European Vegetation Archive
Data Request Form

To obtain data from the European Vegetation Archive (EVA), including the ReSurveyEurope [(the Bern Convention on endangered nat...)](#) 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:

  > Prof. Dr. Sophie Karrenberg, PhD student Hanna Danko

- Applicant's institutional address:

  > Department of Ecology and Genetics, Uppsala University, Sweden

- Applicant's e-mail:

  > sophie.karrenberg@ebc.uu.se, hanna.danko@ebc.uu.se

- Project title:

  > Distribution modeling of dry grasslands and its species

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

  > We ask for both core EVA data and ReSurveyEurope data.

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

  > **Background & Aims.** Dry grasslands (*Koelerio-Corynephoretea* s.l., including *Sedo-Scleranthetea* and *Festuco-Brometea*) are widespread across Europe, extending from sub-Mediterranean to boreal regions. These ecosystems support a rich diversity of specialized vascular plants, bryophytes, and lichens (Dengler et al., 2016). Many of these habitats are considered highly threatened and are of significant conservation concern, as they are facing a dramatic decline across Europe and most being included in the Natura 2000 appendices of the European Union (Dengler et al. 2016; Janssen et al. 2016). Biodiversity is significantly affected by ongoing climate change, and the range shifts depend on the availability of suitable habitats. To understand the dynamics of range in dry grasslands, we aim to conduct distribution modeling for dry grassland habitats and several of its species across Europe.
  >
  > **Methods.** We are going to use plot coordinates of already assigned habitats along with the citizen science species occurrences data from GBIF and, probably, species

occurrences from EVA databases, and contemporary climate parameters covering a broad latitudinal range and future climate models scenario to assess the future distribution of suitable conditions. Most likely, we are going to focus on recent data (after 2000), but this depends on the data available.

Our methodological approach integrates ecological niche modeling with spatial environmental data under both present and future conditions. This will provide insights into the resilience of sandy dry grasslands and inform conservation planning in the face of climate change.

References:

Dengler, J., Biurrun, I., Baumann, E., & Weiser, F. (2016). Scale-dependent plant diversity in Palaearctic grasslands: a comparative overview. Bulletin of the Eurasian Dry Grassland Group, 31, 12–26.

Janssen, J.A.M., Rodwell, J.S., Garcia Criado, M., Gubbay, S., Haynes, T., Nieto, A., Sanders, N., Landucci, F., Loidi, J., Ssymank, A., Tahvanainen, T., Valderrabano, M., Acosta, A., Aronsson, M., Arts, G., Attorre, F., Bergmeier, E., Bijlsma, R.-J., Bioret, F., Biţă-Nicolae, C., Biurrun, I., Calix, M., Capelo, J., Čarni, A., Chytrý, M., Dengler, J., Dimopoulos, P., Essl, F., Gardfjell, H., Gigante, D., Giusso del Galdo, G., Hajek, M., Jansen, F., Jansen, J., Kapfer, J., Mickolajczak, A., Molina, J.A., Molnar, Z., Pater-noster, D., Piernik, A., Poulin, B., Renaux, B., Schaminee, J.H.J., Šumberova, K., Toi-vonen, H., Tonteri, T., Tsiripidis, I., Tzonev, R. & Valachovič, M. 2016. European Red List of Habitats – Part 2. Terrestrial and freshwater habitats. European Union, Lux-embourg, LU: 38 p.

Muscarella, Robert, Peter J. Galante, Mariano Soley-Guardia, Robert A. Boria, Jamie M. Kass, María Uriarte, and Robert P. Anderson. 2014. ENMeval: An R Package for Conducting Spatially Independent Evaluations and Estimating Optimal Model Complexity for Maxent Ecological Niche Models. Methods in Ecology and Evolution 5 (11): 1198–1205.

Merow, Cory, Matthew J. Smith, and John A. Silander Jr. 2013. A Practical Guide to MaxEnt for Modeling Species' Distributions: What It Does, and Why Inputs and Settings Matter. Ecography 36 (10): 1058–69.

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

Most likely, **Hanna Danko** will lead one paper as part of her PhD under the supervision of **Sophie Karrenberg** (Uppsala).

We welcome **other members of the co-author team** to be established to actively join the discussion.

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

We estimate that a paper will be delivered at the end of 2025/early 2026.
Further papers are possible, depending mainly on the ideas and the involvement of active co-authors.

- 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?

Yes, georeferencing is essential for this project If possible, we ask that coordinate uncertainty is provided with the data.

- Vegetation types needed (syntaxa):

We ask for data on vegetation types of dry grasslands (anthropogenic, forest edges and successional stages), sand vegetation *Koelerio-Corynephoretea* and *Sedo-Scleranthetea* sensu Mucina et al. (2016), *Festuco-Brometea* and *Artemisietea vulgaris* according to the following criteria:

EITHER assignment to one of the following **EUNIS habitat types**:

N15, N16, N17, R11, R12, R13, R17, R1G, R1N, R1P, R1Q, R1R, R1S, MA MA211 MA221 MA222 MA223 MA224 MA225 MA232 MA241 MA251 MA252 MA253 N N11] N12 N13 N14 N15 N16 N17 N18 N19 N1A N1B N1D N1E N1F N1G N1H N1J N21 N31 N32 N34 N35 P Pa Pb Pf Pg Ph Q11 Q12 Q21 Q22 Q24 Q25 Q3 Q41 Q42 Q43 Q45 Q51 Q52 Q53 Q54 Q61 Q62 Q63 Qa Qb R R11 R12 R13 R14 R15 R16 R17 R18 R19 R1A R1B R1C R1D R1E R1F R1G R1H R1J R1K R1M R1N R1P R1Q R1R R1S R21 R22 R23 R24 R31 R32 R33 R34 R35 R36 R37 R41 R42 R43 R44 R45 R51 R52 R54 R55 R56 R57 R62 R63 R64 R65 S11 S12 S21 S22 S23 S24 S25 S26 S31 S32 S33 S34 S35 S36 S37 S38 S41 S42 S51 S52 S53 S54 S61 S62 S63 S64 S65 S66 S67 S68 S71 S72 S73 S74 S75 S81 S91 S92 S93 S94 Sa Sb T T11 T12 T13 T14 T15 T16 T17 T18 T19 T1A T1B T1C T1D T1E T1F T1H T21 T24 T27 T31 T32 T33 T34] T35 T36 T37 T38 T39 T3A T3C T3D T3F T3G T3J T3K T3M U U22 U23 U24 U25 U26 U27 U28 U29 U2A U32 U33 U34 U36 U37 U38 U3A U71 U72 V V11 V12 V13 V15 V32 V33 V34 V35 V37 V38 V39

OR presence of **at least three species of the following list**:
Corynephorus canescens, Koeleria glauca, Thymus serpyllum, Brachypodium pinnatum, Jurinea cyanoides, Festuca valesiaca, Stipa sp.*, Agrostis vinealis, Ceratodon purpureus, Calluna vulgaris, Nardus stricta*

> The exact application of these criteria (e.g. superior units or synonyms) will be discussed and agreed prior to data delivery with Ilona Knollová

- Other data selection criteria:

> We ask for all occurrence data (i.e., species observations at a location in time), including from EVA Core and ReSurveyEurope, as defined above. We do not have a date range (i.e., data from any year). However, most likely, for further analysis, we are going to focus on recent data (after 2000) based on data availability.

- Envisaged publications:

> One or several papers in international journals

- 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.

> Our target journals do not have such requirements yet. Thus, we assume that it will be sufficient to cite the retrieved EVA dataset with its DOI.

- 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.

> 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 stages. The project leader should also make final co-authorship arrangements based on the real input of the individual contributors.

> Generally, we welcome one active co-author from each EVA dataset that contributes at least 1% of the suitable records for this analysis.
> Further co-authors can be accepted if they contribute significantly to data preparation and analysis or if they contribute relevant new datasets that are not yet in EVA.

- 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.

> We have not actively contributed to EVA databases, but we are very willing to collaborate with EVA.
> Our supporting custodian is Jürgen Dengler, who is Custodian or Deputy Custodian of several EVA databases (NGBVD, GrassVeg.DE, GrassPlot Europe) and contributor to many others (e.g. BGD, RGD, UGD, VEGMV)

- 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.

Uppsala, 16.04.2025

Hanna Danko, Sophie Karrenberg