



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 Milan Chytrý (chytry@sci.muni.cz) or another member of the EVA Coordinating Board.

- Applicant's name:

Úna FitzPatrick

- Applicant's institutional address:

National Biodiversity Data Centre, Ireland

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- Project title:

Predicting plant demography across geographic ranges: what can we infer from correlative distribution models?

- Brief description of aims and methods of the study:

Long-term population performance is potentially one of the most powerful mechanistic predictor of species' distributions. However, the environmental correlates of demographic variation across species' geographic ranges are still poorly understood. A general expectation stemming from niche theory is that the position within the species' ecological niche space is a major driver of population fitness and ultimately shapes species' geographic distribution patterns.

In this project we are taking a multispecies approach to test whether spatiotemporal variation of key demographic rates can be predicted from the position of populations within the species' ecological niche space. Demographic metrics are extracted from projection matrices of populations available in the COMPADRE Plant Matrix Database. The environmental conditions experienced by each population are extracted from predicted habitat suitability maps obtained from correlative distribution models.

However, one of the major weaknesses of correlative distribution models is the poor quality of species' occurrence data. The most frequently used global species occurrence database for comparative studies is GBIF (Global Biodiversity Information Facility – www.gbif.org). While freely available for download and use for research purposes, GBIF locality data often do not cover the whole known range of species, and independent databases are needed to fill in the blank areas.

The proposed study will compare distribution maps of the species listed below with GBIF data alone to distribution maps produced with GBIF, EVA and other independent Herbaria sources in Europe. Significantly improved predictions are expected from high quality input data that incorporate EVA.

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



Data Request Form

Anna M Csergő, Antoine Guisan, Olivier Broennimann, Yvonne Buckley

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

2015 February

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

Whole area covered in EVA

- Vegetation types needed (syntaxa):

NA

- Other data selection criteria:

Geographic coordinates of relevés in which the following species occur (we understand some of the species have 0 data):

Actaea spicata
Adenocarpus aureus gibbsianus
Agrimonia eupatoria
Agropyron cristatum
Alliaria petiolata
Allium sativum
Alnus incana rugosa
Anarrhinum fruticosum
Androsace elongata
Anthyllis vulneraria
Antirrhinum molle lopesianum
Arenaria grandiflora bolosii
Arenaria serpyllifolia
Armeria merinoi
Artemisia genipi
Aster amellus
Aster pyrenaicus
Astragalus tremolsianus
Brassica insularis
Carex bigelowii
Carex humilis
Cheirolophus metlesicsii
Cirsium dissectum
Cirsium palustre
Cirsium vulgare
Corallorhiza trifida
Cypripedium calceolus
Digitalis purpurea



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Dorycnium spectabile
Echinopartum ibericum algibicum
Epilobium latifolium
Erodium paularense
Eryngium alpinum
Eryngium maritimum
Euphorbia fontqueriana
Gentiana pneumonanthe
Geum reptans
Geum rivale
Helianthemum juliae
Helianthemum polygonoides
Helianthemum teneriffae
Herminium monorchis
Jurinea fontqueri
Kosteletzkya pentacarpos
Laserpitium longiradium
Lathyrus vernus
Limonium erectum
Molinia caerulea
Myosotis ramosissima
Orchis purpurea
Oxalis acetosella
Oxytropis jabalambrensis
Parolinia glabriuscula
Pinus nigra
Plantago lanceolata
Poa alpina
Potentilla anserina
Primula elatior
Primula veris
Primula vulgaris
Pseudomisopates rivas-martinezii
Ramonda myconi
Rhododendron ponticum
Rosmarinus tomentosus
Rubus saxatilis
Santolina melidensis
Saponaria bellidifolia
Sarcocapnos enneaphylla
Sarcocapnos pulcherrima
Saussurea medusa
Saxifraga aizoides
Saxifraga cotyledon



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Saxifraga tridactylites
Stipa calamagrostis
Succisa pratensis
Thymus vulgaris vulgaris
Tragopogon pratensis
Vella pseudocytisus pseudocytisus
Verbascum fontqueri
Veronica arvensis
Vitaliana primuliflora

- Envisaged publications:

Two papers to be submitted to Ecology Letters

- Specification of the co-authorship arrangements in publications based on the requested data (e.g. the extent of possible involvement of the original data providers, or of EVA data managers if extra work for this project is needed from them):

- Coauthorship is offered to all data custodians whose data will be useful to our study, and who will also contribute to the writing of the manuscript. Data contributors will be given the opportunity to read a draft of the manuscript and decide whether or not they want to contribute. As per normal authorship rules, we expect all coauthors to make an intellectual contribution to the manuscript. The author would need to commit to responding to requests to review and comment on the manuscript at least once and within a reasonable time frame (2 weeks).
- We believe strongly in the replicability of analyses, and publishing scripts and data that will enable others to re-run our analyses is important to us. We expect data providers to agree to publish the occurrence data used in the manuscript when the manuscript is accepted for publication (on DRYAD for example, or as per coauthors' suggestion) (except sensitive data e.g., rare species, for which coordinates will be withheld). Importantly, we would only publish solely the occurrence of the requested species (not vegetation data). The EVA data provided will be joined to our existing dataset (GBIF, local Herbaria, etc.) and the source of data will be fully and thoroughly acknowledged.

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>).

12th November 2014

Úna FitzPatrick