European Vegetation Archive

# Data Request Form

To obtain data from the European Vegetation Archive (EVA), please first make an enquiry to 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:

  Veronika Kalusová[1], Milan Chytrý[1]

- Applicant's institutional address:

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- Project title:

  Alien plant invasions in European scrub vegetation

- Brief description of aims and methods of the study:

  The human-related spread of alien plants has serious environmental and socio-economic impacts. One of the most important goals of invasion biology is to identify habitats that are most threatened by invasive plants, and mechanisms responsible for their high vulnerability. We would like to study a wide range of European scrub and dwarf-shrub vegetation to describe general patterns of habitat invasion at the continental scale. This project will extend previous study exploring invasion patterns in European forests (Wagner et al.) based on EVA data and continuing EVA project on invasions in European grasslands (Axmanová et al.). Studies across different European vegetation types based on available EVA data from various European countries bring important insights into general patterns and mechanisms of plant invasions across the European continent. Despite scrub vegetation represents an important component of the European landscape, it has not received yet as much attention as forests or grasslands, therefore more detailed analysis is needed to disentangle its role in plant invasions.

  In this project we would like to (i) find which scrub and dwarf-shrub habitats in Europe have high or low levels of invasions, (ii) identify which alien species are the most successful invaders in these habitats, (iii) show how habitat levels of invasion and invaders identity change among different European countries and along major environmental gradients, (iv) analyse which environmental factors can be responsible for the observed invasion patterns. To accomplish our tasks, we will use relevés stored in the European Vegetation Archives and combine them with available alien species checklists (e.g. DAISIE). We will apply R based descriptive and modelling statistics and GIS geographical mapping tools to perform intended invasion patterns analyses.

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

  Data analyses, presentation and interpretation of obtained results and manuscript writing will be led by Veronika Kalusová, PhD, a member of the team of the Czech

National Phytosociological Database at Masaryk University, Brno. EVA database managers or experts in data analysis or plant taxonomy from the Vegetation Science Group of Masaryk University can be involved further if needed. Confidentiality in data use will be guaranteed.

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

  2020 (submission of the first manuscript)

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

  Geographically delimited Europe (excluding northern Africa, Near East, Anatolia, Cyprus, Greenland, Kazakhstan, Georgia, Armenia and Azerbaijan)

- 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, all data available will be used, but for GIS-based analyses the dataset can be further filtered.

- Vegetation types needed (syntaxa):

  Scrub and dwarf-shrub vegetation (all S-code EUNIS habitats following the expert system, ver. from 06/2019) including coastal scrub and dwarf-shrub vegetation (N18, N19, N1A , N1B, N1C EUNIS habitat codes based on the expert system, ver. from 06/2019)

- Other data selection criteria:

  No

- Envisaged publications:

  1-2 papers in international journals focused on invasion biology, ecology or vegetation science

- 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. unique vegetation types, under-represented geographic areas) or make up more than 10% of the final dataset (5% threshold can be

considered too). These database representatives should be experts in the topic of the project (they do not need to be the custodians or deputy custodians) and they 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.

Veronika Kalusová and Milan Chytrý will be the lead authors of the publications. Data providers will be informed about the major steps in the study concepts and data analyses done. Co-authorships will be offered to a representative of each database that will be represented by at least 5 % of relevés included in the final analysis, i.e. after final stratified selection of relevés from the basic data set, or fewer in the case of regions and vegetation types with a general lack of data. Persons with significant contribution to the data analysis or providers of additional data such as alien checklists or GIS data may be invited as co-authors too. Following the EVA rules and established practices, we expect co-authorship to be associated with an intellectual contribution to the manuscript, not only data provision.

- 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.

Veronika Kalusová and Milan Chytrý are members of the team of the Czech National Phytosociological Database (EU-CZ-001) at Masaryk University, Brno

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 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.

Brno, 5 August, 2019

Veronika Kalusová, Milan Chytrý