

LOTVS45 Hulme P.D., Pakeman R.J., Torvell L., Fisher J.M. & Gordon, I.J., 1999. The effects of controlled sheep grazing on the dynamics of upland *Agrostis-Festuca* grassland. *J. Appl. Ecol.* 36: 886–900.

LOTVS46 Grant S.A., Torvell L., Common T.G., Sim E.M. & Small J.L. (1996) Controlled grazing studies on *Molinia* grassland: effects of different seasonal patterns and levels of defoliation on *Molinia* growth and responses of swards to controlled grazing by cattle. *Journal of Applied Ecology* 33: 1267–1280.

LOTVS47 Common T.G., Wright I.A. & Grant S.A. (1998) The effect of grazing by cattle on animal performance and floristic composition in *Nardus*-dominated swards. *Grass and Forage Science* 53: 260–269.

All datasets: Pakeman, R.J., 2004. Consistency of plant species and trait responses to grazing along a productivity gradient: a multi-site analysis. *Journal of Ecology*, 92, 893-905.

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

Robin Pakeman

- CONTACT E-MAIL:

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- METHODS (description of sampling design and methods):

LOTVS23 - The data set consists of three identical experiments of eight plots (24 plots in total) located on *Lolium perenne* pastures at Fasque, Hartwood and Sourhope, United Kingdom. Four treatment combinations of grazing and fertilization were used from 1991 to 2000 for Fasque and 1991 to 2005 for Hartwood and Sourhope: 1) ungrazed and unfertilized, 2) sheep grazing monitored to maintain a sward height of 4 cm and unfertilized, 3) sheep grazing monitored to maintain a sward height of 8 cm and unfertilized, and 4) sheep grazing monitored to maintain a sward height of 4 cm and fertilized. Each species was measured in a transect, using the inclined-point quadrat method (32.5° to the horizontal). A minimum of 20 point contacts were recorded at each of 18 locations per plot (i.e. a minimum of 360 contacts per plot). Marriott et al. 2002.

LOTVS45 - The data set consists of 16 plots located on an *Agrostis capillaris* – *Festuca ovina* grassland at Cleish and Kirkton, United Kingdom. Four treatments were imposed from 1989 to 1995: 1) ungrazed, 2) sheep grazed to maintain a sward height of 3-4 cm, 3) sheep grazed to maintain a sward height of 4-5 cm, and 4) sheep grazed to maintain a sward height of 6-7 cm. Each species was measured in a transect, using the inclined-point quadrat method (32.5° to the horizontal) at 20 locations per plot with a minimum of 25 contacts per location. More information: (Hulme et al. 1999)

LOTVS46 - “The data set consists of eight plots located on a *Molinia caerulea* grassland in Bell Hill and Cleish, United Kingdom. Three treatments were used from 1985 to 1991: 1) cattle grazed 33% utilisation of *Molinia*, 2) cattle grazed 66% utilisation of *Molinia*, and 3) ungrazed. Each species was sampled using the inclined-point quadrat method (32.5° to the horizontal) at twenty locations per plot with a minimum of 25 contacts per location. More information: (Grant, Torvell, Common, et al. 1996).”

LOTVS47 - The data set consists of seven plots located on a *Nardus stricta* grassland in Cleish and Sourhope, United Kingdom. There were different treatments where cattle or sheep density was adjusted twice a week to maintain the vegetation height between tussocks, (i) 6-7 cm (cattle, two replicates), ii) 4–5 cm (cattle, three replicates), (iii) 4–5 cm (sheep, one replicate) and (iv) 3–4 cm (sheep, one replicate). Every year from 1984 to 1989 (3 replicates), and from 1988 to 1993 (4 replicates), each species was measured using inclined-point quadrat method (32.5° to the horizontal) at 20 locations per plot with a minimum of 25 contacts per location. More information: (Grant, Torvell, Sim, et al. 1996) and (Common et al. 1998).

- ENVIRONMENTAL DATA (list of environmental data measured):

Soil data for the *Lolium perenne* experiments at Hartwood and Sourhope is available for pH, Loss on Ignition and soil C, N, P, K, Ca and Mg. (Marriott, C.A., Fisher, J.M., Hood, K. and Pakeman, R.J., 2010. Impacts of extensive grazing and abandonment on grassland soils and productivity. *Agriculture, Ecosystems & Environment*, 139, 476-482.) There is similar archived soil data for Fasque.

- 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)

Different type of grazing intensity

LOTVS metadata, 17.6.2021

[place, date]

[owner's name]