xReSurveyEurope

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):

  Bauer_2022_Garchinger_Heide

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

  Vegetation surveys from the calcareous grassland of the nature reserve Garchinger Heide

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

  - Bauer, Markus; Albrecht, Harald (2022): Vegetation surveys from the calcareous grassland of the nature reserve Garchinger Heide. PANGAEA, https://doi.org/10.1594/PANGAEA.940643
    related:
    Albrecht, Harald (2020): Vegetation monitoring in a 100-year-old calcareous grassland reserve in Germany. Basic and Applied Ecology, 42, 15-26, https://doi.org/10.1016/j.baae.2019.11.003

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

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- METHODS (description of sampling design and methods):

  This dataset contains the vegetation surveys from a monitoring of the calcareous grassland of the nature reserve 'Garchinger Heide'. These surveys should discover species composition changes in the second-oldest nature reserve of Bavaria. Two different studies were resurveyed in 2018. The **"transect" dataset (relevé 85-204)**is based on plots of Briemle (1973), was first surveyed in 40 plots in 1984 (Pfadenhauer & Liebermann 1986) and resurveyed in 1993 (Höngdobler 1995). The **"block" dataset (relevé 1-84)**of 42 different plots is from 2003 (Röder 2003). All surveys were conducted in June,

but the methods were different: **the"transect" study used the frequency method** (Raunkiaer 1918)with plots1 m^2 in size and sub-divided into 10×10 quadrats. The plots were arranged in three transects situated in the south of the reserve The frequency counts were conducted at the end of April and in June; for the data analysis, the higher of the two values was used. Frequency data were recorded in 1984 (Pfadenhauer & Liebermann, 1986) and 1993 (Höngdobler, 1995). While Briemle only examined typical and endangered species (therefore his data is not included), the subsequent studies included all plant species.
The "**block" study used coverage estimations** (Braun-Blanquet 1964; with the Londo scale (Londo 1976). Plots had a size of 4 m^2 and were distributed over three blocks in the north, middle, and south of the reserve.
Following variables were surveyed: species composition of spermatophyta, vegetation height, vegetation cover, moss cover, bare soil cover. Based on the species composition, community-weighted means for Ellenberg indicator values, specific leaf area, seed mass, canopy height were calculated, and the functional dispersion of these three functional plant traits
Management of the area is nature conservation management: late-summer mowing with some strips mown every two years
Complete data available on PANGAEA

- 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)

same management for all plots (nature conservation, late summer mowing in changing strips)

[Halle, 15.01.2023]

[Ute Jandt on behalf of Markus Bauer]