



## EVA Annual report (2018)

This is the second annual report of the European Vegetation Archive (EVA) to summarizing the current status of the database consortium, our projects and publications.

In March 2018, EVA consisted of [74 databases](#) and **1,496,368 vegetation plots**, of which 86% were georeferenced and 63% were assigned to phytosociological syntaxa. 61% of plots may be accessed under semi-restricted regime and 23% under restrict regime, while the other 15% are open access.

In total, EVA data have been delivered to 64 projects, 18 of them starting last year (see the full list of projects [here](#)). In the last year two projects have been finished, while other six projects were cancelled by the leading authors (see below). Nowadays there are 38 on-going EVA projects.

Until now, EVA data have contributed to 11 journal papers, one book, nine technical reports, one bachelor thesis and 43 presentations at conferences or workshops. For an updated list of all publications, visit [this EVA webpage](#).

This year, we want to highlight two publications that extent the scientific impact of EVA beyond vegetation science:

- In their paper published in [Diversity and Distributions 23: 969-981](#), Wagner et al. make a synthesis of the patterns of plant invasions in European woodlands and their relationships with disturbance, fragmentation and propagule pressure, making a significant contribution to invasion ecology.
- The study published by Jiménez-Alfaro et al. in [Nature Ecology and Evolution 2: 483-490](#) used EVA data to address the historical and ecological constraints of species richness in European beech forests since the glacial age, providing a new framework for large-scale studies on community assembly.

We thank the EVA Council and all data contributors for keeping their interest in the consortium, and look forward to see new projects and research outputs in the next year!

**Borja Jiménez-Alfaro, Ilona Knollová and the EVA Coordinating Board**

**April 2018**



## EVA PROJECTS STARTED IN THE LAST YEAR

- **Ecological niche of *Nuphar pumila*** – J. Dengler
- **Evolutionary determinants of disconnected phylogenetic and functional diversity in European grasslands** – Z. Lososová
- **Between land and sea – a description and classification of low-growing salt meadow communities along the Baltic Sea coast (including related periodically wetted fresh contact communities)** – E. Bergmeier, R. Pätsch
- **Toward a mechanistic description of land uses for ecological studies: Building a Vegetation-Land-use converter for Europe** – A. Mimet
- **Success of holocentric chromosomes: natural competition experiment on a global evolutionary scale** – P. Bureš
- **Influence of historical and environmental factors on the community assembly of European alpine vegetation** – B. Jiménez-Alfaro
- **Formalized classification of European Mediterranean and temperate pine forests** – G. Bonari, M. Chytrý
- **Large-scale assessment of alien plant invasions in European grasslands** – I. Axmanová, M. Chytrý, J. Dengler
- **Pontic-Pannonian sand vegetation – synthetic overview** – M. Čuk, A. Čarni
- **Vegetation diversity of northern European boreal and hemi-boreal forests** – A. Pyykönen, M. Chytrý
- **BioScore 3.0 – A species-by-species model to assess anthropogenic impacts on terrestrial biodiversity in Europe** – M. Hendriks
- **$\beta$  diversity patterns in Europe along altitudinal and latitudinal gradients at multiple scales** – M. De Sanctis
- **Comparing present pollen and vegetation richness across Europe to reconstruct past plant biodiversity** – C. Adolf
- **Species distribution modelling of beech-silver fir mixed forests** – L. Baumbach
- **Quaternary niche and range dynamics in alpine plants** – K. Hülber
- **Vegetation affinity of *Pseudocalliergon lycopodioides*** – T. Peterka
- **Comparative analysis of petrophytic steppes and outcrops vegetation from Central and Eastern Europe** – I. Vasheniak
- **Vegetation classification and synecology of *Robinia pseudoacacia* stands in Europe** – M. Vítková

EVA PROJECTS SUCCESSFULLY FINISHED IN THE LAST YEAR (and related publications)



- **Vegetation diversity and patterns of mesic grasslands (*Arrhenatheretalia*) in Europe** – Maria Pilar Rodríguez-Rojo
  - ✓ Rodríguez-Rojo M.P., Jiménez-Alfaro B., Jandt U., Bruelheide H., Rodwell J.S., Schaminée J.H.J., Perrin P.M., Kački Z., Willner W., Fernández-González F. & Chytrý M. 2017. [Diversity of lowland hay meadows and pastures in Western and Central Europe](#). Applied Vegetation Science 20: 702–719
- **Spatial variability of transition dune habitats at European scale** – Silvia Del Vecchio
  - ✓ Del Vecchio S, Fantinato E, Janssen J, Bioret F, Acosta A, Prisco I, Tzonev R, Marcenò C, Rodwell J, Buffa G, 2018. [Biogeographic variability of coastal perennial grasslands at the European scale](#). Applied Vegetation Science 21: 312–321.

#### EVA PROJECTS CANCELLED IN THE LAST YEAR

- **Spring vegetation types of Mecsek Mts** – János Csiky
- **Ecological niches and spatial distribution of the two invasive *Impatiens* species (*glandulifera*, *parviflora*) and their native congener (*noli-tangere*) in Europe** – Jürgen Dengler
- **Pattern of alpha and beta diversity in European mountains: a case study on high altitude vegetation** – Zuzana Ballová
- **Increasing similarity in native and non-native functional diversity along altitudinal gradients on islands** – Bernd Lenzner
- **Mediterranean spatial phylogenetics** – Marta Carboni
- **Species distribution modelling of beech-silver fir mixed forests** – Lukas Baumbach

#### EVA PUBLICATIONS FROM THE ONGOING PROJECTS PUBLISHED IN THE LAST YEAR

- **Agrillo E, Alessi N, Jiménez-Alfaro B, Angelini P, Argagnon O, Crespo G, Fernández-González F, Monteiro-Henriques T, Neto S & Attorre F.** 2018. The use of large databases to characterize habitat types: the case of *Quercus suber* woodlands in Europe. Rendiconti Lincei (in press)
- **Dítě D., Peterka T., Dítětová Z., Hájková P. & Hájek M.** 2017. Arcto-alpine species at their niche margin: The Western Carpathian refugia of *Juncus castaneus* and *J. triglumis* in Slovakia. Annales Botanici Fennici 54: 67–82. – <http://www.annbot.net/PDF/anb54-free/anb54-067-082-free.pdf>



- **Hennekens S.M., Ozinga W.A. & Schaminée J.H.J.** 2017. BioScore 3 – Plants. Background and preprocessing of distribution data. WOT-technical report 106. Wageningen, The Netherlands. – <http://edepot.wur.nl/428824>
- **Jiménez-Alfaro B., Suárez-Seoane S., Chytrý M., Hennekens S.M., Willner W., Hájek M., Agrillo E., Álvarez-Martínez J.M., Bergamini A., Brisse H., Brunet J., Casella L., Dítě D., Font X., Gillet F., Hájková P., Jansen F., Jandt U., Kaçki Z., Lenoir J., Rodwell J.S., Schaminée J.H.J., Sekulová L., Šibík J., Škvorc Ž. & Tsiripidis I.** 2018. Modelling the distribution and compositional variation of plant communities at the continental scale. *Diversity and Distributions*. – <https://onlinelibrary.wiley.com/doi/full/10.1111/ddi.12736>
- **Jiménez-Alfaro B., Girardello M., Chytrý M., Svenning J.-C., Willner W., Gégout J.-C., Agrillo E., Campos J.A., Jandt U., Kaçki Z., Šilc U., Slezák M., Tichý L., Tsiripidis I., Turtureanu P.D., Ujházyová M. & Wohlgemuth T.** 2018. History and environment shape species pools and community diversity in European beech forests. *Nature Ecology & Evolution* 2: 483-490. – <https://www.nature.com/articles/s41559-017-0462-6>
- **Peterka T., Hájek M., Jiroušek M., Jiménez-Alfaro B., Aunina L., Bergamini A., Dítě D., Felbaba-Klushyna L., Graf U., Hájková P., Hettenbergerová E., Ivchenko T.G., Jansen F., Koroleva N.E., Lapshina E.D., Lazarević P.M., Moen A., Napreenko M.G., Pawlikowski P., Plesková Z., Sekulová L., Smagin V.A., Tahvanainen T., Thiele A., Biță-Nicolae C., Biurrun I., Brisse H., Čušterevska R., De Bie E., Ewald J., FitzPatrick Ú., Font X., Jandt U., Kaçki Z., Kuzemko A., Landucci F., Moeslund J.E., Pérez-Haase A., Rašomavičius V., Rodwell J.S., Schaminée J.H.J., Šilc U., Stančić Z. & Chytrý M.** 2017. Formalized classification of European fen vegetation at the alliance level. *Applied Vegetation Science* 20: 124–142. – <https://onlinelibrary.wiley.com/doi/abs/10.1111/avsc.12271>
- **Wagner V., Chytrý M., Jiménez-Alfaro B., Pergl J., Hennekens S., Biurrun I., Knollová I., Berg C., Vassilev K., Rodwell J.S., Škvorc Ž., Jandt U., Ewald J., Jansen F., Tsiripidis I., Botta-Dukát Z., Casella L., Attorre F., Rašomavičius V., Čušterevska R., Schaminée J.H.J., Brunet J., Lenoir J., Svenning J.-C., Kaçki Z., Petrášová-Šibíková M., Šilc U., García-Mijangos I., Campos J.A., Fernández-González F., Wohlgemuth T., Onyshchenko V. & Pyšek P.** 2017. Alien plant invasions in European woodlands. *Diversity and Distributions* 23: 969–981. – <https://onlinelibrary.wiley.com/doi/abs/10.1111/ddi.12592>
- **Willner W., Jiménez-Alfaro B., Agrillo E., Biurrun I., Campos J.A., Čarni A., Casella L., Csiky J., Čušterevska R., Didukh Ya.P., Ewald J., Jandt U., Jansen F., Kaçki Z., Kavğacı A., Lenoir J., Marinšek A., Onyshchenko V., Rodwell J., Schaminée J., Šibík J., Škvorc Ž., Svenning J.-C., Tsiripidis J., Turtureanu P.D., Tzonev R., Vassilev K., Venanzoni R., Wohlgemuth T. & Chytrý M.** 2017. Classification of European beech forests: a Gordian Knot? *Applied Vegetation Science* 20: 494–512. – <https://onlinelibrary.wiley.com/doi/abs/10.1111/avsc.12299>