



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:

Martin Jung

- Applicant's institutional address:

International Institute for Applied Systems Analysis (IIASA) | Schlossplatz 1 | A-2361
Laxenburg, Austria

- Applicant's e-mail:

Jung@iiasa.ac.at

- Project title:

INtegrated Spatial PlannIng across REalms for biodiversity conservation and human
development in a context of change (INSPIRE)

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

Core EVA data

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

Aims:

In the INSPIRE project we are trying to identify conservation and restoration opportunities for case studies across Europe. In one case study on the Austrian/Hungarian border we would like to spatially predict the occurrence of key vegetation types using high-to-medium resolved remote sensing imagery. For this purpose I am requesting access to relevant core EVA data to be utilized – among other vegetation occurrence data – as training data used in a machine learning model.

Methods:

We will collate and prepare observational records of plant occurrence and vegetation types, and harmonize them into a common thematic legend following the EUNIS habitat classification system, potentially with slight adaptation relevant to the study region. Observational records will be obtained from GBIF, iNaturalist and Art 17 reporting data plus EVA when made available. We will combine these vegetation type data with high-to-medium resolution satellite imagery (Sentinel 1/2B) and use state of the art machine learning approaches (Deep Convolutional Neural Network) to predict the occurrence of vegetation types in the study region.

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

Only me (Martin Jung) will handle and analyse the EVA data.

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

I expect that results will be available by mid-end 2025, after which a manuscript will be prepared.

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

I would like to request EVA surveys from Austria and Hungary, specifically from the Austrian state of Burgenland and the Hungarian state of Győr-Moson-Sopron County. Here EVA records from the wider Neusiedl area are requested:

This includes a boundary box roughly covering roughly the following area:

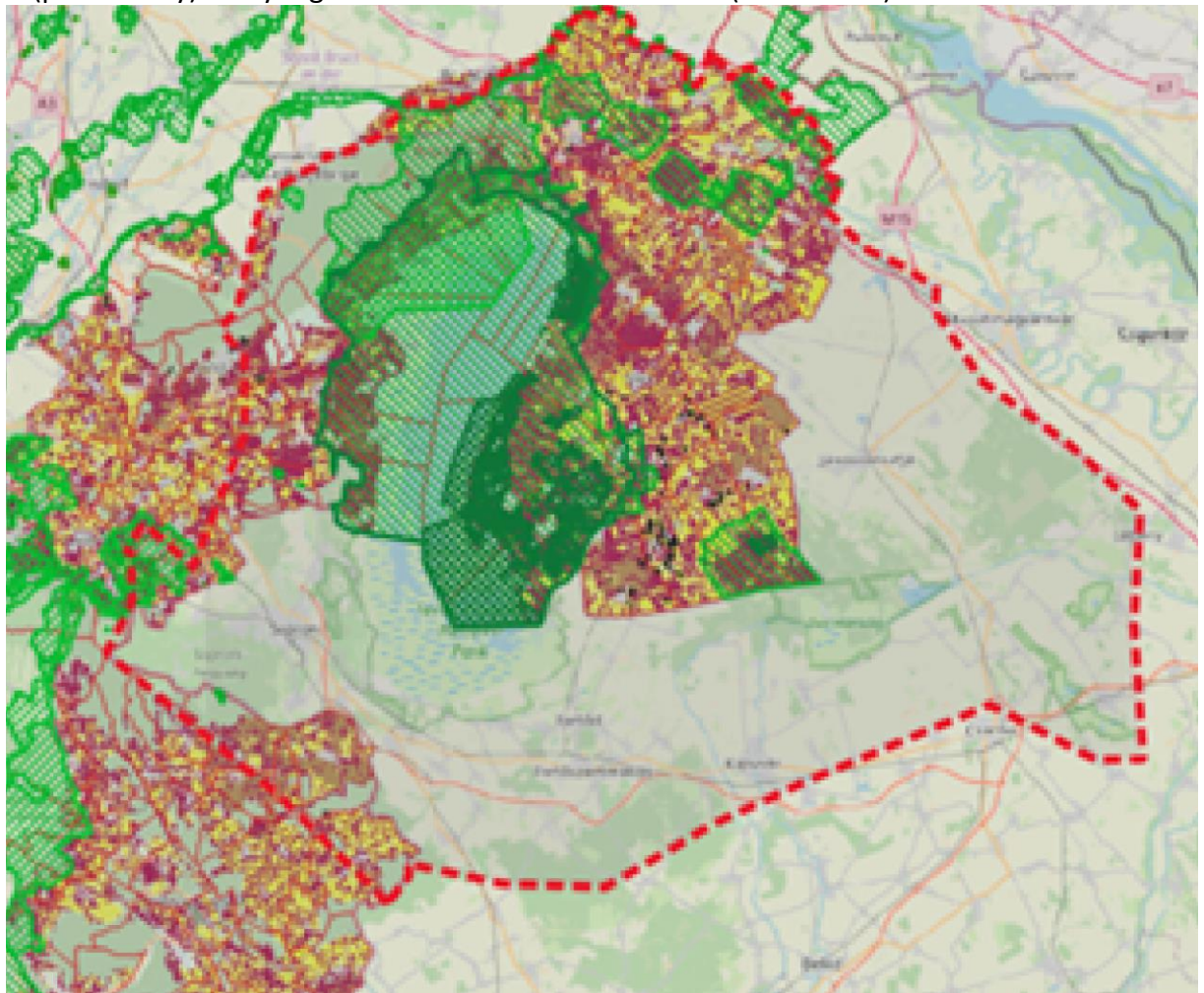
"xmin" = 16.42212

"ymin" = 47.58438

"xmax" = 17.41739

"ymax" = 48.04732

A (preliminary) study region outline can be found below (red dashed).





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- 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 georeferenced only. In terms of accuracy any plot location with equal or less than 1km would be requested (or plots where such accuracy can be reasonably assumed).

- Vegetation types needed (syntaxa):

All

- Other data selection criteria:

None

- Envisaged publications:

A manuscript describing the modelling framework, remote sensing processing and integration of EVA data with other vegetation information, as well as the spatial prediction of vegetation types is envisaged. The manuscript will likely target a remote-sensing and ecological modelling journal (for example Remote Sensing in Ecology and Conservation or similar).

- 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.

I will not redistribute or upload the original EVA data anywhere. If for some reason the raw input data is requested to be released as part of a journal publication, all species names will be anonymized with codes and exact plot coordinates coarsened. I will get in contact with the data custodians in this and any other situations where such a raw dataset deposition is demanded by a third party.

For the envisaged publication arising from the use of this data only a spatial prediction (e.g. a thematic map) will be the primary output.

- 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 e.g. 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



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- 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.

I will be happy to offer co-authorship to any major data contributor for the resulting vegetation mapping. Besides data contribution I would also be very interested in any qualitative feedbacks on the results of the prediction.

- 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.

I have not contributed to any EVA database.
However PD Dr. Wolfgang Willner (Austrian vegetation database) has agreed to support this data request.

- 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.

Laxenburg, 14/04/2024

Martin Jung



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