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:
  Shuya Fan
- Applicant's institutional address:
  University of Vienna
- Applicant's e-mail:
  shuya_fan@foxmail.com
- Project title:
  Thermophilization of European plant communities by alien species spread
- Are you asking for core EVA data (non-repeated vegetation surveys) or for ReSurveyEurope data (repeated vegetation surveys)?
  core EVA data + ReSurveyEurope
- Brief description of the aims and methods of the study:

  We will analyze species composition and abundance data from resurveyed communities in ReSurveyEurope to track whether communities are undergoing thermophilization and to determine the role of alien species in driving this process. Specifically, we will use species distribution data from EVA to obtain the geographic distribution (latitude, longitude, and sampling time) of each species in the ReSurveyEurope dataset, allowing us to calculate its species' thermal optimal index. This will enable us to quantify changes in the community temperature index of ReSurveyEurope plots over time and compare thermophilization rates across different habitat types (level-1 EUNIS). To explicitly assess the impact of alien species on community warming, we will use species origin data from POWO and the GloNAF database to distinguish native and alien species in each plot and quantify their respective contributions to thermophilization. Additionally, we will integrate species trait data from TRY, focusing on traits related to colonization, extinction, and growth, to determine whether specific functional traits mediate the effects of alien species on community thermophilization and how these effects vary across habitat types.

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

Prof. Dr. Franz Essl, Dr. Bernd Lenzner, Dr. Michael Glaser, and potentially some other members of the Division of BioInvasions, Global Change & Macroecology at University of Vienna

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

  By the end of 2026

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

  Europe (excluding Anatolia, Russia, Georgia, Armenia, Azerbaijan, 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?

  Plots need to be georeferenced, and all plots will be included regardless of coordinate uncertainty, including those lacking coordinate uncertainty data. The information on coordinate uncertainty will be retained.

- Vegetation types needed (syntaxa):

  All

- Other data selection criteria:

  No

- Envisaged publications:

  Our goal is to publish a paper on the thermophilization of European vegetation, followed by another paper on the impact of alien species on community thermophilization.

- 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 share or publish the original relevé data. However, to ensure full reproducibility, we will publish a dataset containing the following information for each plot: species richness, longitude, latitude, year of sampling, plot size (m^2), and EUNIS habitat type. This dataset includes only essential information for reproducibility, and no additional data will be shared. If needed, we will discuss with the custodians the possibility of excluding certain data for specific reasons.

- 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. We want to include the following traits: Life form, Leaf area, Specific leaf area, Leaf dry matter content, Leaf C, Leaf N, Leaf P, Leaf N per area, Leaf N:P ratio, Seed mass, Seed length, Seed number per reproductive unit, Dispersal unit length, Plant height, and Stem specific density. Additionally, we want to include information on whether each trait value is based on direct measurement or imputation.

- 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: https://www.iavs.org/page/governance_code-of-proffesional-ethics). 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.

  A representative from each TRY, ReSurveyEurope, and core EVA database will be considered as a co-author if their contribution exceeds 0.1% (ReSurveyEurope) or 1% (core EVA and TRY) of the total plot count in the final dataset. Representatives contributing smaller datasets may also be invited as co-authors if their data originate from biogeographically important regions not covered by other databases, if they provide interest by completing the EVA online form; the final selection is being done by the project applicants. Co-authors will be kept informed about the project's progress and invited to provide intellectual contributions, such as assisting in result interpretation and/or actively participating in manuscript editing and writing. All data contributors not included as co-authors will be acknowledged in the publications.

- 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 Prof. Franz Essl, the Custodian of the AT_Grassland_FE (AT_0001)

- 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.

Anhui, 10/03/2025

Shuya Fan

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