Experimental data from wet meadow

Data source

Example data from first four years of the experiment, included in the book of Lepš & Šmilauer (2003) and Šmilauer & Lepš (2014), originally published in Lepš (1999).

Description of dataset



Design of the experiment (from Lepš 2014, Fig S1)

Long term experiment data, which monitors the influence of three different treatments on species composition of wet meadow vegetation. The treatments are as following: removal of dominant species (*Molinia caerulea*), fertilizing and mowing. The experiment has a form of latin square, divided into 24 plots (each treatment and their combinations are each represented by three replicates). Provided dataset represents 4 years of observations (1994-1997).

Locality

Experiment is conducted in experimental wet meadow Ohrazení, located around 10 km SE of České Budějovice, Czech Republic. The vegetation can be classified into alliances *Molinion* and *Violion caninae*.

Environmental variables

Name of variable	Description
MOWING	Mowing (each year in June or July)
FERTIL	Fertilized (65g NPK/m^2)
REMOV	Dominant removal (*Molinia caerulea*) using screw-driver (conducted the first year and repeated every year if necessary)
YEAR	Year of observation (0 = 1994, i.e. before the experiment started, 1-3 = 1995-1997)
Yr0-Yr3	Year of observation (dummy variable)
P1-P24	Plot code (can be used as covariable)

Download data

File name	File type	Description
ohraz.xls	Excel file	Contains species × sample matrix, environmental variables, description of experimental design and other information (this file comes with the book of Lepš & Šmilauer (2003), Chapter 15)
ohrazeni-spe.txt	tab-delimited txt format	Sample × species matrix (96 samples in rows, 86 species in columns)
ohrazeni-env.txt	tab-delimited txt format	Environmental variable matrix (samples in rows, variables in columns)

Script for importing data into R

```
ohrazeni.spe <- read.delim
('https://raw.githubusercontent.com/zdealveindy/anadat-r/master/data/ohrazeni-spe.t
xt', row.names = 1)
ohrazeni.env <- read.delim
('https://raw.githubusercontent.com/zdealveindy/anadat-r/master/data/ohrazeni-env.t
xt', row.names = 1)
```

References

- Lepš J. (1999): Nutrient status disturbance and competition: an experimental test of relationships in a wet meadow. *Journal of Vegetation Science*, 10: 219-230 pdf
- Lepš J. (2014): Scale- and time-dependent effects of fertilization, mowing and dominant removal on a grassland community during a 15-year experiment. *Journal of Applied Ecology*, 51: 978–987 www
- Lepš J. & Šmilauer P. (2003): Multivariate analysis of ecological data using CANOCO. Cambridge University Press. example data for download
- Šmilauer, P. & Lepš, J. (2014) *Multivariate Analysis of Ecological Data using Canoco 5.* Second Edition. Cambridge University Press, Cambridge, UK.

From:
https://anadat-r.davidzeleny.net/ - **Analysis of community ecology data in R**

Permanent link:
https://anadat-r.davidzeleny.net/doku.php/en:data:ohrazeni

Last update: **2018/04/09 16:43**