



European Vegetation Archive Data Request Form



To obtain data from the European Vegetation Archive (EVA), including the ReSurveyEurope Database, please first enquire the EVA database administrator Ilona Knollová (ikuzel@sci.muni.cz) whether the data that meet your needs are available. If they are, please fill in the form below and submit it to Ilona or another member of the EVA Coordinating Board (or ReSurveyEurope Board if you ask for data from the ReSurveyEurope Database).

- Applicant's name:

Joshua Erkelenz

- Applicant's institutional address:

Department of Botany and Zoology, Masaryk University Brno, Czech Republic

- Applicant's e-mail:

erkelenz@mail.muni.cz

- Project title:

Drivers of functional understory diversity in European mountain forests.

- Are you asking for core EVA data (non-repeated vegetation surveys) or for ReSurveyEurope data (repeated vegetation surveys)?

I would like to request core EVA data only.

- Brief description of the aims and methods of the study:

The project aims at answering the following questions: Do the mountain ranges in Europe show different trends in functional understory diversity and composition along elevational gradients? If so, which biotic and abiotic factors are responsible for these differences?

First, we select all forest plots from the EVA database that are positioned within the mountain ranges of Europe as defined by the European Environment Agency and that have a sufficiently high location precision. Based on their location, we create a table on the local biotic and abiotic conditions like elevation, slope aspect, topographic roughness, climate, forest type, soil properties (pH) and latitude. Then, we collect functional data on the most important (and well studied) plant traits known to respond to elevational gradients from publicly available trait databases (e.g. TRY). After assembling the trait set for each species within the selected plots, we calculate community weighted means, functional richness and divergence for each plant community in each plot. Finally, we model the relationship between these functional metrics and the previously assembled environmental conditions.

- Will someone else be involved in data editing or analysis in addition to the applicant?

My supervisors Zdeňka Lososová and Josep Padullés Cubino will be involved in data editing and analysis. Other members of the Vegetation Science Group at Masaryk University can be involved in data analysis if needed, as well as Francesco de Bello from the Desertification Research Center.



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- Estimated time of delivery of results (e.g., manuscript submission):

2024-2025

- Geographic area needed (e.g., countries or range of geographic coordinates):

The whole geographic extent of the EVA database, except for Russia, Belarus, Ukraine the Caucasus countries and Moldova, for which we have no elevation and aspect models with a very high accuracy.

- Do you need plots to be georeferenced? If so, what is the minimum accuracy of plot location (in metres or kilometres) needed for your project?

Every plot needs to be georeferenced. There is no requirement for minimum accuracy.

- Vegetation types needed (syntaxa):

All plots classified as forest.

- Other data selection criteria:

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- Envisaged publications:

One paper submitted to an international journal focussed on functional ecology, forest science and/or vegetation science in general.

- **Data deposition.** Some journals require data used for the analysis to be stored in a public repository to ensure the repeatability of the analysis. According to EVA Rules, you are not allowed to store the original vegetation-plot data obtained from EVA. However, if you plan to publish in such a journal, you may deposit a reduced EVA-derived dataset that (1) would make it possible to repeat the analysis published in the paper and (2) does not contain any information not used in the analysis. For example, such a dataset can contain only a subset of species (e.g., only angiosperms or only neophytes), or replace species names with codes, or replace species cover values with presences/absences, or remove all the header data, or replace the exact plot coordinates by coarse grid-cell coordinates etc. If you plan to deposit reduced information from vegetation plots, please describe here what might be deposited. If the project developed so that you needed to deposit more information than specified here, you would need to ask specific permission from the Custodians of the EVA databases used in your analysis before the dataset is deposited.

If published in a journal requiring open data repositories, we will make sure to not publish the original dataset, instead sharing the minimum data needed to reproduce the analysis, for example with anonymized species names.

- **Plant trait data from the TRY consortium.** If you plan to combine your analysis of vegetation-plot data with plant trait data, you can also request a dataset of 18 gap-filled traits for a large number of plant taxa prepared by the TRY consortium. These traits include Leaf area, Specific leaf area, Leaf fresh mass, Leaf dry matter content, Leaf C, Leaf N, Leaf P, Leaf N per area, Leaf N:P ratio, Leaf delta15N, Seed mass, Seed length, Seed number per reproductive unit, Dispersal unit length, Plant height, Stem specific density, Stem conduit density, and Conduit element length. This dataset can be provided to you by the EVA manager together with the vegetation-plot data. If you use this dataset, you must inform about your project the TRY data contributors who might be potentially interested and invite them as potential co-authors, assuming they will make an intellectual contribution to your paper. The list of the TRY data contributors will be sent to you together with the gap-filled trait dataset.



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Yes

- Specification of the co-authorship arrangements in publications based on the requested data. Note that the EVA Rules recommend that co-authorship is offered to a representative of each database providing data that are particularly important for the project (e.g., a relatively large proportion of the final dataset used in the analyses or data from unique vegetation types or under-represented geographic areas). This database representative should be an expert in the topic of the project (not necessarily the custodian or deputy custodian), and this person should contribute to the project more than just by providing the existing data, e.g. by intellectual contribution to the concept of the paper, preparation of new data, or helping with data analysis, interpretation of the results or writing parts of the paper (see the IAVS Code of Professional Ethics: <http://iavs.org/Governance/Code-of-Professional-Ethics.aspx>). The project leader should enable active participation by regularly informing potential co-authors about the progress of the project from its early stage. The project leader should also make final co-authorship arrangements based on the real input of the individual contributors.

We generally welcome everyone who is willing to significantly contribute to the conceptualization, data preparation, analysis or writing of this paper and offer co-authorship in these instances. All data contributors who declare their interest in this study in the EVA online form will be updated on the progress of the project and involved in major decisions regarding data preparation and analysis.

- Eligibility of the applicant to receive EVA or ReSurveyEurope data. Specify to which EVA or ReSurveyEurope database the applicant has contributed; if the applicant is not the custodian or deputy custodian of an EVA or ReSurveyEurope database, give a name of a custodian or deputy custodian who supports this data request.

This data request is supported by Zdeňka Lososová and Milan Chytrý.

- I agree with the terms of EVA Data Property and Governance Rules as approved on 26 May 2012 (<http://euroveg.org/download/eva-rules.pdf>).
- If I ask for ReSurveyEurope data, I agree with the terms of ReSurveyEurope Data Property and Governance Rules as approved on 6 April 2022 (<http://euroveg.org/download/resurveyeurope-rules.pdf>).
- In any result obtained based on EVA core data (non-repeated vegetation surveys), I will cite the EVA report article (Chytrý et al. 2016; <https://doi.org/10.1111/avsc.12191>). In any result obtained based on the ReSurveyEurope data (repeated vegetation surveys), I will cite the ReSurveyEurope report article as soon as it is published. In addition, I will cite individual source databases used in my project (if possible, in the list of References; if not possible, at least as a list of databases in the electronic supplementary material).
- If I ask for the plant trait data from TRY, I agree to invite to my project the TRY data contributors following the list received from the EVA database manager.

Brno, 2024/02/19

Joshua Erkelenz