GrassPlot database

A collaborative initiative within the EDGG framework

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& the GrassPlot Consortium

Monika Janišová

Table 1. ***Statistics of the past EDGG Expeditions/Field Workshops.***

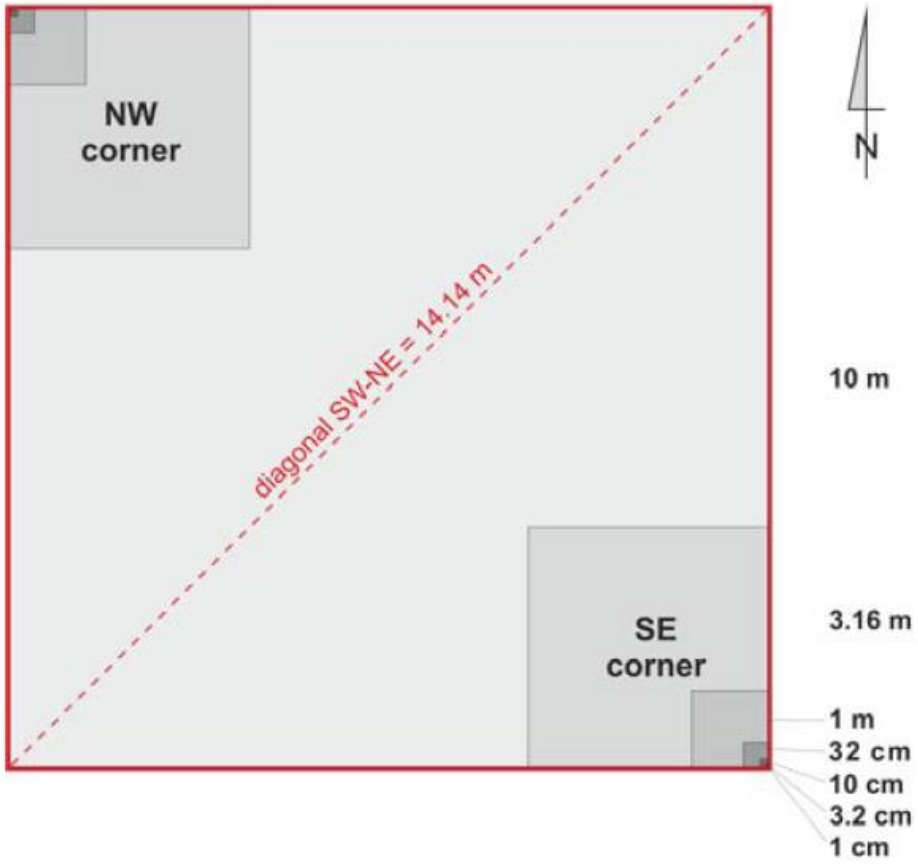
No.	Period	Research area	Elevation (m a.s.l.)	Partici-pants	Countries	Biodiver-sity plots	10-m^2 plots (total)
1	14-26 July 2009	Romania	321-670	6	3	20	63
2	10-25 July 2010	Ukraine	73-251	18	8	21	226
3	14-24 August 2011	Bulgaria	633-1460	9	5	15	98
4	29 March-5 April 2012	Sicily	4-1200	14	5	21	67
5	15-23 May 2012	Greece	1-1465	16	6	14	31
6	22 July-1 August 2013	Siberia	300-700	14	7	39	133
7	15-24 June 2014	Spain	295-1970	16	10	35	119
8	13-23 June 2015	Poland	108-465	16	6	31	86
9	2-9 July 2016	Serbia	92-1555	22	10	32	141

3-11 June 2017: Abruzzo (Italy)

Sampling design of the EDGG Field Workshops

- **„Biodiversity plots“** with seven grain sizes: 0.0001, 0.001, 0.01, 0.1, 1, 10 an 100 m²
- Additional **„normal plots“** of 10 m²
- Placed subjectively within different grassland areas, with the aim to capture the full ecological and floristical gradients
- All **terricolous taxa of the vegetation** (vascular plants, bryophytes, lichens)
- **Shoot presence**
- **Environmental data** for all 10-m² subplots

Detailed **methodological description** in Dengler et al. (2016, *Bull. Eurasian Dry Grassland Group* 32: 13-30)



World record grassland in Transylvania with 98 vascular plant species on 10 m²

Tuexenia 33: 309–346. Göttingen 2013.
available online at www.tuexenia.de

Dry grasslands of NW Bulgarian mountains: first insights into diversity, ecology and syntaxonomy

Trockenrasen in den Gebirgen Nordwest-Bulgariens: erste Einblicke in Diversität, Ökologie und Syntaxonomie

Hristo Pedashenko[1], Iva Apostolova[1], Steffen Boch[2], Anna Ganeva[1], Monika Janišová[3], Desislava Sopotlieva[1], Salza Todorova[4], Aslan Ünal[5], Kiril Vassilev[1], Nikolay Velev[1], Jürgen Dengler[6,*]

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**Corresponding author, E-mail: juergen.dengler@uni-bayreuth.de*

Biodivers Conserv (2016) 25:2251–2273
DOI 10.1007/s10531-016-1093-y

CrossMark

ORIGINAL PAPER

Scale- and taxon-dependent patterns of plant diversity in steppes of Khakassia, South Siberia (Russia)

Mariya A. Polyakova[1] · Iwona Dembicz[2] · Thomas Becker[3] · Ute Becker[4] · Olga N. Demina[5] · Nikolai Ermakov[1] ·

Agriculture, Ecosystems and Environment 182 (2014) 15–24

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journal homepage: www.elsevier.com/locate/agee

Scale- and taxon-dependent biodiversity patterns of dry grassland vegetation in Transylvania

CrossMark

Pavel Dan Turtureanu[a], Salza Palpurina[b], Thomas Becker[c], Christian Dolnik[d], Eszter Ruprecht[a], Laura M.E. Sutcliffe[e], Anna Szabó[a], Jürgen Dengler[f,*,1,2]

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GrassPlot Workshop 6-10 March 2017, Bayreuth

GrassPlot database

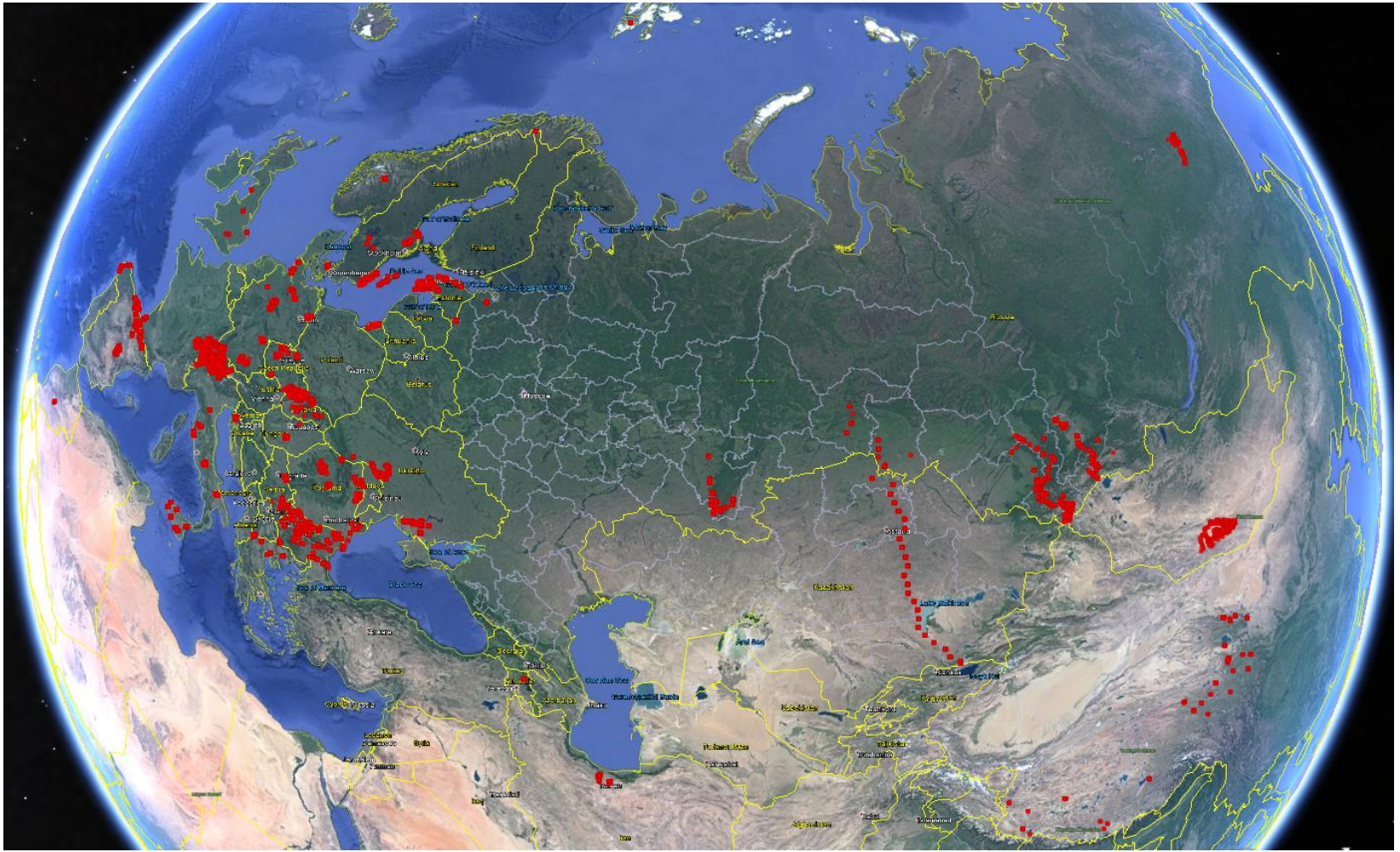
Registered in GIVD:
EU-00-003

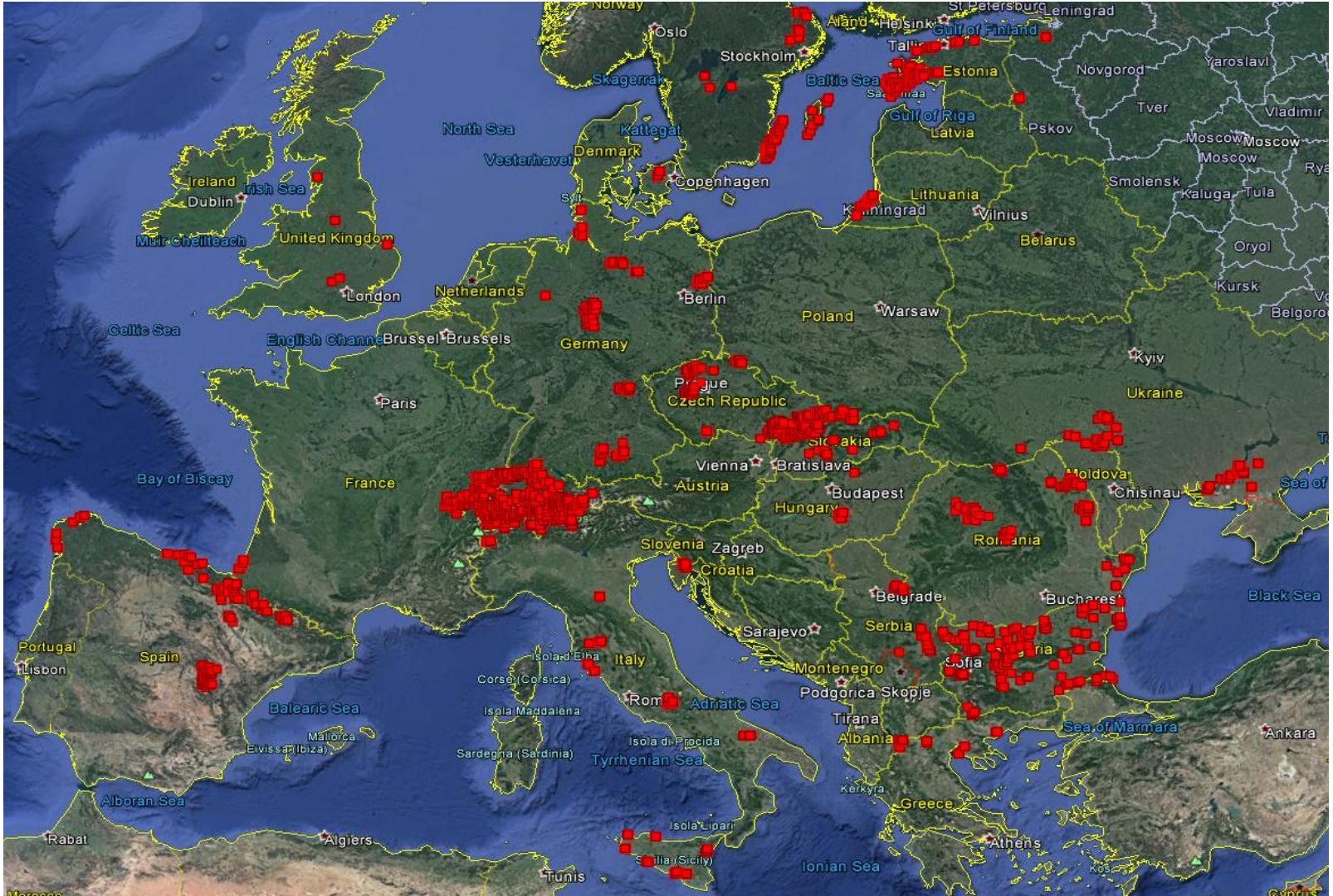
<u>Custodians:</u>

Jürgen Dengler
Idoia Biurrun

GrassPlot database (19 June 2017)

- **91 datasets from 121 data owners (31 countries)**
- **29,061 plots, among them 13,470 with data also for non-vascular plants**
- **1,149 nested-plot series (with ≥ 4 grain sizes)**



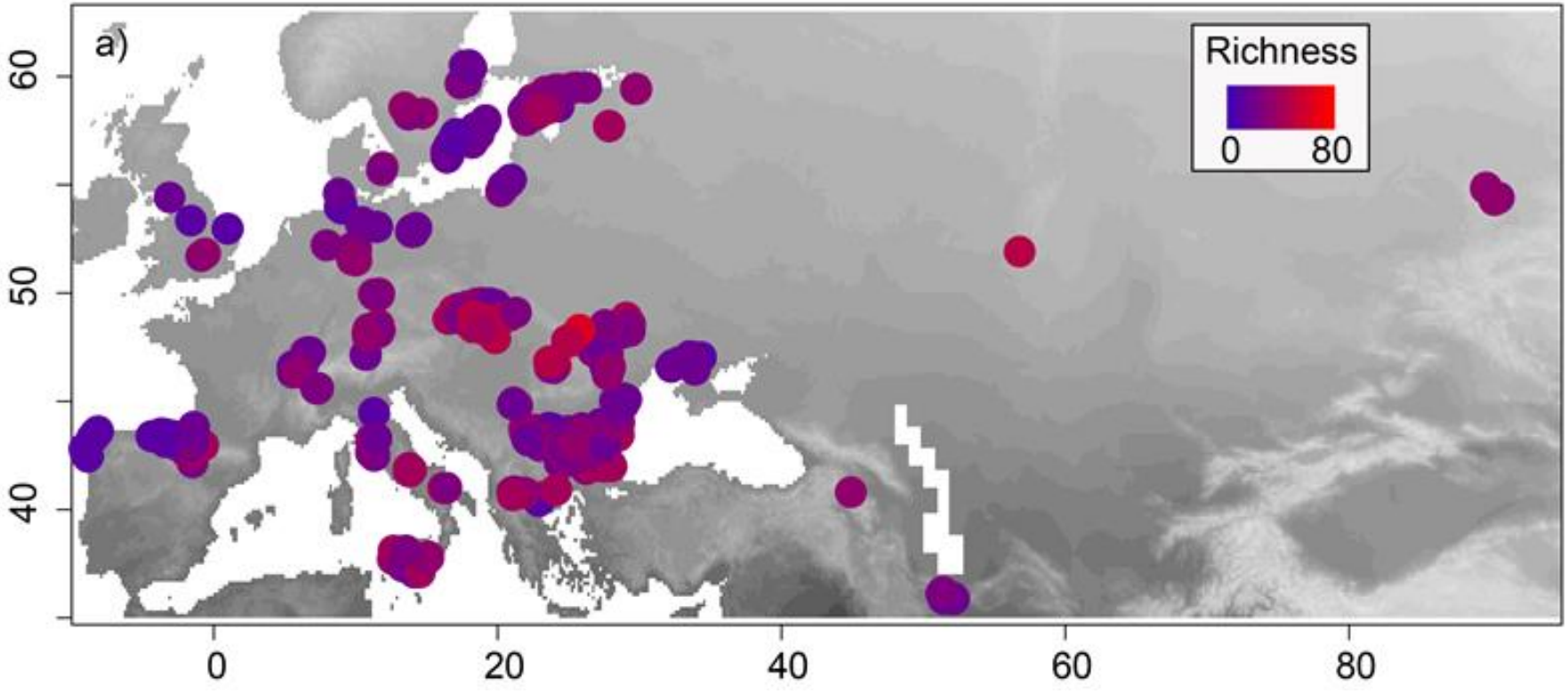

Norway
Oslo
Stockholm
Skagerrak
Åland
Helsinki
St Petersburg
Leningrad
Gulf of Finland
Tallinn
Estonia
Baltic Sea
Novgorod
Yaroslavl
Tver
Vladimir
Gulf of Riga
Latvia
Pskov
Moscow
Moscow
Moscow
Smolensk
Kaluga
Tula
North Sea
Kattegat
Denmark
Vesterhavet
Copenhagen
Ireland
Irish Sea
Dublin
Muir Chéilleach
United Kingdom
Lithuania
Vilnius
Belarus
Oryol
Kursk
London
Netherlands
Berlin
Poland
Warsaw
Celtic Sea
English Channel
Brussel
Brussels
Germany
Kyiv
Ukraine
Paris
Czech Republic
Slovakia
Vienna
Bratislava
Moldova
Chisinau
Bay of Biscay
France
Austria
Budapest
Hungary
Romania
Slovenia
Zagreb
Croatia
Belgrade
Black Sea
Portugal
Lisbon
Spain
Sarajevo
Serbia
Montenegro
Sofia
Italy
Isola d'Elba
Corse (Corsica)
Podgorica
Skopje
Balearic Sea
Isola Maddalena
Adriatic Sea
Tirana
Albania
Sea of Marmara
Ankara
Mallorca
Eivissa (Ibiza)
Isola di Procida
Sardegna (Sardinia)
Tyrrhenian Sea
Alboran Sea
Kerkyra
Greece
Isola Lipari
Rabat
Algiers
Athens
Tunis
Ionian Sea

Vegetation types in GrassPlot (19 June 2017)

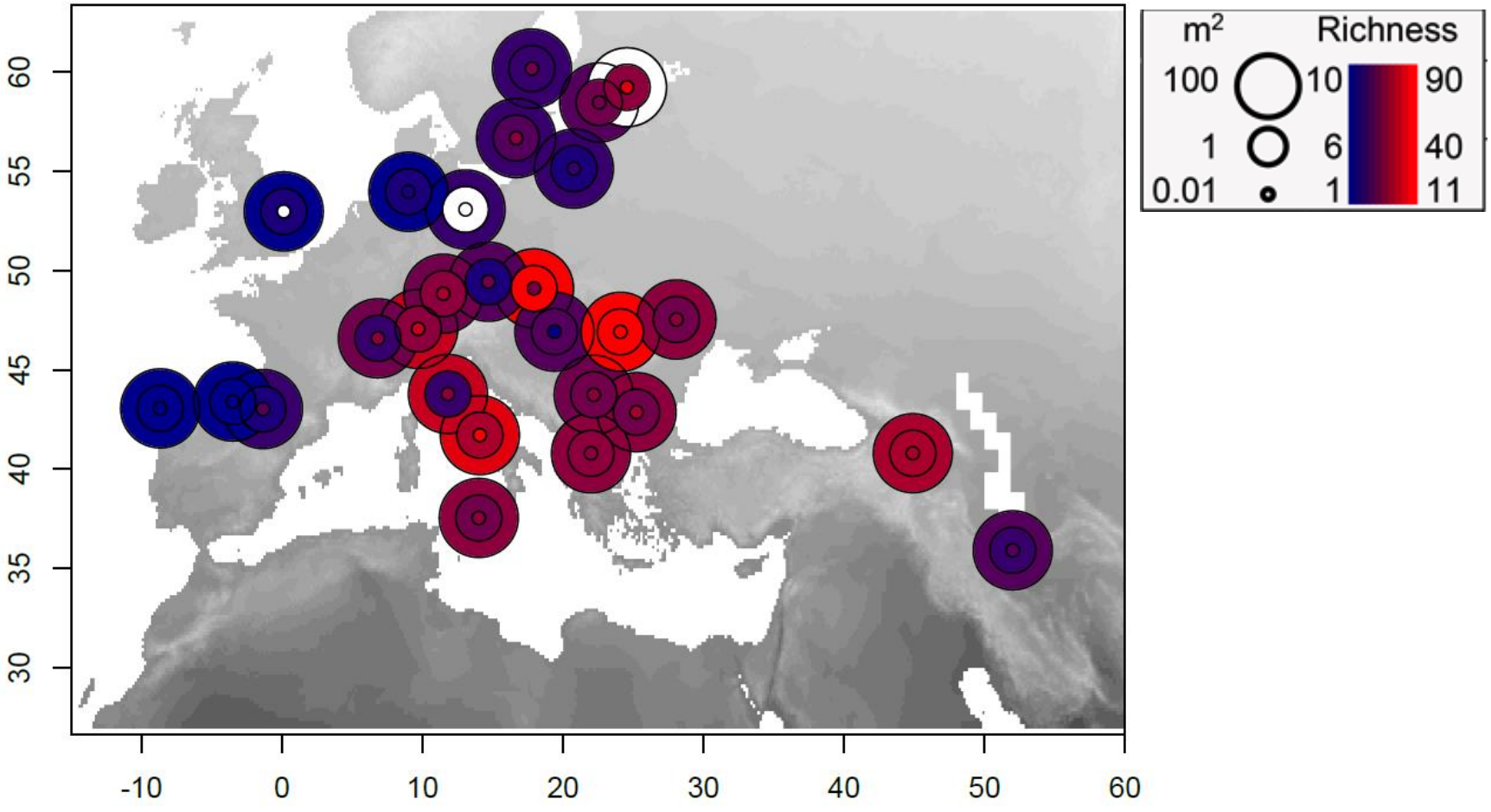
- ***Festuco-Brometea* (39.4%)**
- ***Molinio-Arrhenatheretea* (13.0%)**
- ***Ammophiletea* (8.6%)**
- ***Koelerio-Corynephoretea* (7.5%)**
- ***Juncetea maritimi* (6.3%)**
- ***Helichryso-Crucianelletea* (5.2%)**
- **Others: *Sedo-Scleranthetea* (2.1%), *Scheuchzerio-Caricetea* (2.0%), *Cleistogenetea squarrosae* (1.5%), *Juncetea trifidi* (1.4%), *Elyno-Seslerietea* (1.4%)**

First analyses with GrassPlot

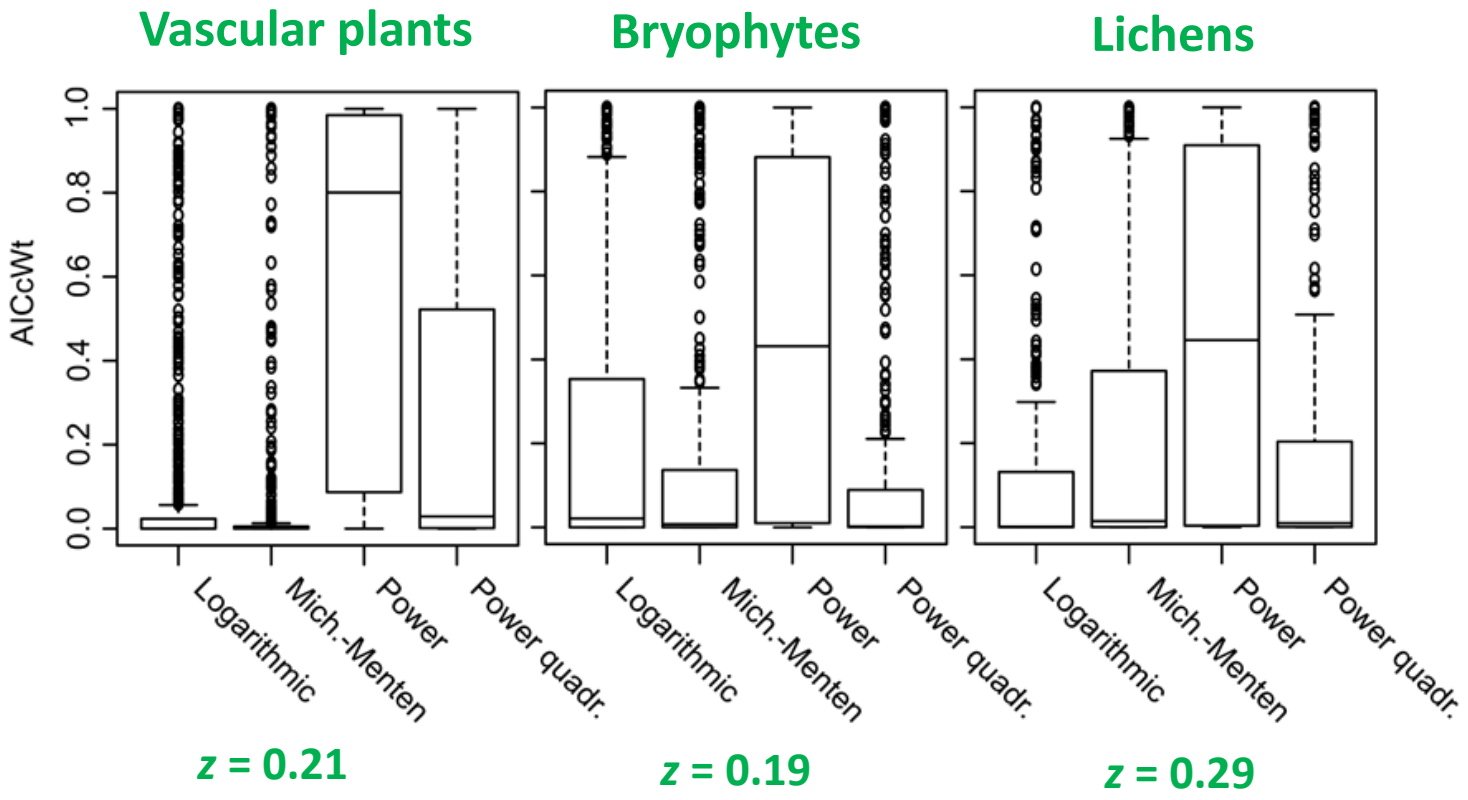
Mean 1-m² vascular plant species richness



Mean vascular plant species richness



Species-area relationships (SARs)



Requirements of the database

- **Grasslands s.l. from the Palaearctic realm**
- **Nested-plot series with at least 4 grain sizes and/or data from standard grain sizes** (0.0001; 0.001 or 0.0009; 0.01; 0.1 or 0.09; 1; 10 or 9; 100; 1000 or 900 or 1024 m^2)
- **Precisely delimited plots, carefully sampled for completeness**
- **Precise coordinates**
- bryophytes and lichens sampled
- environmental data from the plot

Join GrassPlot !!!

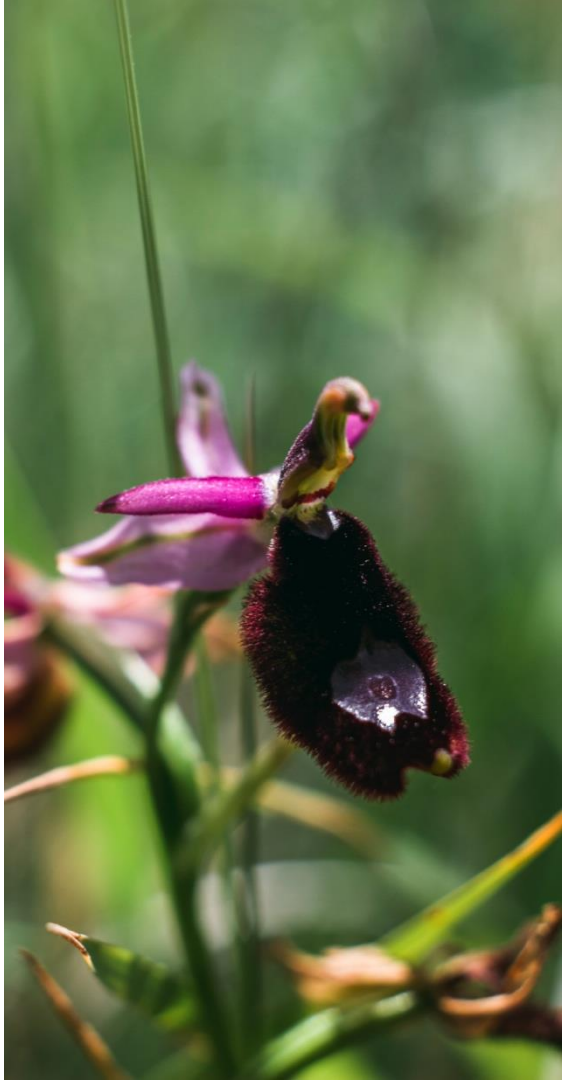
Join Field Workshops !!!

3-11 June 2017: Abruzzo (Italy)

Aims of the Abruzzo workshop

- Sampling of plant richness patterns across a continentality gradient
- Entomological sampling of leafhoppers and planthoppers
- Bias estimation of group sampling (revisitation procedure)

3-11 June 2017: Abruzzo (Italy)



#bitrix24friend

Thanks to Marta Sperandii and Denys Vynokurov for providing some photos!