European Vegetation Survey

SAPIENZA UNIVERSITÀ DI ROMA

NATIONWIDE VEGETATION DATABASE SUPPORTING EARTH OBSERVATION ANALYSIS FOR HABITAT SPATIAL MODELLING

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Habitat and Biodiversity databases

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Advances in plant community ecology
IAVS

REPORT | Open Access

sPlot – A new tool for global vegetation analyses

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Abstract

Aims

Vegetation-plot records provide information on the presence and cover or abundance of plants co-occurring in the same community. Vegetation-plot data are spread across research groups, environmental agencies and biodiversity research centers and, thus, are rarely accessible at continental or global scales. Here we present the sPlot database, which collates vegetation plots worldwide to allow for the exploration of global patterns in taxonomic, functional and phylogenetic diversity at the plant community level.

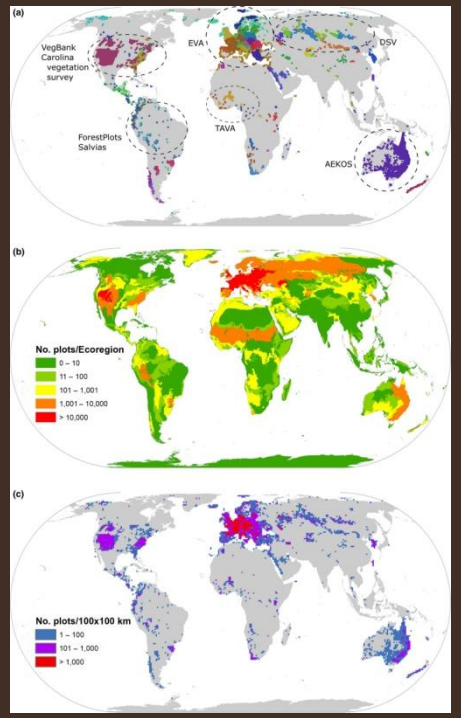
Results

sPlot version 2.1 contains records from 1,121,244 vegetation plots, which comprise 23,586,216 records of plant species and their relative cover or abundance in plots collected worldwide between 1885 and 2015. We complemented the information for each plot by retrieving climate and soil conditions and the biogeographic context (e.g., biomes) from external sources, and by calculating community-weighted means and variances of traits using gap-filled data from the global plant trait database TRY. Moreover, we created a phylogenetic tree for 50,167 out of the 54,519 species identified in the plots. We present the first maps of global patterns of community richness and community-weighted means of key traits.

Conclusions

The availability of vegetation plot data in sPlot offers new avenues for vegetation analysis at the global scale.

sPlot



Applied Vegetation Science
Conservation, restoration and survey of plant communities
IAVS

Report

European Vegetation Archive (EVA): an integrated database of European vegetation plots

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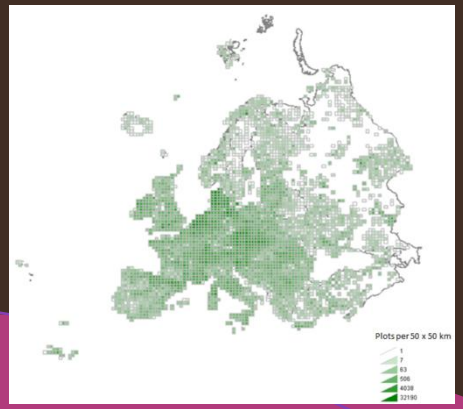
Abstract

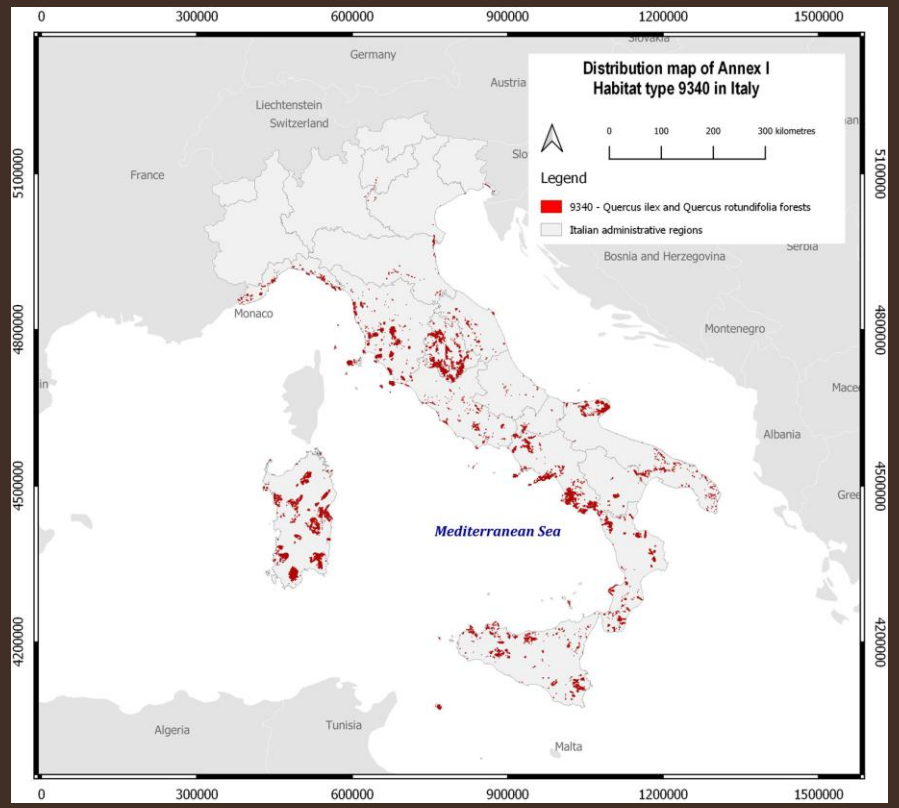
The European Vegetation Archive (EVA) is a centralized database of European vegetation plots developed by the IAVS Working Group European Vegetation Survey. It has been in development since 2012 and first made available for use in research projects in 2014. It stores copies of national and regional vegetation- plot databases on a single software platform. Data storage in EVA does not affect on-going independent development of the contributing databases, which remain the property of the data contributors. EVA uses a prototype of the database management software TURBOVEG 3 developed for joint management of multiple databases that use different species lists. This is facilitated by the SynBioSys Taxon Database, a system of taxon names and concepts used in the individual European databases and their corresponding names on a unified list of European flora. TURBOVEG 3 also includes procedures for handling data requests, selections and provisions according to the approved EVA Data Property and Governance Rules. By 30 June 2015, 61 databases from all European regions have joined EVA , contributing in total 1 027 376 vegetation plots, 82% of them with geographic coordinates, from 57 countries. EVA provides a unique data source for large-scale analyses of European vegetation diversity both for fundamental research and nature conservation applications. Updated information on EVA is available online at http://euroveg.org/eva-database.

EVA

European Environment Agency

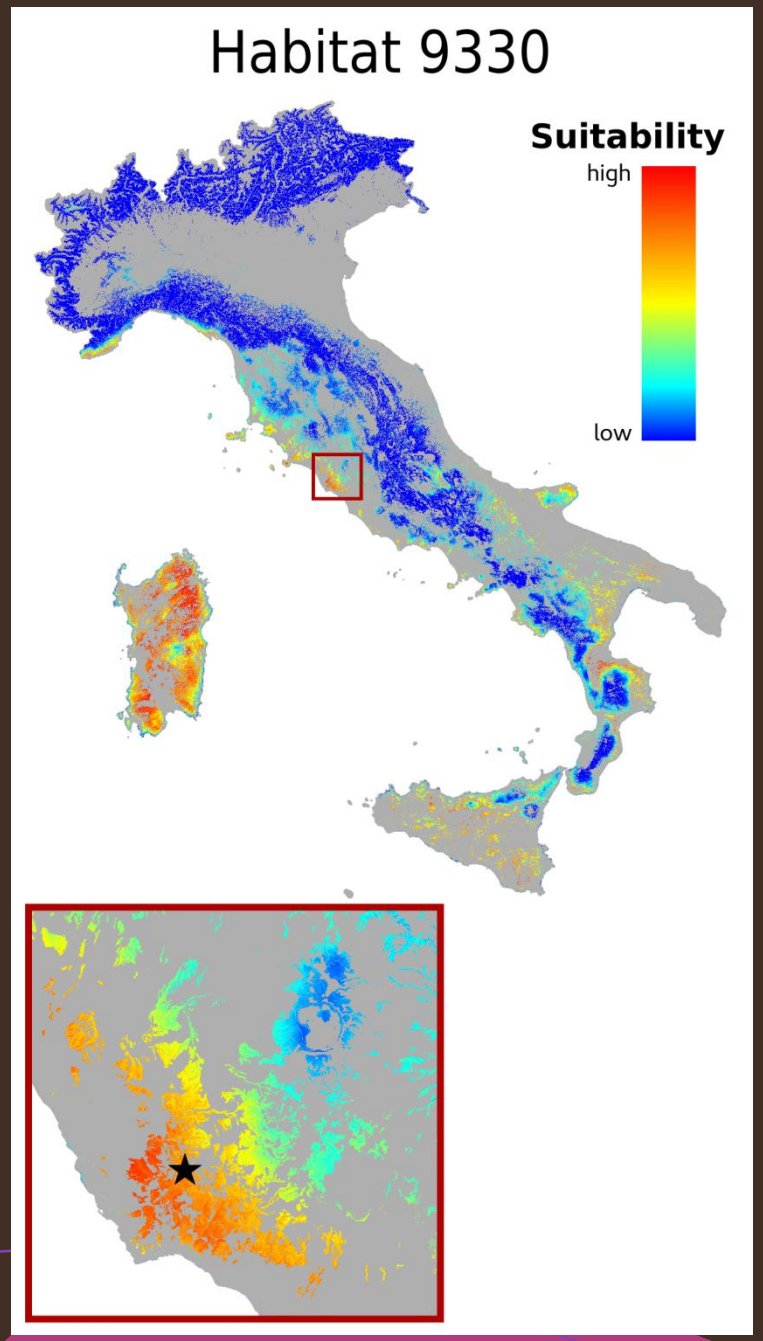


Nationwide Vegetation Database



Data	Nr. of plots
National Vegetation databases	~ 71.182
National Forest Inventories	~ 9.000

Formations In NVD	Cover percentage
Woodland	46
Grassland	30
Shurbland	12
Wetland	12



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Vegetation Database improve the local component on ecosystem monitoring for Copernicus Services Platform

- *Habitat detection (e.g. Eunis or Habitat Directive)*
- *Habitat monitoring (i.e. Spatio-Temporal Analysis)*
- *Essential Biodiversity Values (e.g. Favourable reference values)*
- *Functional ecological response (i.e. Plant traits and habitat traits)*
- *Services quantitative assessment*
- *Directives and global initiative implementation (i.e. HD reporting, CBD goals)*