



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:

Marta Carboni

- Applicant's institutional address:

Department of Sciences, University Roma TRE, Viale G. Marconi 446, Rome 00146, Italy

- Applicant's e-mail:

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- Project title:

Plant invasions in the Mediterranean basin

- Brief description of aims and methods of the study:

The Mediterranean Basin has been historically highly subject to biological invasions due to its suitable conditions, high population density and numerous transportation routes. It is also a biodiversity hotspot at the global level. Predicting and mitigating future plant invasions in this area is possible on large biogeographic scales and for many species by relying on Species Distribution Models (SDMs). Our project will be a comprehensive assessment of plant invasion risks in the Mediterranean basin, combining SDMs with multiple data sources. The first step will be to identify and characterize the most and least successful alien species from the potential alien species pool. Data from EVA will be merged with other available information on species occurrences in Europe (eg. GBIF data) to obtain comprehensive information on alien plant distributions that can be used for assessing invasion success and for further modelling. The second step will be to fit SDMs accounting simultaneously for environmental variation and possible human introduction sources, obtained from climate grids and land-use maps available online. By collecting trait information from the TRY database and modelling multiple alien species with distinct traits, it will also be possible to assess how functional characteristics influence invader success and distribution in the area. Finally spatial projections and future scenario analysis will provide guidelines for screening and invasion management in the future. Overall this work will improve our understanding of plant invasions and predict invasion risks for many species at a broad biogeographic scale and under different scenarios of future climate change.

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

Data editing and analysis will be led by Marta Carboni and a PhD student to be hired on this project at the University Roma TRE (co-supervised with Alicia Acosta). Collaboration on data analysis is envisaged with partners in Canada (Laura Pollock), Czech Republic (Milan Chytrý, Marco Malavasi) and France (Wilfried Thuiller, Laure Gallien)



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

12-36 months

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

Mediterranean region of Europe (including Portugal, Spain, France, Italy, Croatia, Bosnia and Hercegovina, Montenegro, Albania and Greece including islands), Anatolia, Near East and North Africa.

- 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, plots should have Geographic coordinates. This is a broad-scale study, so accuracy of 10km would be acceptable

- Vegetation types needed (syntaxa):

All terrestrial vegetation

- Other data selection criteria:

- Envisaged publications:

At least 1 publication on identification of invasion hotspots in the Mediterranean basin in the short term and 1 publication on projected shifts in invasions under climate change scenarios in a later phase (36 months).

- 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 (we might need trait data for a part of the project, but we'll ask only for the data for the alien species once these have been selected, so it is perhaps better to file in a direct request to TRY at a later stage)

- 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



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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.

Database custodians will be informed about the progress of the study once first results will be there. Those custodians or other representatives of the EVA databases that contributed more than 10% of the dataset and/or who are interested in plant invasions can opt-in for co-authorship provided they will further participate in data-handling, taxonomic standardization or other methodological and conceptual aspects of the project. The co-authorship will be negotiated on a case-by-case basis.

- 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.

The project is supported and recommended by Milan Chytrý

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.

Rome, 02/08/2019

Marta Carboni