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:

  Francesca (first name) Rosa (family name)

- Applicant's institutional address:

  Chair of Ecological Systems Design, John-von-Neumann-Weg 9, 8093 Zürich, Switzerland

- Applicant's e-mail:

  rosa@ifu.baug.ethz.ch

- Project title:

  Life cycle assessment methodology for assessing land use impacts on functional plant diversity

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

  core EVA data and only the data also available in sPlot.

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

  Life Cycle Assessment (LCA) allows for an environmental assessment throughout the life cycle and along the whole supply chain of services and products. Although LCA already includes impacts on ecosystem quality, the methodology can be improved to better reflect ecosystem complexity. Notably, the consensus and model recommended by the UNEP-SETAC Life Cycle Initiative quantifies the impacts on biodiversity as "potentially disappeared fraction of species". Species-richness indicators, however, might not be enough to describe the impacts on the ecosystem and its functionality.

  To address this problem, a proof of concept on how to characterize functional plant diversity in life cycle assessment has recently been developed and applied to Germany [Scherer, 2020]. The study focused on land use as the major driver of terrestrial biodiversity loss. This project aims to carry out the next step and scale up the study to the European level. To do this, data on species composition and traits are needed.

  We will first use the vegetation data retrieve the species composition and link the vegetation plot locations to land use data. Second, we will calculate functional diversity indicators using the trait information. Third, other factors that might contribute to functional diversity responses are taken into account. Finally, an interpretation of the combined results will be performed,

together with an integration into the LCA framework.

Scherer L., van Baren S.A., and van Bodegom P.M. (2020). Characterizing Land Use Impacts on Functional Plant Diversity for Life Cycle Assessments. Environ Sci Technol 54 (11), 6486–6495.

NB: The project was first developed under the sPlot domain, as the initial scope was global coverage. The authors have recently decided to focus first on the European level.

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

Laura Scherer, Leiden University

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

July 2023

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

All countries

- 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?

Yes. No minimum accuracy.

- Vegetation types needed (syntaxa):

All

- Other data selection criteria:

- Envisaged publications:

Life cycle assessment methodology for assessing land use impacts on functional plant diversity (working title)

- 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.

- 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.

  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.

  One representative of each EVA database (custodian or a person delegated by the custodian) will be considered as a co-author if the custodian expressed interest in this project by opting-in when the call through sPlot was made or through the EVA opt-in form and if the database provides > 2% of the final number of plots or fewer data from biogeographically important regions that are not represented in other databases.

  Co-authors will be asked to contribute with intellectual input in the interpretation of the results and commenting on the manuscript. All the other data contributors (custodians) of EVA will be acknowledged in the resulting publication.

- 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.

  Prof. 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.

Zürich, 09 February 2023

Francesca Rosa