# Bulletin 15

## of the European Dry Grassland Group

*The spring period was filled with plenty of interesting events for EDGG members, such as the EDGG Research Expeditions to Sicily and Northern Greece, 9th European Dry Grassland Meeting in Prespa, EVS meeting in Vienna and the steppe conference in Erfurt. In this Bulletin we present experiences and reports from some of them. However, the detailed report from the Prespa meeting, which is perhaps the most important for our members, will be presented in the September issue. Besides field and scientific work, the committee of the EDGG has been dealing also with important administrative aspects and as a result of numerous previous discussions, we agreed on some minor changes to the Bylaws of the EDGG. The changes are presented in this Bulletin and the full, official version of the Bylaws is accessible via the EDGG web site at edgg.org. We hope that the information on special issues of scientific journals and invitations to summer activities will encourage you to participate too.*

*Editors*

**Content**



*Diantho deltoidis-Armerietum elongatae (alliance Armerion elongatae, order Trifolio arvensis-Festucetalia ovinae, class Koelerio-Corynephoretea) with flowering Dianthus deltoides, Galium verum and Thymus serpyllum in the nature reserve 'Binnendünen bei Klein Schmölen', Elbe valley, Mecklenburg-Vorpommern, Germany.*
*Photo: J.Dengler*


June 2012

EDGG homepage: www.edgg.org

# European Dry Grassland Group

The European Dry Grassland Group (EDGG) is a network of dry grassland researchers and conservationists in Europe. EDGG is a Working Group of the International Association for Vegetation Science (IAVS). EDGG is also supported by the Floristisch-soziologische Arbeitsgemeinschaft.

**The basic aims of the EDGG are:**

♠ To compile and to distribute information on research and conservation in dry grasslands beyond national borders;

♠ to stimulate active cooperation among dry grassland scientists (exchanging data, common data standards, joint projects).

To achieve its aims, EDGG provides seven media for the exchange of information between dry grassland researchers and conservationists:

♠ **the Bulletin of the EDGG** (published quarterly);

♠ **the EDGG homepage** (www.edgg.org);

♠ e-mails via our **mailing list** on urgent issues;

♠ **the European Dry Grassland Meetings** - organized annually at different locations throughout Europe;

♠ **EDGG research expeditions** to sample baseline data of underrepresented regions of Europe;

♠ **EDGG vegetation databases;**

♠ **Special Features** on dry grassland-related topics in various peer-reviewed journals.

**The EDGG covers all aspects related to dry grasslands, in particular:** plants - animals - fungi - microbia - soils - taxonomy - phylogeography - ecophysiology - population biology - species' interactions - vegetation ecology - syntaxonomy - landscape ecology - biodiversity - land use history - agriculture - nature conservation - restoration - environmental legislation - environmental education.

Anyone can join the EDGG without any fee or other obligation. To become a member of the European Dry Grassland Group or its subordinate units, please, send an e-mail to Jürgen Dengler, including your name and complete address, and specify any of the groups you wish to join. More detailed information can be found at: http://www.edgg.org/about_us.htm.

## EDGG Subgroups

EDGG members are automatically assigned to the Regional Subgroup of the region in which they reside. If you additionally wish to join other Subgroups or the new Grassland Conservation and Restoration Subgroup, just send an e-mail to the Membership Administrator (dengler@botanik.uni-hamburg.de).

Arbeitsgruppe Trockenrasen (Germany) (contact: Ute Jandt - jandt@botanik.uni-halle.de, Jürgen Dengler - dengler@botanik.uni-hamburg.de): 213 members

Working Group on Dry Grasslands in the Nordic and Baltic Region (contact: Jürgen Dengler - dengler@botanik.uni-hamburg.de): 81 members

South-East European Dry Grasslands (SEEDGG) (contact: Iva Apostolova - iva@bio.bas.bg): 216 members

Mediterranean Dry Grasslands (Med-DG) (contact: Michael Vrahnakis - mvrahnak@teilar.gr): 272 members

Topical Subgroup Grassland Conservation and Restoration (contact: Péter Török - molinia@gmail.com): 50 members

## EDGG Executive Committee and responsibilities of its members

**Jürgen Dengler**: Membership Administrator, Representative to the IAVS, Coordinator for Special Features, Coordinator for EDGG Expeditions, Book Review Editor, Deputy Contact Officer to other organisations.

**Monika Janišová**: Editor-in-Chief of the Bulletin of the EDGG, Deputy Meetings Coordinator, Deputy-Representative to the IAVS.

**Solvita Rūsiņa**: Editor-in-Chief of the EDGG homepage (incl. other electronic media).

**Péter Török**: Contact Officer to other organisations, Deputy-Secretary-General, Deputy-Officer of the Special Policy Committee

**Stephen Venn**: Secretary-General, Deputy-Editor-in-Chief of the EDGG homepage (incl. other electronic media).

**Michael Vrahnakis**: Meetings Coordinator, Officer of the Special Policy Committee.

# EDGG Bylaws modified

At some point during spring 2011, we realized that it might be a good idea to draft a set of statutes or bylaws to increase the transparency of the organization and define the way the EDGG is organized and run, as well as clarifying our relationship with our mother-organization, the IAVS. In response, the Executive Committee began developing and revising a draft version of Bylaws. By autumn 2011, we were ready to present the draft Bylaws to the membership for approval, which took the form of an internet ballot throughout the month of September. A total of 44 members voted unanimously in favour of accepting the proposed bylaws and three members suggested the following modifications: one questioned the acceptability of automatically conferring membership on individuals (article 3 clauses 3b and 3c) without their express approval and a second member suggested that the bylaws should cover the finances of the organization and to provide more complete details on activities, such as permanent committees. A mistake was also detected in article 4.4a iii, in which the bylaws mistakenly referred to "documents of the EDGG" as "documents of the IAVS."

After this acceptance of the Bylaws in the electronic ballot on 30 September 2011, we submitted them to the IAVS Governing Board (GB), as requested for IAVS Working Groups. The IAVS GB detected some conflicts between the IAVS Statutes and the EDGG Bylaws and made further proposals for modifications. In consequence of this, the EDGG Executive Committee (EC) held a video conference with representatives of the IAVS on 7th February 2012. The participants were Martin Diekmann (IAVS), Bob Peet (IAVS), Susan Wiser (IAVS), Jürgen Dengler (EDGG/IAVS), Solvita Rusina (EDGG/IAVS) and Stephen Venn (EDGG). The result of this negotiation was to propose a number of linguistic changes to the text of the EDGG Bylaws, clarify the distinction between termination of working group status and dissolution of the organization (Articles 10 and 12), clarify the management of finances (Article 11), clarify what is meant by EDGG Representatives to the IAVS (Article 4a1) and to increase the majority required for acceptance of major decisions by the executive council from a two thirds majority to a three quarters majority. In addition, the IAVS Governing Board agreed to change the stipulation in the IAVS Bylaws that in IAVS Working Groups only IAVS members have the right to vote, which was unacceptable to the EDGG, as we also wish to remain open to non-vegetation scientists. Accordingly, a proposal will be made to the IAVS Council during its meeting in Mokpo, South Korea, to modify the IAVS Bylaws in accordance with a joint motion of the IAVS GB and Jürgen Dengler (as an IAVS Council member)

Subsequently to this video conference, the EDGG Bylaws were modified in response to these suggestions and a few further linguistic improvements added (see the documentation of changes below). The EDGG Executive Committee approved these modifications according to Bylaw 9.1.c unanimously on 10 May 2012. The new Bylaws are valid since then and have been briefly presented to the General Assembly in Prespa. They need to be finally approved by IAVS Council during its meeting end of July 2012 in Mokpo, South Korea. The modifications since the version accepted last September are documented below; the new version with incorporated changes is available from the EDGG homepage.

*Stephen Venn, 11th June 2012*

**Article 1. Name, Affiliation**
2. EDGG is a Working Group of the International Association for Vegetation Science (hereafter IAVS), and consequently these Bylaws are subsidiary to the Statutes and Bylaws of IAVS.

**Article 3. Membership and Fees**
5. It is the responsibility of members to provide the Membership Administrator with a functioning e-mail address. Membership is terminated when no functioning e-mail address is available to the Membership Administrator.

**Article 4. Executive Committee**
1. Responsibilities.
d. The Executive Committee will have the following main responsibilities:
iv. Organisation of General Assemblies and of elections to the Executive Committee as well as conducting electronic ballots of the General Membership as required;
4. Assignment of Responsibilities
a. The Executive Committee designates from its membership one Officer for each of the six required functions:
i. Representative to the IAVS, who must be a member of the IAVS.
5. Representation and Decisions
b. All decisions of the Executive Committee are taken by the whole Executive Committee unless they belong to the specific responsibilities of a certain Officer. Also, fundamental decisions regarding the Bulletin of the EDGG, the EDGG homepage and the European Dry Grassland Meetings are to be made by the whole Executive Committee. The majority of the Executive Committee can overrule any individual decision of one of its Officers.
c. Decisions by the Executive Committee are made by a simple majority of its members (not votes), except in issues which require a three-quarter majority in accordance with these Bylaws.
6. Reporting.
Each year during the General Assembly, the Executive Committee shall present an annual report of its activities since the previous General Assembly and those planned for the future. A copy of this report shall be submitted to the Secretary of IAVS.

**Article 5. General Assembly**
4. If at least 40 EDGG members from at least 10 different countries are represented in a General Assembly and no country represents more than one third of these members (Qualified General Assembly), its decisions are binding over the Executive Committee; otherwise they are recommendations that can be overruled by the majority of the Executive Committee.
5. The Executive Committee shall approve the minutes, and the Secretary-General shall distribute them in the Bulletin of the EDGG.

**Article 7. Regional or Topical Subgroups and Special Committees**
2. Subgroups can be dissolved by a three-quarter vote of the Executive Committee or by a simple majority of either a Qualified General Assembly or an electronic ballot of the General Membership.

**Article 9. Modification of the Bylaws**
The Bylaws can be modified by
c. through a vote by three quarters of all Executive Committee members.

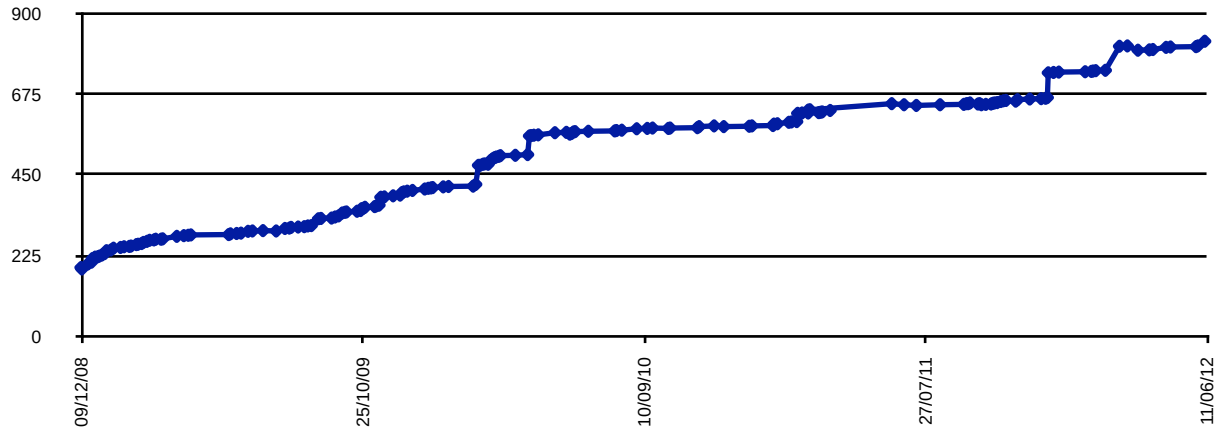
**Article 10. Status as IAVS Working Group**
The status of being a Working Group of the IAVS can be terminated at any time by a
b. decision of the IAVS Council.

**Article 11. General Prohibitions and Finances**
1. The General Prohibitions stated in Article 12 of the IAVS Statutes apply to the EDGG.
2. If the EDGG is to handle its own financial assets, this must be done through the accounts of the IAVS. The EDGG Executive Committee shall arrange with the IAVS Governing Board that ensures that such money is exclusively used according to the intentions of the EDGG.

**Article 12. Dissolution**
A decision on the dissolution of the EDGG can only be made by a majority of votes in an electronic ballot among the General Membership.

## Membership development

The number of EDGG members has received a boost through the Steppe conference in Erfurt (see Baumbach, this Bulletin). As of 10 June 2012, we had 822 members from 51 countries (see Fig. 1). The highest densities of members are found in Greece (11.5 members per 1 million inhabitants), Estonia (7.4), Luxembourg (6.6), Slovakia (6.5) and Slovenia (4.5).




## New EDGG Special Features: invitation to contribute

In connection with the European Dry Grassland Meeting 2012 in Prespa, we have launched two new Special Features in international journals.

(a) Dry Grassland Special Feature in *Tuexenia* 33 (2013), guest-edited by Thomas Becker (DE), Dobromil Galvánek (SK), Triin Reitalu (EE), Eszter Ruprecht (RO) & Jürgen Dengler (DE). *Tuexenia* (http://www.tuexenia.de/index.php?id=14&no_cache=1) is already included in the Web of Science and in SCOPUS. Preferred topics are papers dealing with dry grasslands in temperate and boreal Europe plus the articles from the EDGG Research Expeditions. Oversize supplements (e.g. vegetation tables and maps) and colour figures are possible without charge.

(b) Dry Grassland Special Feature in *Annali di Botanica* – Coenology and Plant Ecology, guest-edited by Iva Apostolova (BG), Romeo di Pietro (IT), Rosario Gavilán (ES), Ioannis Tsiripidis (GR) & Jürgen Dengler (DE). *Annali di Botanica* (http://ojs.uniroma1.it/index.php/Annalidibotanica/index) has applied to be included in WoS and SCOPUS, and we are optimistic that they will be accepted in the near future. Preferred topics are papers dealing with dry grasslands in submediterranean Europe and the circum-Mediterranean region.

All EDGG members, not only those who participated in the conference, are invited to contribute manuscripts of good quality to these two attractive Special Features. The procedure is the same in both cases:

(1) You need to submit an abstract of your planned article to dengler@botanik.uni-hamburg.de by 10 July 2012. This abstract does not necessarily need to be the final one, but it should allow a clear evaluation of the merits of your contribution. The Abstract must be submitted as a Word document and contain the following items:

(a) Specification of the journal (*Tuexenia, Annali di Botanica*)

(b) Title

(c) Full names, affiliations and e-mail addresses of ALL authors, with indication of the corresponding author

(d) A structured abstract of typically up to 300 words in length, normally consisting of the paragraphs Question(s) – Location – Methods – Results – Conclusions

(e) Keywords

(f) Indication of a date when you realistically could submit your full paper.

(2) The abstracts received in time will be evaluated by the respective teams of guest editors, who will then decide from which authors to invite or conditionally invite a sumbmission, or reject.

(3) Authors will be notified about this decision a few weeks after the deadline for abstract submission together with a defined deadline for submission of the full paper. The approximate deadlines for submission of invited papers will be October/November 2012.

(4) The invited full papers that are received in time will undergo a regular peer-review process with one of the EDGG-appointed guest editors serving as co-ordinating editor. Note that only invited papers can be submitted to any of the Special Features.

If you have any questions about the procedure or the suitability of your topic, do not hesitate to contact me or one of the other guest editors.

*Jürgen Dengler*

# EDGG Special Feature in Tuexenia 32

The new volume 32 of Tuexenia, the long-standing publication partner of EDGG, just went to press and will be available within a few weeks (open access online via the journal homepage: http://www.tuexenia.de/index.php?id=14&no_cache=1). It will contain the 7th Dry Grassland Special Feature in Tuexenia with the following articles (which will be made available via the EDGG homepage after publication, too). Thanks to all who contributed as authors, reviewers, and guest editors:

Galvánek, D., Becker, T., Dengler, J. (in press): Biodiversity, syntaxonomy, and management – Editorial to the 7th Dry Grassland Special Feature (with a bibliometrical evaluation of the series). – *Tuexenia* 32.

Keetner-Ostra, R., Aptroot, A., Jungerius, P.D. & Sýkora, K.V. (in press): Vegetation succession and habitat restoration in Dutch lichen-rich inland drift sands. – *Tuexenia* 32.

Jeschke, M. (in press): Cryptogams in calcareous grassland restoration: perspectives for artificial vs. natural colonization. – *Tuexenia* 32.

Becker, T., Schmiege, C., Bergmeier, E., Dengler, J., Nowak, B. (in press): Nutrient-poor grasslands on siliceous soil in the lower Aar valley (Middle Hesse, Germany) – neglected vegetation types in the intersection range of four classes. – *Tuexenia* 32.

Dengler, J., Becker, T., Ruprecht, E., Szabó, A., Becker, U., Beldean, M., Bita-Nicolae, C., Dolnik, C., Goia, I., Peyrat, J., Sutcliffe, L.M.E., Turtureanu, P.D., Uğurlu, E.: (in press) Festuco-Brometea communities of the Transylvanian Plateau (Romania) – a preliminary overview on syntaxonomy, ecology, and biodiversity. – *Tuexenia* 32.

The Editorial of this Special Feature contains a bibliometrical analysis of the past six Dry Grassland Special Features. It was interesting to note that articles from the EDGG Special Features were cited approximately four times as often in international journals as other *Tuexenia* articles of the same year. The Editorial also contains a brief report with some nice photographs of the EDGG activities from the preceding year (EDGM 2011 in Uman', Research Expedition 2011 in Bulgaria, Research Expedition 2012 in Sicily).

*Jürgen Dengler*

# Call for large-scale grassland classification papers

The production of the Virtual Special Feature (VSF) of *Applied Vegetation Science* (AVS; impact factor = 1.802) on "Towards a consistent classification of European grasslands". Guest editors are Jürgen Dengler (DE), Erwin Bergmeier (DE), Wolfgang Willner (AT) and Milan Chytrý (CZ). This VSF is a joint initiative of the 8th European Dry Grassland Meeting 2011 in Uman and the 20th Workshop of the European Vegetation Survey (EVS) 2012 in Vienna. The first call was announced last year, and already 15 papers have been invited for submission then (and the first of which are in the review process now). After the EDGG conference in Prespa and the EVS conference in Vienna, we are now able to offer a second chance to propose articles. Note that not only dry grasslands are considered here, but grasslands in a wide sense, i.e. natural, semi-natural and anthropogenic types, and also vegetation units dominated by other graminoids than *Poaceae* are acceptable. In particular, we are keen to attract manuscripts describing high-quality, large-scale analyses. Note that all proposed papers must be submitted as a structured abstract first and only contributions that are evaluated positively at this stage will have the possibility to submit a manuscript. Therefore, you should prepare your abstract very carefully following the guidelines available from Jürgen Dengler (dengler@botanik.uni-hamburg.de). Deadline for abstract submission: 31 July 2012.

If you have relevé data from one of the regions and syntaxa covered by papers already invited, you might also contact their teams of authors and ask them whether you could join if you contribute valuable data. This is particularly true for dry grasslands in the eastern half of Europe where five large-scale classification papers of dry grasslands are invited (i.e. Germany, Nordic-Baltic region, 2x Pannonian-Carpathian-Pontic region, Central Balkan Peninsula) are invited and in preparation. The mentioned teams of authors are still seeking to fill the gaps in their datasets and any contributions of digital relevé data would be greatly appreciated.

*Jürgen Dengler*

*Linum flavum. Photo: P. Chmielewski*

# The 10th European Dry Grassland Meeting

**"When theory meets practice: Conservation and restoration of grasslands"**

**24th – 31st May 2013, Zamość, Poland**

**First circular**

**Main topic of the meeting**

Conservation and restoration of grasslands

(Information about subtopics will be provided in the Second Circular.)

**Preliminary time schedule**

24.–26.05.2013: Pre-symposium excursion "Dry grasslands of *Koelerio-Corynephoretea* in central and eastern Poland"

26.05.2013 (evening): Registration and accommodation in Zamość

27.05.2013: Registration and accommodation in Zamość, opening ceremony, oral and poster sessions

28.05.2013: Oral and poster sessions, EDGG General Assembly, Grassland Party

29.–31.05.2013: Post symposium excursions "Xerothermic habitats between the Bug and Vistula rivers"

31.05.2013 (evening): Arrival to Lublin

**Location**

The 10th European Dry Grassland Meeting will take place at the Orbis Hotel, located in the renaissance old town of Zamość (SE Poland, Lublin province; approx. 66 000 inhabitants), which is listed as a UNESCO World Heritage Site. Zamość is situated about 80 kilometers from Lublin (province capital; 348 000 inh.), 250 km from Warsaw (the capital of Poland; 1 720 000 inh.) and 150 km from Rzeszów (the capital of the Subcarpathian province; 178 000 inh.). The nearest airports are located in Warsaw and in Rzeszów.

The Lublin region is known as one of the most important hotspots of xerothermic vegetation in Poland. The grasslands that occur here are small and cover up to several hectares. In total, the area of xerothermic grasslands is ca. 200 ha which is only 0.02% of the whole voivodeship (province). The largest patches of xerothermic vegetations are associated with large river valleys – Vistula, Bug, Wieprz, and small patches occur on the limestone hills. Whilst these grasslands cover a relatively small area, they are species-rich habitats. Among the ca. 1700 species present in the whole Lublin region 25% are strictly associated with xerothermic habitats and nearly 200 can be considered as xerothermic specialists (mainly from *Festuco-Brometea* class). Many of these species are on the NW border of their distribution range in the Lublin region.

*"Armenian houses" in the Zamość old town square. Photo: Piotr Chmielewski*

The majority of xerothermic grasslands in the Lublin region are associated with calcareous soil. Specific grasslands with low vegetation composed of calciphilous species occur on relatively thin rendzina soil. The species occurring on these grasslands are: *Inula ensifolia, Aster amellus, Cirsium pannonicum, Linum flavum, Carex humilis* and *Prunella grandiflora*. On thicker soils (chernozem, rendzina soil with a well developed humus layer), the grasslands are characterized by higher vegetation biomass and relatively high plant cover, with high proportions of *Salvia pratensis* and *Brachypodium pinnatum*. On the fine-grained loess soils *Thalictro-Salvietum pratensis* grasslands occur with relatively high vegetation cover and a high proportion of *Elymus hispidus, Salvia pratensis, Carex praecox* and *Thalictrum minus.* At particulary dry places with high insolation, some patches of grasslands with *Stipa capillata, S. joannis, Festuca valesiaca* and *F. rupicola* can be found. In case of loess soils that have been exposed to extreme grazing in the past, specific grasslands with two grass species *Festuca rupicola* and *Koeleria macrantha* occur. Moreover, in the Lublin region, some associations of xerothermic shrubs of high conservation value can be found: *Prunetum fruticosae* phytocoenosis (Subcontinental peri-Pannonic scrub with *Prunus fruticosa* 40A0*) and *Juniperus communis* associations (*Juniperus communis* formations on xerothermic grasslands 5130).

**Language**

English

**Accommodation**

Accommodation and meals during the oral and poster sessions as well as during the post symposium excursions will take place in the Orbis "Zamojski" Hotel in Zamość. The history of the antique apartment buildings in which the hotel is located, dates back to the end of the sixteenth century. The hotel's prime location in the heart of the Old Town, next to the City Hall, the former Academy and the Zamoyski Palace, promises a memorable stay. At the hotel, double rooms (including 2 rooms adapted for disabled persons), single rooms, 5 SUPERIOR double rooms and 4 suites are available. Room facilities: free internet access, telephone, television; tea and coffee tray. Pets are welcome. The accommodation capacity and the conference hall's seating capacity at the Orbis "Zamojski" Hotel is limited to 100 persons.

Accommodation during the pre-symposium excursion will be organinized at Drohiczyn and Kamieńczyk. The maximum number of participants in the pre-symposium trip is 40 persons.

*"Orbis" hotel – the venue of the meeting.*
*Photo: Piotr Chmielewski*

**Conference publications**

All participants will receive a Book of Abstracts, which will also be published online on the EDGG homepage www.edgg.org/edgg_meeting_2013.html (in preparation).

As in previous years, there will be a **Dry Grassland Special Features,** with contributions from the conference programme published in international journals, guest-edited by experienced EDGG members. It is planned to have at least two Special Features, one in *Tuexenia* and one in *Annali di Botanica – Coenology and Plant Ecology*, and additional Special Features/Issues options are possible. (More information concerning conference publications will be provided in the second circular.)

**Prizes**

As in previous EDGM, prizes will be given to young scientists (less than 35 years old) who excellently present their researches in the oral or poster sessions.

**Registration**

More detailed information on the conference will successively be made available on the conference homepage www.edgg.org/edgg_meeting_2013.html. Registration will be open from autumn 2012 on the conference homepage (in preparation). EDGG members will be notified when the registration period starts.

**Fees**

Preliminary conference fee: 60 €/person

Preliminary accommodation costs: 35 €/person/day (175 € in total – 5 days)

Preliminary pre-symposium excursion (3 days): 100 €/ person

Reduced fee rates will be provided for students and participants from low-income countries. No fee will be charged for oral contributors.

Important: the costs declared above are subject to the euro/zloty exchange rate.

**Contact persons**

Katarzyna Barańska, Naturalists' Club, 1 Maja 22, 66-200 Świebodzin kasia_baranska@interia.pl (for all matters concerning organization, programme, dedlines, fees, accommodation etc.)

Łukasz Kozub, Department of Plant Ecology and Environmental Conservation, Warsaw University, Al. Ujazdowskie 4, 00-478 Warszawa, lukasz.kozub@biol.uw.edu.pl (for the pre-symposium excursion)

**Pre-symposium excursions**

*Day I (24.05.2013)*

Dry grasslands in the vicinity of Warsaw:

1) "Niepust" and "Grochalskie Piachy" in Kampinos National Park: *Koelerio-Corynephoretea* dry grasslands on active inland dunes, *Koelerion glauce* dry grasslands and heathlands. Populations of *Koeleria glauca, Silene borysthenica, Dianthus arenarius, Gypsophila fastigiata, Arctostaphylos uva-ursi, Stereocaulon condensatum, S. incrustatum.*

2) Dry grassland near Kikoły village: small but species rich dry grassland threatened by urbanisation pressure. Big populations of *Pulsatilla pratensis, Silene otites, Vincetoxicum hirundinaria, Veronica spicata, Scabiosa ochroleuca, Dianthus cartusianorum, Potentilla arenaria, Koeleria glauca, Phleum phloides, Salvia pratensis, Hieracium echioides, Cladonia foliacea.*

3) Dry grasslands on the slopes of the Bug river valley between Serock and Wyszków: relicts of pastures. Very picturesque sites with such species as *Koeleria glauca, Helianthemum nummularium, Phleum phleoides, Dianthus carthusianorum, Campanula bononiensis, Silene otites, Salvia pratensis.*

4) Kamieńczyk: Traditionally managed (grazed) vast dry grasslands of *Armerion maritimae* with small *Koelerion glauce* patches within the Bug river floodplain with such species as *Petasites spurius, Armeria maritima* ssp. *elongata, Thymus serpyllum, Astragalus arenarius, Silene tatarica, Potentilla arenaria, Salsola kali* ssp. *ruthenica, Plantago arenaria, Diploschistes muscorum.*

*Day II (25.05.2013)*

Dry grasslands of Podlasie (NE Poland):

1) Czartoria: traditionally managed dry grasslands of *Koelerio-Corynephoretea* within Narew river floodplain. Vast areas covered with diverse grazed grasslands from *Koelerio-Corynephoretea* with high abundance of old *Juniperus communis* shrubs.

2) Brzeziny Kapickie: exceptionally species rich dry grasslands on dunes forming mineral islands within a rich fen in Biebrza river valley. Localities of *Iris aphylla, Thesium ebracteatum, Pulsatilla pratensis, Dracocephalum ruyschiana, Dianthus arenarius, Anthericum ramosum, Prunella grandiflora, Centaurea pseudophrygia, Anemone sylvestris, Orobanche purpurea, Pulmonaria angustifolia.*

3) Haćki: dry grasslands on kame hills. Rich stand of *Anemone sylvestris*, also present *Gentiana cruciata, Prunella grandiflora, Scabiosa ochroleuca, Phleum phloides, Scorzonera humilis.*

*Day III (26.05.2013)*

Dry grasslands of the Bug river valley.

1) Kózki: floodplain dry grasslands of *Koelerio-Corynephoretea* managed with sheep grazing for conservation purposes. Vast areas of moss and lichen dominated sandy grasslands.

2) Bużyska: Traditionally managed dry grasslands within the Bug river floodplain opposite of Drohiczyn. Beautiful view of the historic town of Drohiczyn. A mosaic of *Armerion elongatae* and *Koelerion glaucae* grasslands with species as *Silene otites, S. tatarica, Dianthus carthusianorum, Koeleria glauca, Scabiosa ochroleuca, Petasites spurius, Armeria maritima* ssp. *elongata, Astragalus arenarius.*

**Post symposium excursions**

*Day I (29.05.2013)*

1) "Popówka" nature reserve (established in 1988; 50 ha) is one of only a few places in Poland where a population of *Spermophilus suslicus* is protected. The reserve is a part of the Natura 2000 site PLH060016. The Popówka reserve is actively managed by cattle grazing. It is important to bring binoculars with you on this trip!

2) "Zachodniowołyńska Dolina Bugu" is a Natura 2000 site PLH060035 which protects a fragment of the Bug river valley near the Ukrainian border. The steep loess slopes near the village of Czumów are home to a high number of rare plant species of *Thalictro-Salvietum pratensis: Echium russicum, Gypsophila paniculata, Chamaecytisus albus, Nepeta pannonica, Peucedanum alsaticum, Verbascum phoeniceum* and more.

2) "Skarpa Dobużańska" is a nature reserve (established in 1989; 5 ha) where a steep, limestone slope of the Huczwa river is protected, together with its rare xerothermic plants, such as *Echium russicum, Thymus marschallianus, Anemone sylvestris, Verbascum phoeniceum* or *Achillea setacea*. The reserve is a part of the Dobużek Natura 2000 site PLH060039. The "Skarpa Dobużańska" reserve is actively managed by cattle grazing.

After the excursion it will be a possibility to take a guided tour through Zamość.

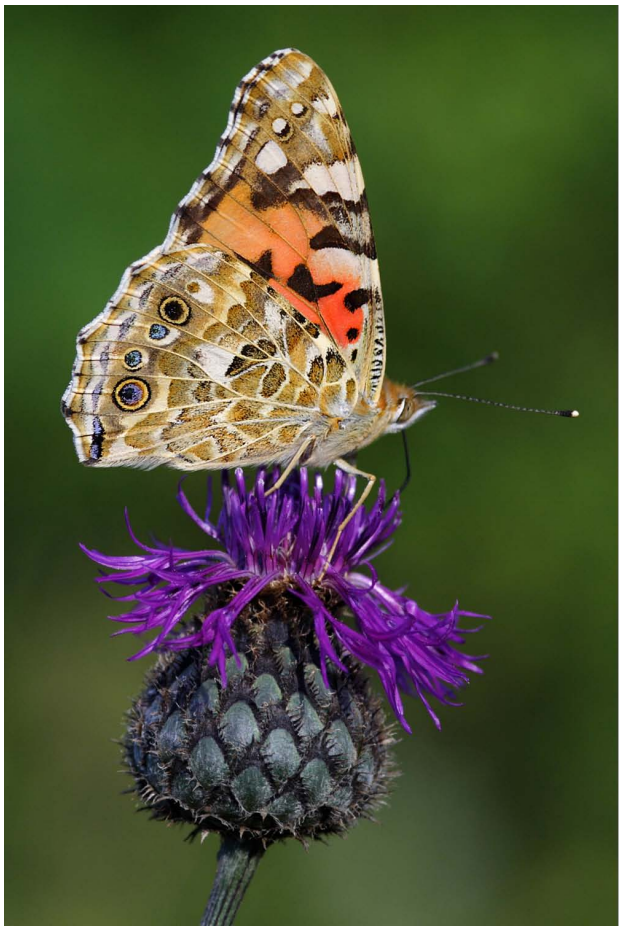
*Day II (30.05.2013)*

1) "Biała Góra" site of ecological use (established in 1996; 33 ha) located on the SW slopes of a vast limestone hill (Biała Góra, 350 m) and is an important dry grassland and fringe vegetation (*Festuco-Brometea, Trifolio-Geranietea sanguinei*) site. The largest population of *Senecio macrophyllus* in Poland is located here.

2) "Żurawce" Natura 2000 site PLH060029 consists of 3 limestone slopes where interesting flora can be found: *Cirsio-Brachypodion* pinnati grasslands, fringe vegetation and *Juniperus communis* scrub (5130 Natura 2000 habitat) with high number of rare orchid and broomrape species (e.g. *Orchis militaris, O. purpurea, Cyprypedium calceolus, Carlina onopordifolia* and others). In adjacent crop fields, numerous rare weeds of *Caucalidion lappulae* grow: *Conringia orientalis,*

*Loess river slopes near Czumów. Photo: Piotr Chmielewski*

*The vicinity of the Żurawce site. Photo: Piotr Chmielewski*



*Vanessa cardui. Photo: Piotr Chmielewski*

*Caucalis platycarpos*, *Anagallis foemina*, *Muscari comosum*. Żurawce Natura 2000 site is actively protected mainly by forest and shrubs cutting and mowing.

3) "Horodysko" site of ecological use is a place where a patch of rare *Prunetum fruticosae* phytocoenosis is located (40A0 Natura 2000 habitat).

*Day III (31.05.2013)*

1) "Żmudź" nature reserve (established in 1980; 5,8 ha) is home to a particularly large patch of *Juniperus communis* scrub together with calcareous vegetation with *Linum flavum*, *Gentiana cruciata*, *Tymelaea passerina*, *Cyprypedium calceolus* and *Astragalus onobrychis*. The whole reserve is a part of the Natura 2000 site PLH060075.

2) A location in the vicinity of the Męćmierz village where valuable sandy and stony grasslands of the Vistula river valley can be found. The most interesting plant species include *Orobanche arenaria*, *Ornithogalum collinum* and *Iris aphylla*. Some of the grasslands are protected as a Przełom Wisły w Małopolsce Natura 2000 site PLH060045.

The excursion will end in Lublin.

*Misumena vatia on a Cypripedium calceolus flower lip. Photo: Piotr Chmielewski*

*Juniperus communis, Żmudź reserve. Photo: P. Chmielewski*

*Inuletum ensifoliae near Męćmierz. Photo: P. Chmielewski*

**Organizers**

European Dry Grassland Group (EDGG) (www.edgg.org) was established in August 2008. It is as an official group of International Association for Vegetation Science (IAVS, www.iavs.org) and has now more than 800 members from 50 countries. Its basic aims are to compile and to distribute information on research and conservation in dry grasslands beyond national borders, and to stimulate active cooperation among dry grassland scientists, NGO's and all who work with or are interested in dry grasslands.

Naturalists' Club (Klub Przyrodników) (www.kp.org.pl) is a social association conducting activities to protect nature and educate society about the environment. It was established in 1983, but officially registered in 1989. The Club is mainly active in western Poland with its headquarters in Świebodzin, but many activities and initiatives are conducted throughout the entire country. The Club currently has over 400 members.

**Supporting organizations and institutions**

International Association for Vegetation Science (IAVS) (www.iavs.org) is the mother organization of the EDGG; the original precursor of this organization was the International Phytosociological Society (IPS), which was founded in 1939. IAVS is a worldwide union of scientists and others interested in theoretical and practical studies of all aspects of vegetation. The main goals of the IAVS are to facilitate personal contacts among vegetation scientists all over the world and to promote research in all aspects of vegetation science and its applications.

LIFE+ Programme (ec.europa.eu/environment/life) is the European Union's financial instrument supporting environmental and nature conservation projects throughout the EU, as well as in some candidate, acceding and neighbouring countries. It is a continuation of LIFE I-III Programmes, which were established in response to the need to support activities to counteract the negative changes occurring in the natural environment. Since the establishment of LIFE I in 1992, LIFE has financed 3506 projects in various countries.

National Fund for Environmental Protection and Water Management (www.nfosigw.gov.pl) is the most important national governmental institution responsible for financing environmental protection in Poland. It has been in existance since 1990. From the moment Poland entered the European Union, the main task of the National Fund has been the effective and efficient use of EU funds for developing and modernizing the infrastructure for environmental protection, as well as to protect nature in all the country.

Department of Geobotany (Institute of Biology) of Maria Skłodowska University in Lublin was found in 1992. The main areas of investigations are: flora and vegetation of natural and synanthropic areas, phytosociology of critical plant associations, expansion processes of alien species.

Department of Plant Ecology and Environmental Conservation (Institute of Botany) of Warsaw University is one of the main Polish research centers in the field of plant ecology and phytogeography in which geobotanical studies have been conducted for more than 40 years. The main subjects of research are: the structure and dynamics of plant populations, phytocoenoses and ecosystems, the phytogeography and synanthropization of plant cover, the ecology of wetlands and dry grasslands (especially the relationships between vegetation and abiotic factors), the biogeochemistry, the nature conservation and landscape management.

# Impressions from the 4th EDGG Research Expedition to Sicily: community composition and diversity of Mediterranean grasslands

*Riccardo Guarino[1], Thomas Becker[2], Iwona Dembicz[3], Christian Dolnik[4], Zygmunt Kacki[5], Łukasz Kozub[3], Martin Rejžek[6], & Jürgen Dengler[7]*

*We report on the 4th EDGG Research Expedition, conducted on the Italian island of Sicily in spring 2012. A group of 14 scientists from five countries studied the variety of the dry grassland vegetation using standardised sampling procedures (nested-plot series and phytosociological relevés of 10-m² plots). All terricolous plants superficially present in the plots were sampled, including perennial and annual vascular plants, bryophytes, and lichens. The data will be used for analyses of scale-dependent diversity patterns and species-area relationships, as well as for studying vegetation-environment relationships and performing phytosociological classification. Later, the data will be entered in public vegetation-plot databases. The fact that scientists from different phytosociological schools participated in the expedition, gave rise to important methodological discussions, which we briefly highlight in this report.*

Keywords: biodiversity; bryophyte; lichen; nested plot; vascular plant; vegetation classification; vegetation-plot database.

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## Introduction

The fourth EDGG Research Expedition took place in Sicily, right at the center of the Mediterranean Region, from 29 March to 5 April 2012. The event was organised by Riccardo Guarino (University of Palermo), Gian Pietro Giusso del Galdo (University of Catania), and Jürgen Dengler (EDGG Expedition Coordinator, Lüneburg, Germany). The aim of the expedition was the investigation of biodiversity patterns in the thermo-Mediterranean annual and perennial dry grasslands, with specific reference to environmental factors and spatial scales. In addition, one day was spent on Mt. Etna, for data-sampling along a transect on the NE flank of the mountain, from the thermo-Mediterranean belt up to the timber line (for an overview of the landscapes studied, see Guarino 2011).

An international team of 14 scientists from five countries (Czech Republic, Germany, Italy, Latvia, Poland) intensively studied a wide variety of dry grassland types on different substrata. Local students interested in vegetation and/or field botany were invited to participate for as many days as was convenient to them.

While Galvánek et al. (in press) already briefly reported from the expedition, we will give some more details here


*The expedition crew with the EDGG logo. This is not a coastal dune, but a "mountain dune" made of H2O at Mt. Etna. Photo: J. Dengler, 03.04.2012*

and use the opportunity of this full-colour journal to illustrate the beauty of the Sicilian grasslands and their plants with some plates.

*Mediterranean picnic amidst the dry grasslands in the Sciare di Mazara. Photo: J. Dengler, 29.03.2012*

**Methods**

We applied standardised sampling approaches, as proposed by Dengler (2009) and as applied in previous EDGG Expeditions (Dengler et al. 2009, in press) to allow large-scale comparisons and syntheses. We collected a set of 21 biodiversity plots (i.e. nested-plot series 0.0001, 0.001, 0.01, 0.1, 1, 10, and 100 m²) and 67 phytosociological relevés (10 m²; including those from the corners of the biodiversity plots). In both plot types, we recorded all terricolous components of the vegetation according to the vertical projection (shoot presence or any-part system; see Dengler 2008), including perennial and annual vascular plants as well as bryophytes and lichens. Only saxicolous cryptogams were excluded from sampling due to logistic constraints (we otherwise would have needed to take many stones with us to determine the cryptogams on them). In contrast with the traditional phytosociological approach, we did not use the 7-scale or 9-scale cover-abundance values, but directly estimated percentage coverage of the plants. This avoids mathematical problems when analysing with a mixed scale and allowing better differentiation at the lower end of the scale, where in dry grasslands the majority of plants are found (it is certainly something different if a species is occurring with 1% or only 0.01% cover). Slope, aspect, and microrelief were measured in the field, and the soil depth and its variability determined with a pointed iron pole, 12.5 mm in diameter and 80 cm in length Mixed soil samples were collected from all 67 10-m² plots. They will be used to determine texture class, pH, C and N content, and possibly other relevant parameters.

Plant species were mostly determined in the field; specimens of species that were not confidently determined in situ were collected and mostly identified during the evenings, where we had arranged working space in our accommodations with many floras, stereo microscopes, microscopes, etc. Vascular plants were mainly identified using Flora Europaea (Tutin et al. 1968–1993), Flora d'Italia (Pignatti 1982), and the still unpublished interactive identification tool for the planned second edition of the latter (Guarino et al. 2011). Bryophytes and lichens were determined using various floras, most prominently Frey et al. (2006). We also commenced entering the data already during the expedition.

Those plant samples that could not be determined to species during the expedition where taken by the specialists in our team for later determination, namely the vascular plants by R. Guarino, and the cryptogams by C. Dolnik and I. Bruchmann. Several expedition members are presently finishing data entry and standardise taxonomic concepts, while Ł. Kozub has taken all the soil samples for analyses in the laboratory of his department. This shows that also the analytical part of the expedition is a highly collaborative enterprise.

**Vegetation types studied**

Most of our plots fell into the *Lygeo-Stipetea* class. The most frequently recorded vegetation-types were the perennial grasslands occurring on limestones (*Avenulo-Ampelodesmion mauritanici*) and on clay (*Moricandio-Lygeion sparti*). On Mt. Etna, some semi-ruderal stands with *Bromo-Oryzopsion miliaceae* vegetation were also surveyed.

As concerns the annual dry grasslands, we sampled both *Tuberarietea* and *Stipo-Trachynietea* vegetation, occurring either on sand (*Alkanno-Maresion nanae*) or on alkaline substrata (*Trachynion distachyae* and *Sedo-Ctenopsion gypsophilae*).

We found that the species richness of the studied vegetation types ranged from poor (grey dunes) to rich (mostly grazed inland sites on limestone). Already our raw data allow to state that nowhere were these stands as rich in species rich as the temperate and hemiboreal dry grasslands in Transylvania, the White Carpathians, Estonia, or Öland (Dengler et al. 2009, in press a, Wilson et al. in press). While some stands were clearly dominated by annual plants, those with an upper layer of perennial grasses e.g. *Ampelodesmos mauritanicus* or *Lygeum spartum*, always had a significant number of annual vascular plants in the gaps between the grass tussocks. In the majority of communities, bryophytes and lichens clearly contributed to community assembly, a fact that is commonly overlooked (or at least not recorded) in present-day phytosociological literature from the Mediterranean region (while J. Braun-Blanquet himself

*Long working days require a good food supply: traditional dinner in the Agroturismo at the foothills of Mt. Etna, where we stayed two nights (Photo: J. Dengler, 02.04.2012).*

mostly recorded the cryptogams not only in his Central European but also his Southern European relevés).

**Methodological reflections and discussion**

For all the grasslands studied, we discussed aspects and options for their conservation. The dune grasslands in particular are highly endangered due to massive touristic development at the sites and due to inappropriate measures for sand dune stabilizing (planting of exotic tree and shrub species, e.g. *Acacia* spp., *Eucalyptus* spp.). At other sites, however, grasslands are vulnerable to shrub encroachment due to the cessation of management by grazing On the other hand, we also encountered overgrazed pastures, dominated now mostly by spiny (e.g. *Cynara cardunculus*, *Galactites tomentosus*) and poisonous species (*Euphorbia* spp.).

The expedition also was a good framework to bring vegetation ecologists with different backgrounds together, resulting in intensive discussions during the expedition and hopefully initiating continued international cooperation in the future. Discussions in the field were mostly related to the following themes, that might be further discussed in joint papers: (1) pros and cons of our all-inclusive approach of temperate and boreal phytosociologists to the sampling approach of present-day Mediterranean phytosociologists, who traditionally do not consider annual and perennial as belonging to the same vegetation unit, even if they share a common physical space in the same plot, (2) differences in the vegetation between temperate and Mediterranean dry grasslands, (3) relevance of the non-vascular flora and differences in the bryophyte/lichen composition between Sicilian and Central European grasslands and (4) degree of naturalness of the communities found.

**Using the data**

Once the data are ready for analysis, we intend to use them for one or several joint publications analysing the compositional and diversity patterns in the Sicilian dry grasslands and their dependence on environmental factors (soils, climate). Of particular interest will be two aspects:

(1) Evaluation of validity of the traditional phytosociological classification of Mediterranean grasslands when all plants that co-occur in the plots are considered and not only pre-defined guilds.

(2) Comparison of the diversity patterns and species-area functions with those found in previously studied temperate and hemiboreal grasslands.

We plan to prepare a first paper for the series Dry grasslands in …: preliminary overview on biodiversity, ecology and syntaxonomy, which has recently been started in Tuexenia with a study based on the data from the 1st EDGG Research Expedition (Dengler et al. in press a). After such an initial publication, we also envisage large-scale comparisons with other species-area data from the Mediterranean and sub-Mediterranean regions of Europe, e.g. from the 5th EDGG Research Expedition in Northern Greece (May 2012) or published data (e.g. De Bello et al. 2007).

In addition to creating a dataset of scale-dependent diversity patterns of vascular plants, bryophytes and lichens, the collected data can be used for inventory, monitoring, and targeting restoration of the biodiversity of the region. Once published, all samples will be available for researchers, government agencies, conservation organizations, and whoever is interested to learn more about the Sicilian dry grasslands. Our datasets will be included in two vegetation-plot databases registered in the Global Index of Vegetation-Plot Databases (GIVD; www.givd.info; see Dengler et al. 2011): (1) the Database Species-Area Relationships in Palaearctic Grasslands (GIVD-ID EU-00-003; Dengler et al. in press b) and (2) VegItaly (GIVD-ID EU-IT-001; Venanzoni et al. in press).

**Closing remarks and acknowledgements**

Lodging was carefully selected by the local organizers in order to relish a wide variety of different food and drink items that make Sicily well known around the world for its very Mediterranean dietary habits. So diversity was not only present in flora, vegetation, and landscapes, among the nationalities and scientific backgrounds of the participants but also in the food and beverages.

All participants feel extremely grateful to the Sicilian Institutions (Botanical Depts. of the Universities of Catania and Palermo) who supported the expedition by making freely available for the whole event a van and a Land Rover to travel around. These two powerful vehicles would not have driven such a long way, nor would the standard of the lodging have been so good without the financial support of Forum Plinianum, a scientific association chaired by Prof. Sandro Pignatti, which is gratefully acknowledged. Finally, we thank Stephen Venn for improving our English language usage.

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*Visit at the Botanical Garden in Palermo at the last evening. Prof. Werner Greuter, a leading specialist of the Mediterranean flora, is showing us his working space in the Herbarium Mediterraneum Panormitanum. Photo: J. Dengler, 04.04.2012*

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In the following pages we present several plates of photos from the expedition. Unless otherwise stated their author is J. Dengler.

*The very first biodiversity plot in Sciare di Mazara*

*Determination of cryptogams*

*Biodiversity plot at Monte Cofano. Photo: I. Dembicz*

*The expedition vans at the south coast*

*Evening work after a plentiful dinner*

*Biodiversity plot from bird's eye view*

*Biodiversity plot in Bosco di Santo Pietro. Photo: T. Becker*

*Kilimanjaro? No, just a biodiversity plot at Mt. Etna in fog and rain. Photo: T. Becker*

*Moraea sisyrinchium*
*Photo: T. Becker*

*Tetragonolobus purpureus*

*Orchis italica*

*Orobanche sanguinea*

*Tuberaria vilossissima*

*Orchis longicornu*

*Silene colorata*

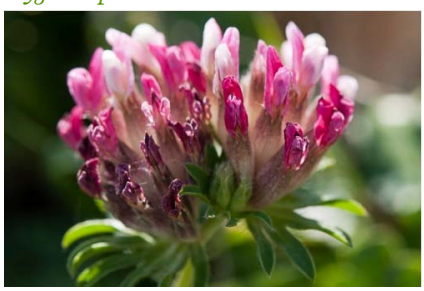
*Astragalus caprinus*

*Convolvulus cneorum*

*Ophrys speculum*

*Lygeum spartum*

*Asphodeline lutea*



*Anthyllis vulneraria subsp. maura*

*Chamaerops humilis*

*Ophrys bertolonii*

*Semi-ruderal, limestone grassland, Monte Cofano*

*Pasture over limestone, Monte Cofano*

*Ampelodesmus mauretanicus grassland, Monte Cofano*

*Annual grassland, Monte Cofano*

*Gypsum grassland, Marina de Siculiana*

*Sedum caeruleum community on gypsum rocks. Photo: T. Becker*

*Dry grassland on clay with Lygeum spartum, Monte San Nicola*

*Grey dune community, Torre Manfria*

*Stipa capensis grassland, Torre Manfria*

*Annual grassland on acid sands, Bosco di Santo Pietro*

*Annual grassland on acid sands with Echium sabulicolum, Bosco di Santo Pietro*

*Cryptogam-rich, perennial grassland on acid sands, Bosco di Santo Pietro*

*Thermophilous grassland with Cenchrus ciliaris, Capo Zafferano*

*Cladonia symphycarpia*

*Cladonia convoluta*

*Terricolous, crustose lichen on sand*

*Diploschistes sp., crustose lichen on sand*

*Cladonia rangiformis*

*Pleurochaete squarrosa*

*Stereocaulon vesuvianum*

*Bryum cf. torquescens*

*Sicily is a cultural landscape since Millennia: ancient Greek temple in Segesta*

*Carboniferous rocks at Monte Cofano*
*Photo: I. Dembicz*

*Gypsum badlands in Southern Sicily*

*Coastal dunes in SE Sicily*

*Pasture land on poor sands ("Cork oak savanna")*

*NE flank of Mt. Etna*

Łukasz Kozub (PL)

Thomas Becker (DE)

Martin Rejžek (CZ)

Ieva Rove (LV)

Riccardo Guarino (IT)

Jürgen Dengler (DE)
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Eleonora Giarrizzo (IT)

# 21st Workshop European Vegetation Survey
# Vienna (Austria) 24-27 May 2012

*Excursion to halophytic vegetation at the Neusiedler See.*
*Photo: J. Dengler*

During the last week of May 2012, the workshop of the EVS working group of the IAVS took place in Vienna (Austria). The workshop was focussed on three topics: i) vegetation databases and large-scale classification; ii) biogeographical patterns of vegetation and iii) vegetation and global change. Almost 200 participants took part in the workshop. The scientific program consisted of 60 oral and 90 poster presentations. The mid-symposium excursions to three destinations (Vienna Woods, Neusiedler See and Danube alluvial forests)and the post-symposium excursion to Vienna Woods, were guided by the experts from the Vienna University, Vienna Institute for Nature Conservation and Analyses (VINCA) and Austrian Academy of Sciences. By means of selected photographs we would like to demonstrate the pleasant atmosphere of this event, which was perfectly organized by the organizing committee, led by Wolfgang Willner.

*Monika Janišová*

*Audience in the lecture hall, Vienna University (on the right above). Coffee break (on the right below).*
*Photo: J. Dengler*

*Joop Schaminée, Milan Chytrý and John Rodwell, three of five new elected members of the EVS Steering Committee.*

*Social dinner.*
*Photo: J. Dengler (also the upper left picture)*

*Neusiedler See, the destination of the mid-symposium excursion.*
*Photo: J. Dengler*

*Instruction by Thomas Wrbka at the Neusiedler See.*
*Photo: J. Dengler*

*Himmelswiese, another destination of the mid-symposium excursion. Photo: M. Janišová*

*Luise Schratt-Ehrendorfer demonstrating local flora.*
*Photo: M. Janišová*

*Perchtoldsdorfer Heide. Photo: M. Janišová*

*Post-symposium excursion. Photo: J. Dengler*

# International conference “Steppe habitats of Europe” from 3rd to 6th June 2012 in Erfurt

From 3rd to 6th of June 2012, the international conference “Steppe habitats of Europe - threat, conservation measures, and protection” took place in Erfurt (Thuringia, Germany). This conference was organized by the LIFE+-project “Conservation and development of the steppe grasslands in Thuringia” (LIFE07 NAT/D/0000213).

More than 170 participants from Germany, Austria, Switzerland, Hungary, Poland, Bulgaria, and Belgium, lots of them also members of the EDGG, discussed the present situation of steppe and other dry grassland types in Europe. During 2 ½ days, 36 presentations were given. The conference sessions encompassed the following main topics: (1) distribution of steppe relic species and steppe habitats in Europe in the chorological, ecological and vegetation history context, Natura 2000 (2) sub-Pannonian steppes of Central Europe (continental region), (3) sub-Pannonian steppes and loess-steppes of Central Europe (Pannonian region), (4) steppe habitats in Romania and Bulgaria - (continental region, steppe region and Black Sea region), (5) steppe habitats of the "Emerald Network" (Berne Convention), (6) EU-LIFE-projects and other projects for conservation and management of steppe habitats, and (7) ex situ-/in situ-conservation of steppe plants species.

The presenting authors clearly outlined that the preservation of dry grasslands depends in most regions on the maintenance of the traditional land use practises, particularly grazing. All conservation efforts will fail in the long-term unless the economical situation of the shepherds will be improved by the new EU-CAP (2014-2020).

Two excursions at the beginning and the end of the conference included three of the 13 areas of the LIFE-project “Steppe grasslands in Thuringia” and to south of the Kyffhäuser Mountains. The latter is the largest area with contiguous steppe grasslands in Germany with a size of approximately 100 hectares. In spite of the rainy weather, we had nice impressions, interesting discussions and some remarkable discoveries of steppe plant species. We hope that this meeting will promote cooperation and exchange of knowledge between scientists, practitioners and administration to enhance protection efforts of these unique dry grasslands.

We plan to publish a volume containing all the conference papers in the autumn. The Book of Abstracts of all oral and poster contributions (English and German) can be downloaded from the project website www.thueringen.de/de/tmlfun/themen/naturschutz/steppenrasen/tagung/content.html

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*Sub-Pannonian grassland dominated by Stipa pulcherrima and Galium glaucum at the Neunhügel hill near Bottendorf, one of the excursion destinations. Photo: H. Baumbach*

*View into the Auditorium. Photo: J. Dengler*

*Coffee break with poster session. Photo: J. Dengler*

*Discussion with the referents Wolfgang Willner, Kiril Vassilev, Erika Schneider and Károly Penksza. Photo: J. Dengler*

*The bridge Krämerbrücke in the medieval centre of Erfurt. Photo: J. Dengler*

*The Schwellenburg hill in the north of Erfurt (Keuper gypsum), one of the excursions destinations. Photo: J. Dengler*

*Participants visiting the new exhibition on steppe grasslands in the Natural History Museum of Erfurt. Photo: J. Dengler*

*The Natura 2000-site "Dry grasslands in the northwest of Erfurt" with its characteristic Keuper hills (Kippelhorn, Marolsberg, Steinberg, and Ringelberg). Photo: J. Dengler*

*Discussion of the excursion participants at the Schwellenburg hill. Photo: J. Dengler*

# Forum

*The Forum section offers the possibility to our members to post small requests or initiate discussions that might be interesting to other members as well.*

## Hay-making in Transylvania

Make friends, have fun, learn new skills and help to preserve valuable mountain hay meadows and their plants, wildlife and traditions in one of the last large-scale medieval landscapes of Europe.

This is a great opportunity for nature lovers and those interested in traditional culture and sustainable living to learn about the connections between nature and farming by doing physical work alongside local people and participating in the art and science of hay-making and related skills.

Your visit will help our projects to improve rural incomes, support traditional agriculture, understand the ecology and biology of important wetlands and meadows, and identify and protect key species and habitats in need of conservation.

**Hay-making course 15 to 21July**

A new opportunity to learn every aspect of traditional hay-making working alongside the Sárig family. July displays the outstanding meadow flowers and butterflies at their most spectacular.

**International Hay-making Festival 19 to 26 August**

Now in its fourth year, the Gyimes Hay-making Festival is a celebration of traditional skills and crafts related to making hay. The programme depends on the weather but should include mowing by scythe, making hay, a mowing competition, learning how to make traditional rakes and scythes with a local craftsman, visiting the cows in the summer pastures, making and tasting cheese, horse and cart rides, collecting wild herbs, enjoying local food, learning about meadow plants and animals, testing your skill in folk dances.

We can organise village accommodation, rail transfer from Miercurea Ciuc, airport transfers (from Tirgu Mures, Cluj-Napoca or Bucharest), and suggest a guide and an itinerary if you want to explore more of the area before or after the events.

Places are limited, so send expressions of interest to barbara.knowles@yahoo.co.uk. We can also organise tailor-made haymaking and other holidays in this beautiful region.

Organizers: László Demeter, Attila Sárig

Partner: Pogány-havas Microregional Association

Sponsors: Barbara Knowles Fund, Global Environment Facility Small Grants Programme and Naturvernforbundet i Buskerud from Norway

*Barbara Knowles*

# Recent publications of our members

*With this section, the contents of which will also be made available via our homepage, we want to facilitate an overview of* ***dry grassland-related publications*** *throughout Europe and to improve their accessibility. You are invited to send lists of such papers from the last three years following the style below to monika.janisova@savba.sk and rusina@lu.lv. We will include your e-mail address so that readers can request a pdf. For authors who own full copy-right, we can also post a pdf on the EDGG homepage. As we plan to publish a book about the European dry grasslands at some point in the future, under the auspices of the EDGG, we would appreciate if you could send a pdf (or offprint) of each of your dry grassland publications to dengler@botanik.uni-hamburg.de.*


Akasbi Z., Oldeland J., Dengler J. & Finckh M. (2012): Social and ecological constraints on decision making by transhumant pastoralists: a case study from the Moroccan Atlas Mountains. Journal of Mountain Science: 307–321.

Akasbi Z., Oldeland J., Dengler J. & Finckh M. (2012): Volume-biomass functions reveal the effect of browsing on three Moroccan dwarf shrubs. African Journal of Range & Forage Science 29: 31–36.

Baumbach B. (2012): Metallophytes and Metallicolous Vegetation: Evolutionary Aspects, Taxonomic Changes and Conservational Status in Central Europe, Perspectives on Nature Conservation - Patterns, Pressures and Prospects, John Tiefenbacher (Ed.), ISBN: 978-953-51-0033-1, InTech, Available from: http://www.intechopen.com/books/perspectives-on-nature-conservation-patterns-pressures-and-prospects/metallophytes-and-metallicolous-vegetation-evolutionary-aspects-taxonomic-changes-and-conservational

Bullock J. M., Galsworthy S. J., Manzano P., Poschlod P., Eichberg C., Walker K. & Wichmann M. C. (2011): Process-based functions for seed retention on animals: a test of improved descriptions of dispersal using multiple data sets. Oikos 120: 1201-1208.

Dengler J. (2012): Europäische Trockenrasen schlagen tropische Regenwälder. Biologie in unserer Zeit 42(3): 4–5.

Eichberg C., Storm Ch., Stroh M. & Schwabe A. (2010): Is the combination of topsoil replacement and inoculation with plant material an effective tool for the restoration of threatened sandy grassland? Applied Vegetation Science 13(4): 425-438.

Faust Ch., Eichberg C., Storm Ch. & Schwabe A. (2011): Post-dispersal impact on seed fate by livestock trampling - a gap of knowledge. Basic and Applied Ecology 12: 215-226.

Faust Ch., Storm Ch. & Schwabe A. (2012): Shifts in plant community structure of a threatened sandy grassland over a 9-yr period under experimentally induced nutrient regimes: is there a lag phase? Journal of Vegetation Science 23(2): 372-386.

Faust Ch., Süss K., Storm Ch. & Schwabe A. (2011): Threatened inland sand vegetation in the temperate zone under different types of abiotic and biotic disturbances during a ten-year period. Flora 206 (7): 611-621.

Janišová M., Hegedüšová K., Kráľ P. & Škodová I. (2012): Ecology and distribution of Tephroseris longifolia subsp. moravica in relation to environmental variation at a micro-scale. Biologia 67(1): 97–109.

Janišová M., Škodová I. & Hegedüšová K. (2012): Reproductive biology of Tephroseris longifolia subsp. moravica, an endemic taxon of European importance. Seed Science Research 22: 113–122.

Langhans T. M., Storm Ch. & Schwabe A. (2010): Regeneration processes of biological soil crusts, macro-cryptogams and vascular plant species after fine-scale disturbance in a temperate region: recolonization or successional replacement? Flora 205 (1): 46-60.

Lengyel Sz., Varga K., Kosztyi B., Lontay L., Déri E., Török P. & Tóthmérész B. (2012): Grassland restoration to conserve landscape-level biodiversity: a synthesis of early results from a large-scale project. Applied Vegetation Science 15: 264-276. DOI: 10.1111/j.1654-109X.2011.01179.x.

Süss K., Storm Ch. & Schwabe A. (2010): Sukzessionslinien in basenreicher offener Sandvegetation des Binnenlandes - Ergebnisse aus Untersuchungen von Dauerbeobach-tungsflächen. Tuexenia 30: 289-318.

Süss K., Storm Ch. & Schwabe A. (2011): Ried und Sand : Biotopverbund und Restitution durch extensive Landbewirtschaftung ; Ergebnisse und Erfahrungen aus dem gleichnamigen Erprobungs- und Entwicklungsvorhaben (E+E) des Bundesamtes für Naturschutz. Naturschutz und biologische Vielfalt, 110. Bundesamt für Naturschutz , Bonn-Bad Godesberg. ISBN 978-3-7843-4010-4

Török P., Miglécz T., Valkó O., Kelemen A., Tóth K., Lengyel Sz. & Tóthmérész B. (2012): Fast restoration of grassland vegetation by a combination of seed mixture sowing and low-diversity hay transfer. Ecological Engineering 44: 133-138. DOI: 10.1016/j.ecoleng.2012.03.010.

Valkó O., Török P., Matus G. & Tóthmérész B.(2012): Is regular mowing the most appropriate and cost-effective management maintaining diversity and biomass of target forbs in mountain hay meadows? Flora 207:303-309. DOI: 10.1016/j.flora.2012.02.003.

Wessels-deWit S. & Schwabe A. (2010):The fate of sheep-dispersed seeds: Plant species emergence and spatial patterns. Flora 205(10): 656-665.


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# Forthcoming events

**55th Symposium of the International Association for Vegetation Science (IAVS)**
**23–28 July 2012, Mokpo City, South Korea**
http://www.iavs2012.org/iavs2012/iavs4.asp

**3rd European Congress of Conservation Biology**
**28 August – 1 September, 2012, Glasgow, Scotland**
http://eccb2012.org/

**European Conference on Ecological Restoration**
**9–14 September 2012, České Budějovice, Czech Republic**

**42nd Symposium of the Ecological Society of Germany, Austria and Switzerland (GfÖ)**
**10–14 September 2012, Lüneburg, Germany**
http://www.gfoe.org/

**Dune Scrub and Woodland Conference**
**September 12-13, 2012, Liverpool, United Kingdom**
*Details:* duneconference@hope.ac.uk
www.hope.ac.uk/dunewoodlands

**XIV Meeting of the FAO-CIHEAM Subnetwork on Mediterranean Pastures and Fodder Crops**
**3–6 October 2012, Samsun, Turkey**
*Contact:* Ignacio Romagosa,
E-mail: iamz@iamz.ciheam.org
*Details:* http://www.iamz.ciheam.org

**Plant Kingdom in the Red Data Book of Ukraine: Implementation of the Global Strategy for Plant Conservation**
**9–12 October 2012, Uman, Ukraine**
*Contact:* Mykyta Peregrym,
E-mail: iamz@iamz.ciheam.org

**6th Biennial Conference of the International Biogeography Society in Florida, USA**
**January 9–13, 2013, Florida, USA**
*Registration and abstract submission for symposia, contributed papers and posters will open in July 2012.*
http://www.biogeography.org/html/Meetings/2013/index.html

**22nd International Grassland Congress**
***Revitalising grasslands to sustain our communities***
**September 15–19, 2013, Sydney, Australia**
http://www.igc2013.com/pages/registration.php

*Echium russicum. Photo: P. Chmielewski*

*Carlina onopordifolia. Photo: P. Chmielewski*

*Flowering aspect of a Sub-Pannonian grassland with Onobrychis arenaria and Salvia pratensis in the Wachsenburg region in the western Thuringian basin, Germany. Photo: J. Dengler*

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***Important dates:*** *The deadline for Bulletin 16 is 31 August 2012*

*Bulletin 16 to appear: September 2012*

*Bulletin 17 to appear: December 2012*