Reinforce of the network of riparian vegetation group and disseminate the current results done under COST CONVERGES

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Training School on Diversity and development of phytocoenological databases and using of different numerical methods for analysis of vegetation data

21-26 October, 2019, Sofia, Bulgaria

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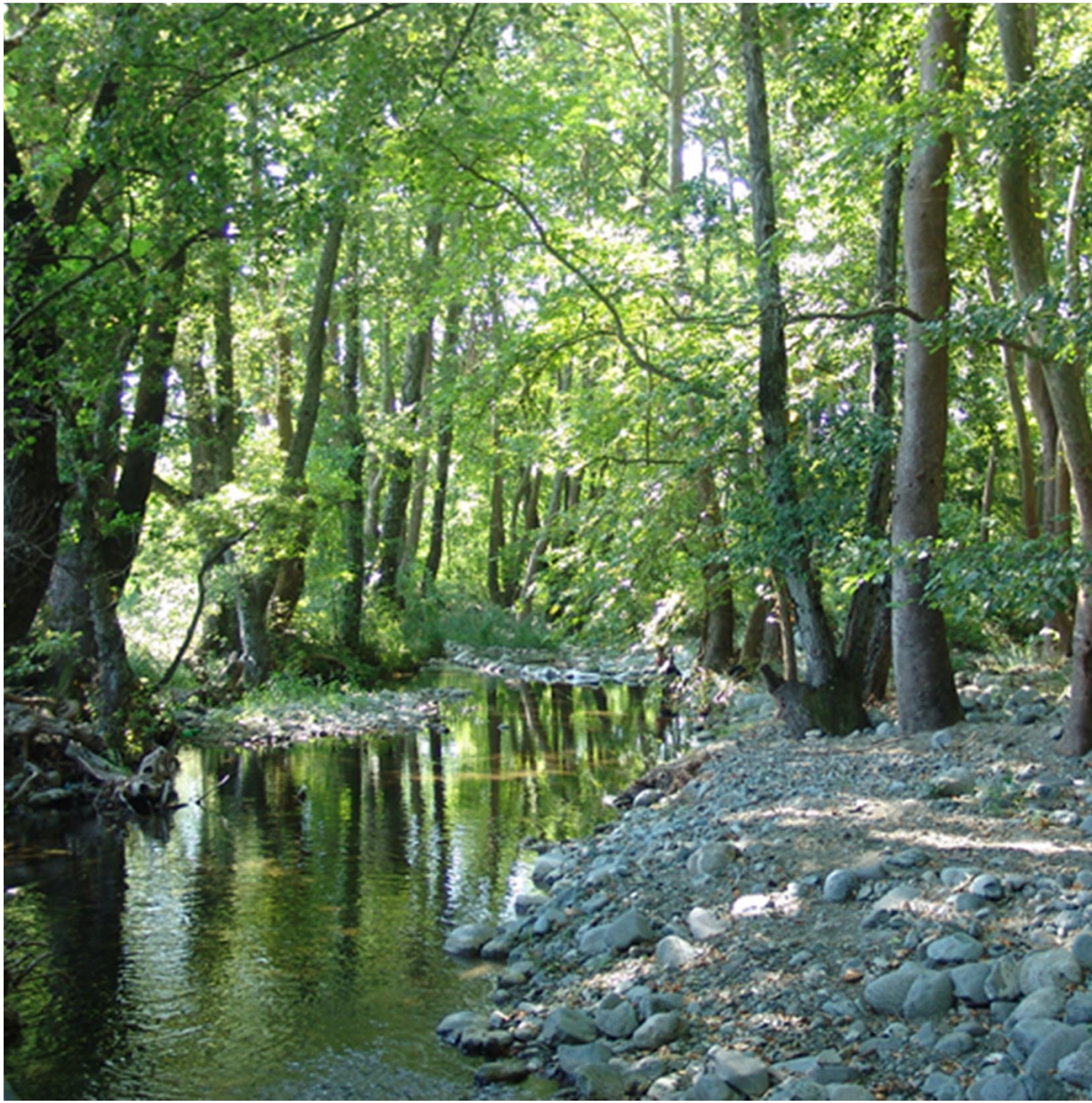


CONVERGES is a COST Action dedicated to riparian ecosystems.

Objectives

The overall aim of CONVERGES Action is to create a European network to bring together the diverse body of knowledge that exists across Europe for all aspects of riparian vegetation (from physical processes and ecology through society to societal and management issues to restoration and improvement).

The Action's principal research coordination objectives are:

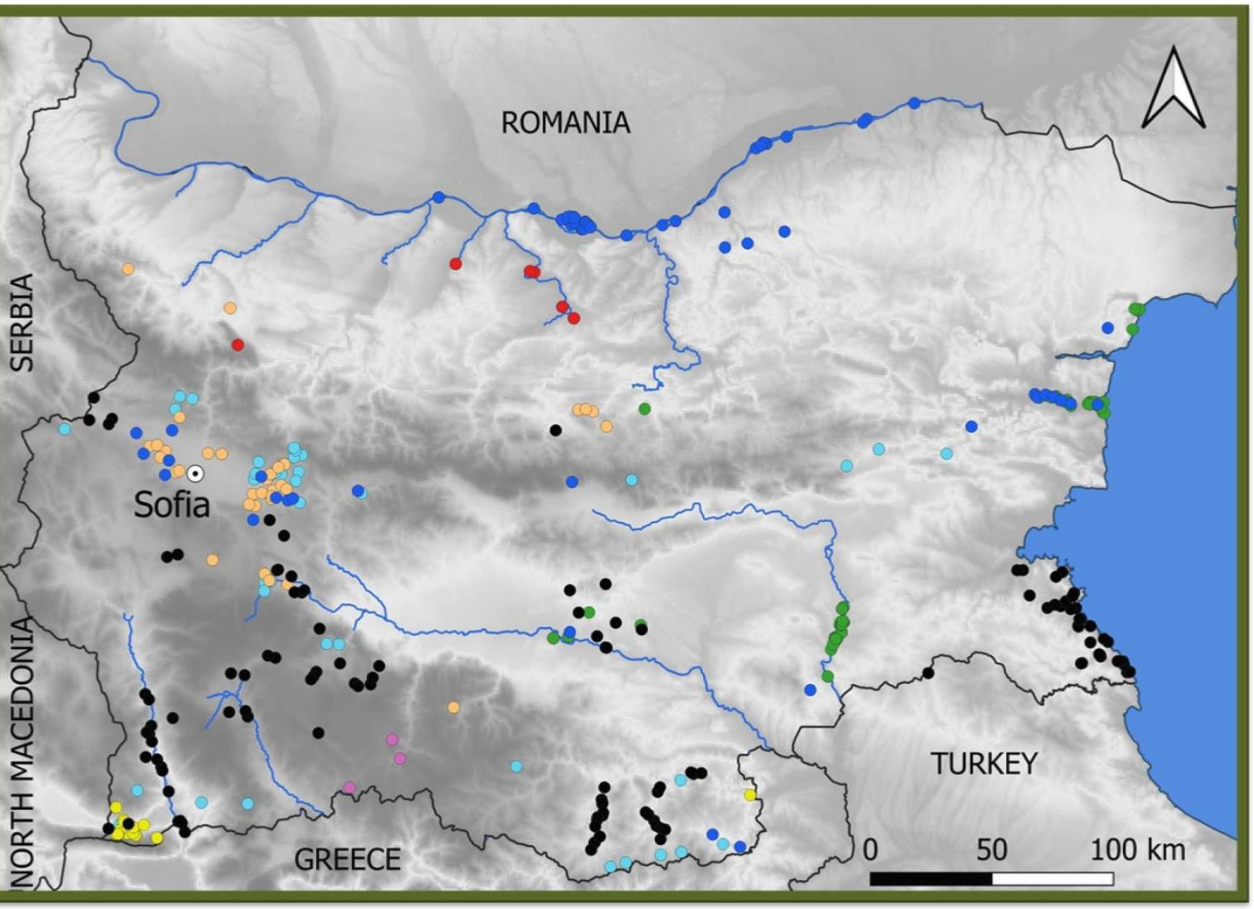
- **Synthesis** current knowledge to characterize the status of RV, their main stressors and management responses across Europe.
- **Convey and share** riparian knowledge among scientists, policy makers and stakeholders from different scientific disciplines, geographical regions and management contexts to understand how RV is framed by different communities and thereby facilitate effective knowledge conversion.
- **Identify** misalignments among actors in how the understand and conceptualize of RV in order to prioritize areas for knowledge conversion efforts as well as research gaps and policy/strategy.
- **Determine** evidence-based best practice in riparian management and develop effective tools and indicators to assess ecological status using RV, which can be effectively conveyed to practitioners in order to fulfil relevant policy targets.

Working groups

- Within CONVERGES, a phytosociological subgroup was created for studying syntaxonomy, status and ecosystem services provided by riparian forests in south-eastern Europe and Turkey.
- We are currently working on establishing a Formalized classification on riparian vegetation in SEE as a main project.
- Also we investigated diversity of *Platanus orientalis* woodlands in a regional perspective.
- Riparian forests are also researched on national level for the territory of Bosna and Herzegovina, Bulgaria, Macedonia, Montenegro, Slovenia and Turkey.

Bulgaria

Pavlov et Dimitrov, 2002
Roussakova et Tzonev, 2003
Tzonev, 2009

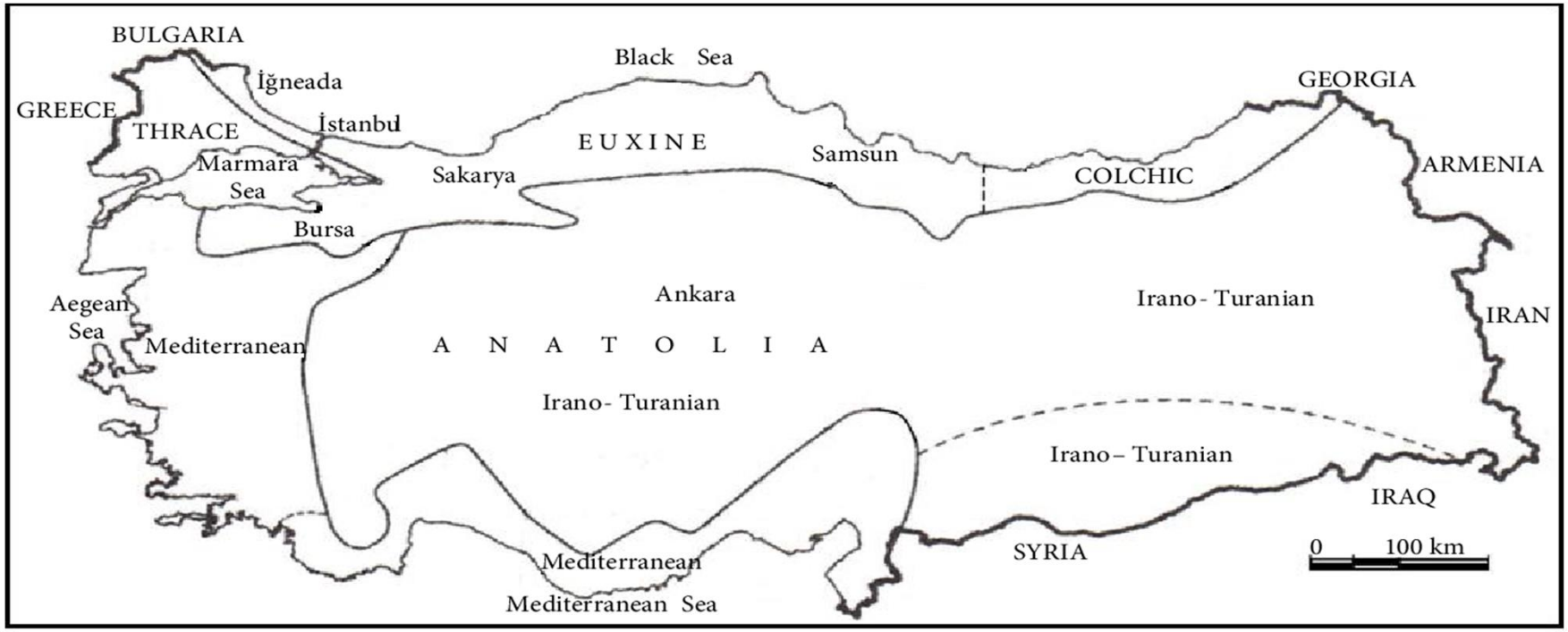


MAP LEGEND

SYNTAXA:

- Alnus incana community
- Amorpho fruticosae-Salicetum albae
- Castaneto sativae-Platanetum
- Salicetum fragilis
- Scutellario altissimae-Quercetum robo
- Smilaco excelsae-Fraxinetum oxycarpa
- Stellario nemorum-Alnetum glutinosae
- non-classified

Numerical Classification and Ordination of the Floodplain Forests in the Euxine Turkey
Ali Kavgacı et all.



Map showing th phytogeographical regions of Turkey an indicating th provinces of floodplai forests in the Euxin region that wer studied from th phytosociological point of view (İğnead and Sakarya, Bursa and Samsu provinces).

In this study, the phytosociological structure of floodplain forests in the Euxine region of Turkey was examined from a large-scale perspective. In summary, a syntaxonomical scheme for floodplain forests with 11 communities (five associations and one alliance were newly identified) was suggested

Slovenia


Karintija
Celowiec
Maribor
Velenje
Kranj
Kamnik
Celje
Ljubljana
Slovenija
Međimurska županija
Varaždin
Varaždinska županija
Krapinsko-zagorska županija
Zagreb
City of Zagreb
Samobor
Novo mesto
Črnomelj
Karlovec
Monfalcone
Trst
Izola
Gorica
Image Landsat / Copernicus
© 2009 GeoBasis-DE/BKG
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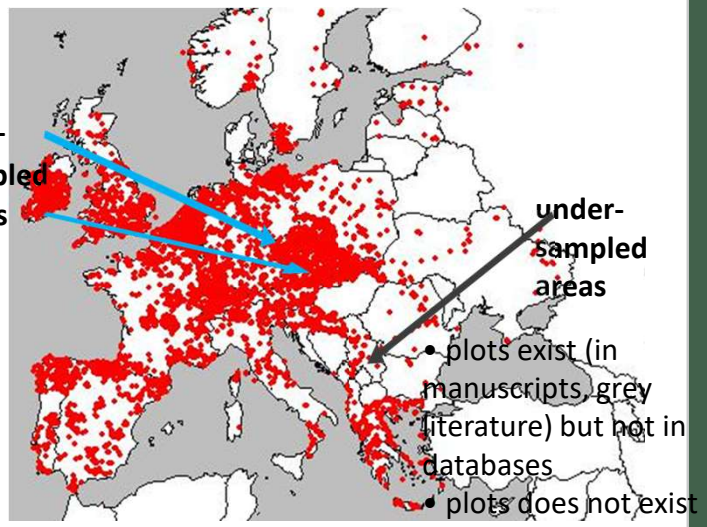
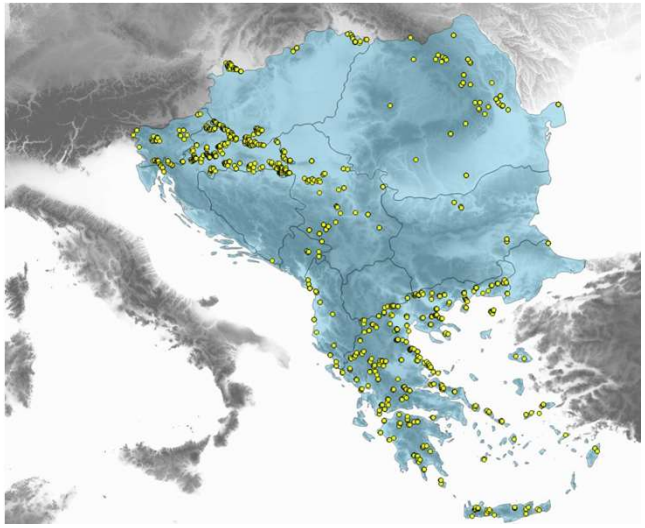




Riparian forests were revised on European level in 2016 (Douda et al. 2016)

- Vegetation classifications at the continental scale (Douda et al. 2016, Peterka 2017).

South-east Europe was covered innacurately

- ***What we can do next?***
- **Regional classifications**
- **Delimitation of study area:** Southeastern Europe (Hungary, Romania Bulgaria, Turkey, Greece, Macedonia, Albania, Serbia, Montenegro, Bosnia and Herzegovina, Slovenia, Croatia)
- **Compiling a new version of floodplain forest database** for southeast Europe: Large area in the southeastern Europe is an under-sampled the current version of Floodplain forest database.
- **Network of data contributors** Jan Douda, Maria Šibíková, Jozef Š Dejan Mandzukovski, Svetlana Aćić, Andraž Čarni, János Cs Panayotis Dimopoulos, Richard Hrivnák, Victor Adrian Indre Balázs Kevey, Renata Kjusterevska Michal Slezák, Vladimir Stu Željko Škvorc, Kiril Vasilev

Aims

- To fill the gap in our knowledge about riparian forests in SE Europe

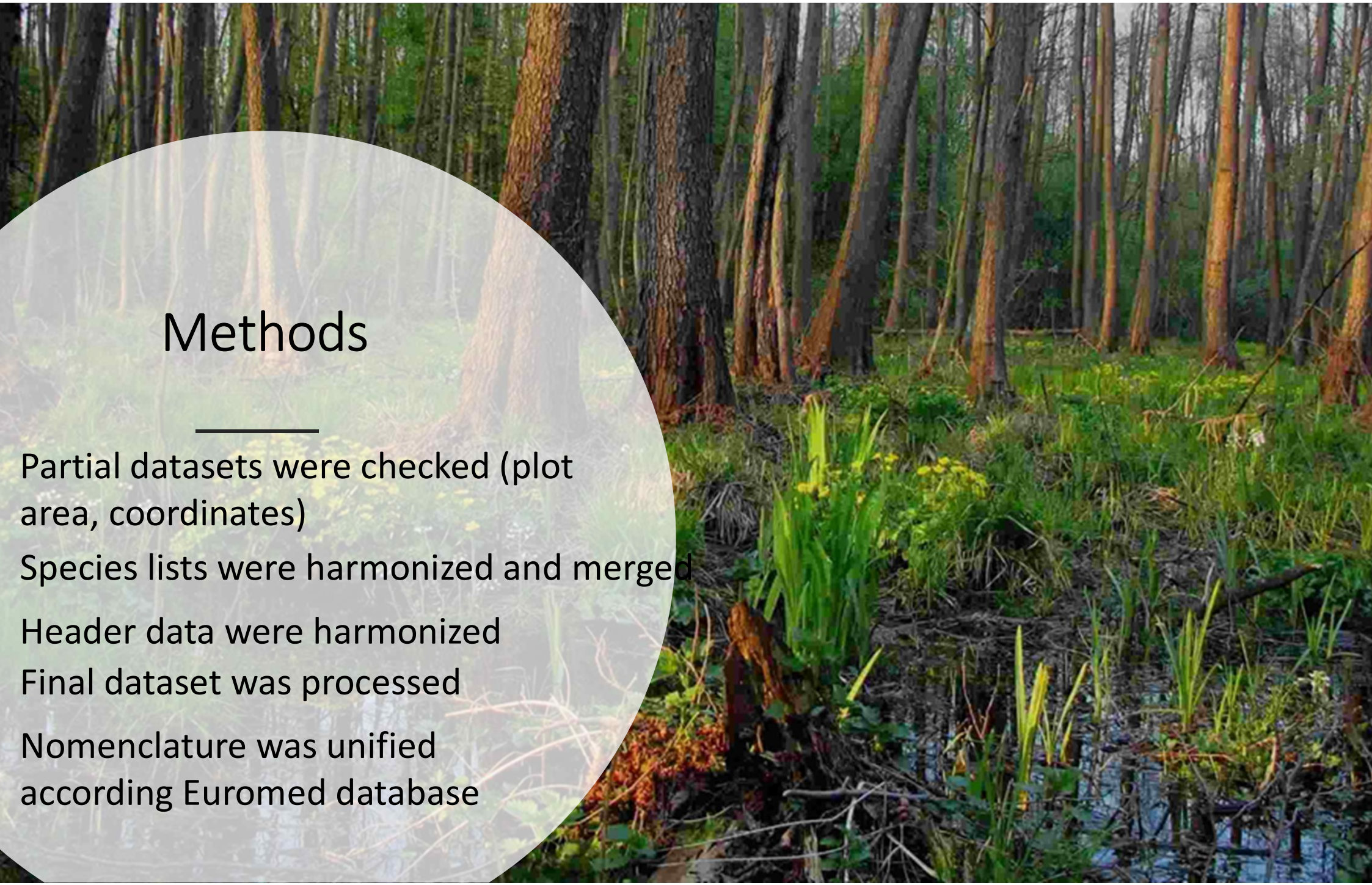
- To prepare phytosociological classification of these forests

Methods

The datasets of phytosociological relevés from SE Europe

Short Term Scientific Missions

Together more than 6000 relevés



Methods

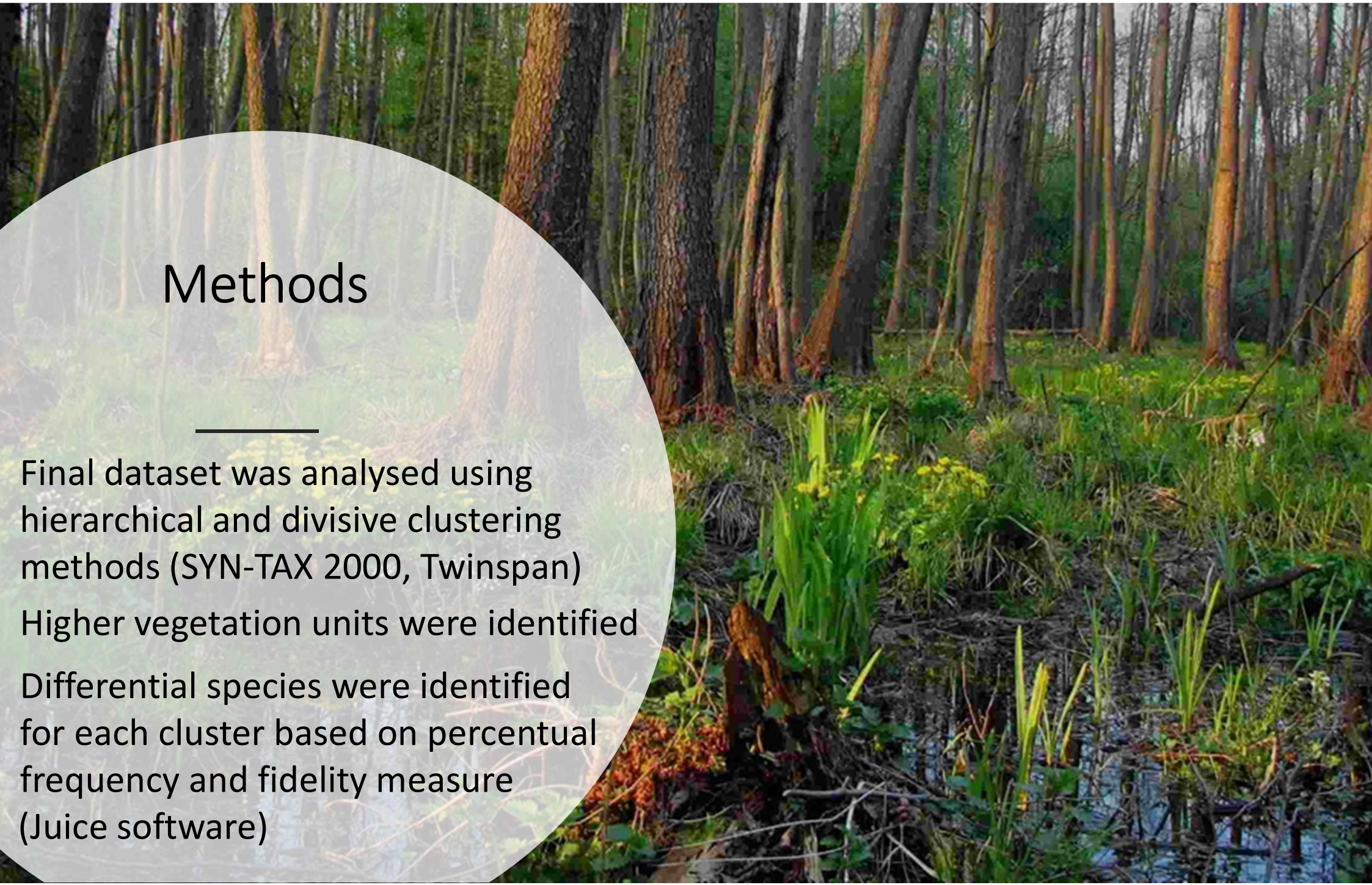
Partial datasets were checked (plot area, coordinates)

Species lists were harmonized and merged

Header data were harmonized

Final dataset was processed

Nomenclature was unified according Euromed database

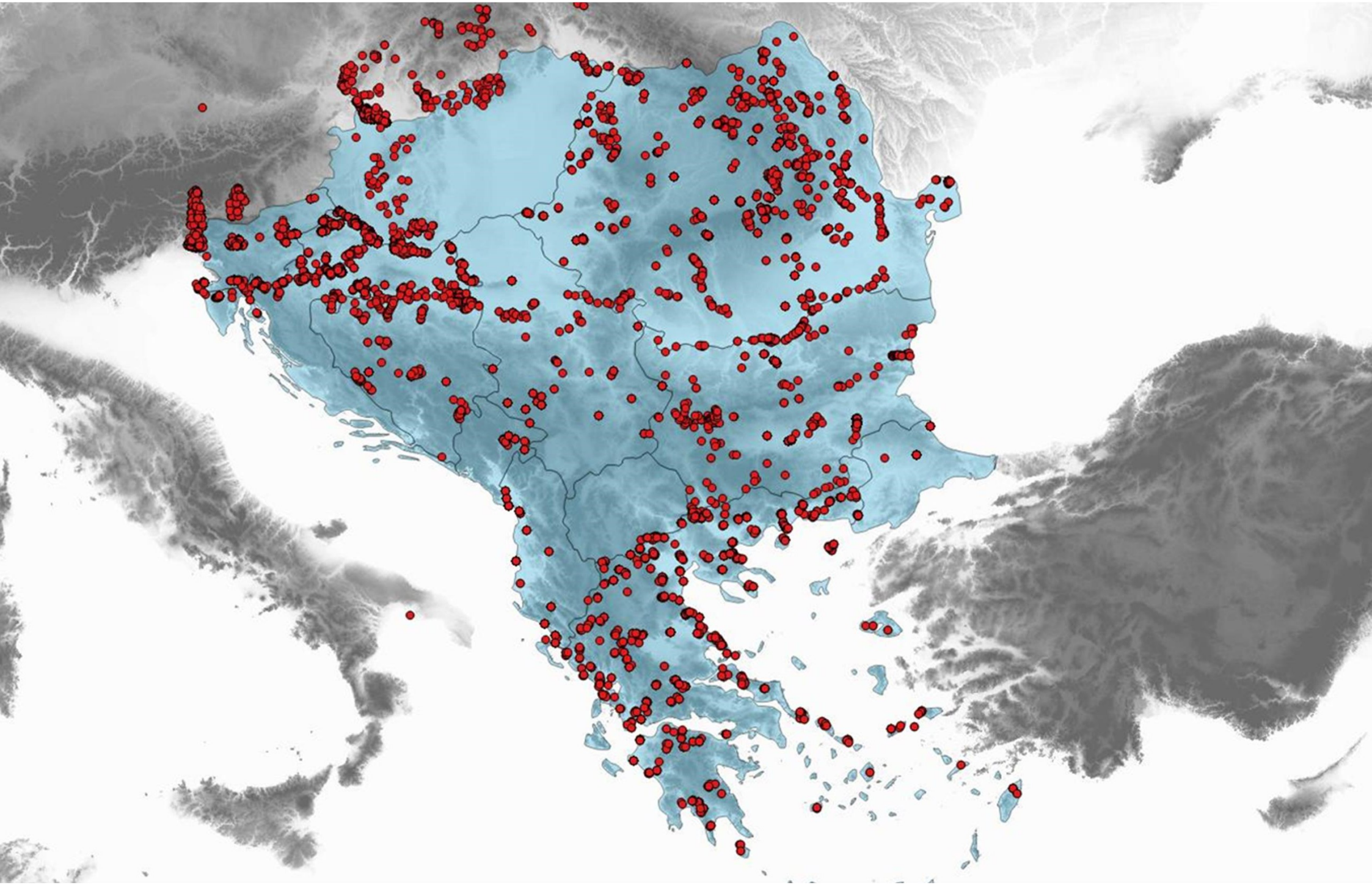


Methods

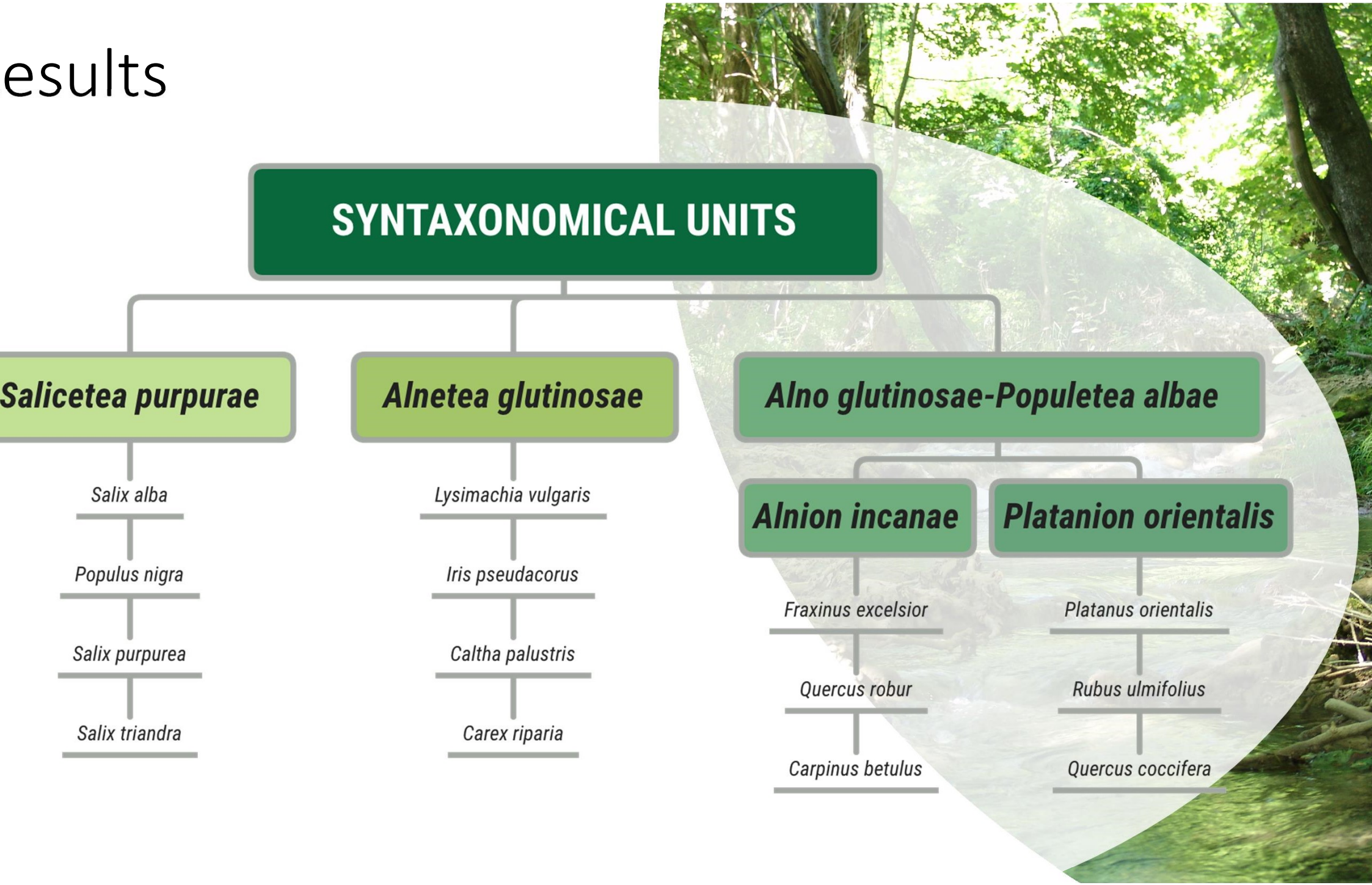
Final dataset was analysed using hierarchical and divisive clustering methods (SYN-TAX 2000, Twinspan)

Higher vegetation units were identified

Differential species were identified for each cluster based on percentual frequency and fidelity measure (Juice software)



esults


SYNTAXONOMICAL UNITS
Salicetea purpurae
Alnetea glutinosae
Alno glutinosae-Populetea albae
Salix alba
Populus nigra
Salix purpurea
Salix triandra
Lysimachia vulgaris
Iris pseudacorus
Caltha palustris
Carex riparia
Alnion incanae
Platanion orientalis
Fraxinus excelsior
Quercus robur
Carpinus betulus
Platanus orientalis
Rubus ulmifolius
Quercus coccifera

- POP-02 Alno-Fraxinetalia excelsioris Passarge 1968
- Floodplain riparian forests on nutrient-rich alluvial soils of temperate and boreal Europe

- POP-02C Alno-Quercion roboris Horvat 1950
- Alder-oak riparian floodplain forests on nutrient-rich alluvial soils of the temperate regions of the Balkan Peninsula
- POP-02A Alnion incanae Pawłowski et al. 1928
- Alder-ash and oak riparian floodplain forests on nutrient-rich alluvial soils in the nemoral zone ofEurope

Future aims

Finalization of syntaxonomical system at association level

Preparation of the manuscript

Using of syntaxonomical system in practice

Some of the results will also help to serve the EU Habitats (1992, updated in 2013) and Birds (2009) Directives and the Natura 2000 network, as many species rely on riparian vegetation for all or part of their habitat requirements.


Thank you
for your attention