



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:

Stephan Kambach, Helge Bruelheide, Milan Chytrý

- Applicant's institutional address:

Institute of Biology/Geobotany and Botanical Garden, Martin Luther University Halle-Wittenberg, Große Steinstraße 79/80, 06108 Halle, Germany

- Applicant's e-mail:

stephan.kambach@gmail.com

- Project title:

FeedBaCks - Feedbacks between Biodiversity and Climate

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

Aim: In this project, we will investigate the relationships between climate (change) and biodiversity (change) on a regional to European scale. Our focus is on the feedback effects of biodiversity change on the local and regional climate regime. We aim at better understanding how these biodiversity-climate feedbacks can be used to mitigate negative effects of the ongoing climate change in Europe.

Methods: We will apply the state-of-the-art climate simulations and develop dynamic vegetation models (considering niche, dispersal and competition) in order to predict the climate, vegetation and its relationships from very fine to the European scales. To support these climate-biodiversity feedback models, we will use the EUNIS Habitat Classification and modify it for the purposes of this project to match the most appropriate scale to model the biodiversity component and the plant traits that influence the climate regime. The relevant functional traits will be collated from the TRY plant trait database as well as the published literature and other databses. Finally, the outputs from the climate-biodiversity feedback models will be used to predict scenarios of future vegetation change in Europe and to inform relevant stakeholders on the benefits of biodiversity for natures contributions to people across Europe.

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

This project will be executed as a part of the Biodiversa FeedBaCks project in a collaboration between the lab of Helge Bruelheide (head of the Geobotany Group of the Martin Luther University Halle-Wittenberg) and the lab of Milan Chytrý (head of the the Vegetation Science Group of the Masaryk University Brno). Further partners of the biodiversity part of the FeedBaCks project include specialists in climate modelling, biodiversity modelling and dynamic vegetation modelling, namely Niklaus Zimmermann



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and Dirk Karger (WSL Birmensdorf), Willfried Thuiller (Université Grenoble Alpes) and Thomas Hickler (Senckenberg Research Institute, Frankfurt).

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

2023 to 2024.

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

All vegetation plots located in Europe (excluding Anatolia, Cyprus and Macaronesia).

- 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?

Plot should preferably be georeferenced but this is not a criterion for exclusion.

- Vegetation types needed (syntaxa):

All

- Other data selection criteria:

- Envisaged publications:

2-5 papers in international journals dealing with optimized vegetation classification, functional classification, diversity patterns in different growth forms or vegetation types, spatial distribution of climate-relevant plant traits and on feedback effects of biodiversity on the climate regime.

- **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.

We will not store the original relevé data. We may store a reduced dataset with coarse grid-cell coordinates and/or species identities replaced by codes. We may also store derived products such as coordinates of the mean species trait values. In any other cases, we would ask all data contributors for consent to deposit a specific reduced dataset.

- **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



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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.

Yes, all TRY data contributors will be informed together with an invitation of a potential co-authorship in papers that will use this dataset.

- 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 project partner provided the custodian expresses interest in this project by filling in the EVA online form. This person will be informed about the progress of the project. Prior to the finalization of the analyses, one representative of those databases that contributed > 2% of the final number of plots will be offered a co-authorship. It is up to the discretion of the first author to offer co-authorships to databases that contributed less data. Each database can have a different representative on different papers resulting from this project, depending on the specific expertise of different people in the database team and their willingness to actively contribute to the respective papers. Co-authors will be asked to provide intellectual input in the analyses, interpretation and the manuscript at the appropriate stage. All data contributors will be acknowledged in the resulting publications.

- 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.

Helge Bruelheide is the Deputy Custodian of the GVRD Vegetation Reference Database Halle (EU-DE-014) and Milan Chytrý is the Custodian of the Czech National Phytosociological Database (EU-CZ-001).

- 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>).
- 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).



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- 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.

Halle (Germany), Brno (Czech Republic)

March 15, 2021

Stephan Kambach, Helge Bruelheide, Milan Chytrý