Vegetation data from Bryce Canyon (Utah, USA)

Source of data

Roberts (1992), used by author as example dataset in library `labdsv`.

Description of the dataset

The dataset contains 160 circular 375 m^2 plots, where all herb species and their cover was recorded (using so called Pfister scale, similar to Braun-Blanquet scale - see the table here. Altogether 169 vascular species were recorded. The woody species, although also recorded in the original study, are not included in the dataset (authors argument that woody species more than ecological factors reflect successional status of the vegetation).

Locality



Bryce Canyon National Park has an area 14000 ha, and is located in Southern Utah (USA) on the floristic boundary between flora of *Rocky Mountains* and *Colorado Plateau*. Typical vegetation of the park consists of badlands in lowlands, Pinus-Juniperus forest and Pinuse ponderosa savanas at middle elevation and mixed coniferous forests in higher elevation.

The file with coordinates, which can be opened in Google Earth: bryce.kml[1)]

Environmental variables

Name of the variable	Description
labels	Plot numbers
annrad	Annual sum of direct radiation
asp	Aspect [°]
av	aspect = (1+cos(asp-30)/2)
depth	Soil depth [*deep* and *shallow*]
east	UTM coordinates of latitude
elev	Elevation [ft]
grorad	Radiation during the vegetation season
north	UTM coordinates of longitude
pos	Topographical position [*bottom*, *low_slope*, *mid_slope*, *ridge*, *up_slope*]
quad	USGS 7.5 minute quadrant
slope	Slope [%]

Script for direct import of data into R

```
# If you need to install labdsv package, use the following:
# install.packages ('labdsv')

library (labdsv)
data (bryceveg)  # matrix with species data (160 samples in rows and 169 species in
columns)
data (brycesite) # matrix of environmental variables (160 samples in rows and 11
environmental variables in columns)
```

References

Roberts D.W. (1992): Plant Community Distribution and Dynamics in Bryce Canyon National Park: Final Report for Project PX 1200-7-0966 (www)

1)
you need Google Earth installed on your computer to open this file; zdroj: http://cc.oulu.fi/~jarioksa/opetus/metodi/

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

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Last update: **2015/03/18 16:48**