



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:

Alessandro Bricca, Gianmaria Bonari

- Applicant's institutional address:

Faculty of Science and Technology, Free University of Bozen-Bolzano, Piazza Università 5,
38100 Bolzano, Italy

- Applicant's e-mail:

alessandro.bricca@unibz.it

- Project title:

Investigating the effects of ecological and historical factors on understory diversity of
Mediterranean mountain *Pinus nigra* forests: natural and non-natural forests

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

The aims of this project are to evaluate the effect of climatic variables (temperature, precipitation) and elevation on the three diversity facets, namely, taxonomical, functional and phylogenetical diversity of *Pinus nigra* forests. Also, we want to investigate if the relationships are consistent between understories of natural and non-natural forests. In addition, we want to quantify the influence of distance of current plots from refugial areas on the same three diversity facets for natural and non-natural pine forests.

Data will be analyzed with the use of boosted regression trees to test the relative influence of environmental variables on diversity indices and structural equation models to quantify the causal relationship between environmental variables on diversity indices. In both cases, the potential influence of spatial autocorrelation will be accounted for.

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

Data analysis, interpretation and paper writing in this project will be led by Alessandro Bricca, a postdoc at the Free University of Bozen-Bolzano, with the supervision of Gianmaria Bonari and Borja Jiménez-Alfaro. Milan Chytrý, Kryštof Chytrý and Josep Padullés Cubino will be also involved. Possibly other members of the Ecosystem research, restoration ecology and nature conservation WG of the Free University of Bozen-Bolzano and of the Vegetation Science Group of Masaryk University will be involved. Further, some members of the EVA Taxonomic Advisory Board, EVA Coordinating Board may be involved in the analysis if needed. Confidentiality in data use will be guaranteed.



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

2023 (manuscript submission)

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

All *Pinus nigra* s.l. plots (incl. plantations), excluding Macaronesia, Fennoscandia and Russia.

- 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, 10 km.

- Vegetation types needed (syntaxa):

-

- Other data selection criteria:

Relevés including these taxa with a cover >14%

- Pinus nigra
- Pinus maritima (=Pinus nigra)
- Pinus nigra subsp. dalmatica
- Pinus nigra subsp. laricio
- Pinus nigra subsp. nigra
- Pinus nigra subsp. pallasiana
- Pinus nigra subsp. salzmannii
- Pinus nigricans (= Pinus nigra ssp. nigra)
- Pinus laricio (= Pinus nigra ssp. laricio (Poiret) Maire)
- Pinus pallasiana (= Pinus nigra ssp. pallasiana (Lamb.) Holmboe)
- Pinus salzmannii (= Pinus nigra ssp. salzmannii (Dunal) Franco)
- Pinus dalmatica
- Pinus pyrenaica (= Pinus nigra ssp. salzmannii (Dunal) Franco)
- Pinus banatica
- Pinus clusiana (= Pinus nigra ssp. salzmannii (Dunal) Franco))

- Envisaged publications:

1 paper in a international scientific journal

- 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



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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.

In case of such journal, we will deposit a reduced dataset where species names are replaced with codes (numbers) and with only P/A data.

- 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.

Yes – Leaf Area, Specific leaf area, Leaf dry matter content, Seed mass, Plant height, Growth forms (Tree, Shrub, Dwarf-shrub, Herb)

- 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.

Alessandro Bricca, with contributions from Gianmaria Bonari, Borja Jiménez-Alfaro, Milan Chytrý, and Josep Padullés Cubino, will be the lead author of the planned publications. Co-authorship will be offered to a representative of each database who will register for this project in the EVA online form and provides at least 3% of relevés included in the final analysis (i.e. after stratified selection from the basic data sets) or fewer for databases that provided particularly important data from vegetation types or regions with general lack of data. Further, persons with significant contribution to data analysis (see above) or providers or analysts of other data may be invited as co-authors. Following the EVA Rules and established practices, we expect co-authorship to be associated with intellectual contribution to the paper, not merely with data provision. In particular, we would like to ask the potential co-authors to help us with filling the regional gaps in the datasets and to provide regional knowledge to the interpretations of vegetation patterns obtained from the continental-scale analyses.

- 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.

Gianmaria Bonari is the custodian of CircumMed Forest Database



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- 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).
- 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.

[Bolzano, 11/3/2022]

Alessandro Bricca, Gianmaria Bonari