



## European Vegetation Archive Data Request Form

To obtain data from the European Vegetation Archive (EVA), please first enquire the EVA database administrator Ilona Knollová (ikuzel@sci.muni.cz) whether the data meeting 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.

- Applicant's name:

Jürgen Dengler, Florian Jansen, Lubomír Tichý, Milan Chytrý

- Applicant's institutional address:

JD: Zurich University of Applied Sciences  
FJ: University of Rostock  
LT and MC: Masaryk University, Brno

- Applicant's e-mail:

[dr.juergen.dengler@gmail.com](mailto:dr.juergen.dengler@gmail.com)  
[florian.jansen@uni-rostock.de](mailto:florian.jansen@uni-rostock.de)  
[tichy@sci.muni.cz](mailto:tichy@sci.muni.cz)  
[chytry@sci.muni.cz](mailto:chytry@sci.muni.cz)

- Project title:

Supranational ecological indicator values in Europe

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

The EIVE Consortium (<https://www.researchgate.net/publication/346443556>) has been working on merging ca. 30 existing national and regional systems of ecological indicator values in Europe into a harmonized European consensus list. The task was challenging as the definition and scaling of indicators in different lists was quite inconsistent and likewise the plant nomenclature. A well-documented workflow has been developed to do this and the resulting system appears promising. Recently, an independent approach with similar aims has emerged.

Now both consortia have agreed to cooperate and to prepare two distinct and complementary products:

(a) **Ellenberg-type indicator values** as a single fast paper, using only those indicator value systems that can exactly be matched to the original scale of Ellenberg, (e.g. from Landolt et al. exclusively their temperature scale, which has 9 steps, not the soil parameters with 5 steps, nor the moisture with 9 steps vs. 12 in original Ellenberg). With these limitations, this paper will largely remain restricted to **nemoral Europe and Italy**. The lead authors will be Lubomír Tichý and Milan Chytrý.

(b) **Ecological Indicator Values for Europe (EIVE)** is planned as a series of papers with numbered releases of EIVE. These will integrate any lists that can be integrated, we use a new continuous scale of 0 to 10 throughout, we remove logical inconsistencies (e.g. 11 and 12 on Ellenberg's moisture scale differ only morphologically, but not in site



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conditions, thus are merged), we have values for niche location and niche width, and **all of Europe** will be covered. The lead authors will be Jürgen Dengler and Florian Jansen (and potentially Olha Chusova for the second paper).

Both paper (a) and the series of papers (b) will be prepared independently but in a close cooperation between the author teams, which will be largely overlapping.

For paper (a), we will calculate indicator values for species based on various measures of co-occurrence with other species in EVA vegetation plots. This calculation will be used for imputing missing indicator values, for optimising initial values derived from the consensus of regional lists and/or for checking the correctness of the values available in the existing datasets.

In case of the EIVE paper series (b), we here apply only for the first main developments (which potentially can be more than two papers). (For potential follow-up papers, e.g. on inclusion of bryophytes and lichens or regionalisations of EIVE, we would submit new proposals):

- For EIVE 1.0, we potentially will use EVA data for “validation” of our new system (only in this case we will include EVA data contributors in the author list).
- For EIVE 2.0, we will use EVA to optimize the indicator values of EIVE 1.0 iteratively and calculate indicator values for species not covered by EIVE 1.0 (here EVA data contributors are included in any case).

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

The EIVE Core Team consists of Jürgen Dengler, Florian Jansen, Lubomír Tichý, Milan Chytrý, Irena Axmanová, Koenraad Van Meerbeek, Michael Nobis and Elisabeth Hüllbusch. Most likely Olha Chusova will do a one-year Postdoc for the paper “EIVE 2.0” in the group of J.D. Further analytical experts might be involved, in particular if competent persons from the consortium (<https://www.researchgate.net/publication/346443556> and opt-in authors from the EVA databases) and members of the Vegetation Science Group at Masaryk University offer their help. The Core Team will ensure that no misuse of data by any data analysts is happening.

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

2022-2024

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

All

- 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?

No

- Vegetation types needed (syntaxa):



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All

- Other data selection criteria:

Plots smaller than 1000 m<sup>2</sup> (if plot size is indicated; if it is not indicated, the plot should be included)

- Envisaged publications:

(1) Paper (a) and a series of papers (b) described above, all published in international journals.  
(2) Online publication of freely available database, documented workflows and R scripts.

- 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.

The derived products (European ecological indicator value system) and R scripts will be published open access, but no plot data will be published.

- 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 for 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 from 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.

No

- 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.



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Co-authorship of individual papers that will use the EVA data will be offered to representatives of all EVA databases who want to contribute intellectually to the preparation of papers and datasets.

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

The applicants are Custodians and Deputy Custodians of seven EVA databases (Nordic-Baltic Grassland Vegetation Database - NBGVD, GrassVeg.DE, VegMV, vegetweb, VegetWeb – Tüxen, Czech National Phytosociological Databases, Masaryk University's Gap-Filling Database of European Vegetation) and data contributors to various other EVA databases (BDGD, RGD, UGD).

- We agree with the terms of EVA Data Property and Governance Rules as approved on 26 May 2012 (<http://euroveg.org/download/eva-rules.pdf>).
- In any result obtained based on this data, I will cite the EVA report paper (Chytrý et al. 2016; <https://doi.org/10.1111/avsc.12191>). 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.

Wädenswil, Rostock and Brno, 10 February 2022

Jürgen Dengler, Florian Jansen, Lubomír Tichý and Milan Chytrý