Bulletin 1

of the European Dry Grassland Group

Introduction

European Dry Grassland Group *(EDGG) has been established in August 2008 by fusion of the German* ***Arbeitsgruppe Trockenrasen*** *and the* ***Working Group on Dry Grasslands in the Nordic and Baltic Region****. It connects people with a special interest in dry grassland communities, their variability, diversity and conservation. To keep this working group alive and in reciprocal communication we decided to prepare a newsletter with a quarterly periodicity called Bulletin of the EDGG and here we offer you its first issue. We wish you a pleasant time during reading and we are looking forward to the further communication.*

Jürgen Dengler, Monika Janišová, Solvita Rūsiņa (chairs of the EDGG)

Content

Picture on the left side: Arenaria grandiflora in the Pavlovské kopce Mts., South Moravia, Czech Republic. Photo: M. Janišová.

EDGG homepage: http://www.edgg.org

European Dry Grassland Group

Dry grassland community dominated by Pseudolysimachion spicatum and P. orchidaeum in Javorie Mts., Slovakia. Photo: M. Janišová.

The European Dry Grassland Group (EDGG) was founded in August 2008 at the 5th Dry Grassland Meeting in Kiel, Germany. At this joint conference of the German *Arbeitsgruppe Trockenrasen* and the *Working Group on Dry Grasslands in the Nordic and Baltic Region*, which was attended by participants from nearly one dozen countries, we decided that we should combine the activities of these two groups and extend them to the whole Europe. Accordingly, EDGG is meant as an umbrella organisation for research and conservation activities in European dry grasslands.

Aims

The basic aims of 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)

Organization

The EDGG is an informal organisation that lives from the activities of its members. Everybody can become a member without any fee or other obligation. Currently, we have **191 members from 24 countries** (see p. 4).

We are not directly linked to any other organisation, but we closely cooperate with the relevant societies and groups, such as European Vegetation Survey, International Association for Vegetation Science, Society for Conservation Biology, the Workshop Vegetation Databases, and the Floristisch-soziologische Arbeitsgemeinschaft.

Activities and Services

To achieve its aims, EDGG provides three facilities for the information exchange among dry grassland researchers and conservationists:

the **EDGG Bulletin** (published quarterly), if necessary, supplemented by e-mails via our mailing list on urgent issues;

the **EDGG homepage (http://www.edgg.org)**;

the **European Dry Grassland Meetings**, organised annually in different places throughout Europe.

Depending on both the wishes and the contributions of our members, one could think of additional activities, such as:

- ♠ organisation of **dry grassland sessions** at conferences of other organisations;
- ♠ organisation of **specific courses** for students, scientists, and practitioners (e.g. determination of bryophytes, lichens or critical vascular plant groups; methods in vegetation sampling and classification; methods in biodiversity research; conservation measures);
- ♠ organisation of **field trips** (e.g. for sampling relevé data in underrepresented regions);
- ♠ establishment of **common data standards for national/regional vegetation databases** and combination of such data in **large-scale meta-analyses**;
- ♠ joint **application for international research projects.**

EDGG is an umbrella organisation and as such comprises regional or thematic subgroups. Currently, there are two such subgroups:

Subgroups

Arbeitsgruppe Trockenrasen

Foundation: 2004

Contact persons:

Ute Jandt (ute.jandt@botanik.uni-halle.de)

Jürgen Dengler (dengler@botanik.uni-hamburg.de)

Affiliated with: joint AK Syntaxonomy of the Floristisch-soziologische Arbeitsgemeinschaft and the Reinhold-Tüxen-Gesellschaft

Homepage: http://www.biologie.uni-hamburg.de/bzf/syst/ag_trockenrasen/ag_trockenrasen.htm

Members: 139

Geographic coverage: Germany

Aims: (i) establishment and evaluation of a national vegetation database for dry grassland relevés; (ii) publication of the dry grassland volumes of the series "Synopsis der Pflanzengesellschaften Deutschlands"; (iii) platform for research and conservation in German dry grasslands.

Language: German

Past activities: (i) organisation of the Annual Dry Grassland Meetings 2004–2008 (2004: Lüneburg; 2005: Münster; 2006: Halle (Saale), cancelled; 2007: Freising; 2008: Kiel); (ii) publication of the conference contributions in special features and conference volumes in various journals; (iii) information platform via e-mails, newsletter, and homepage; (iv) preparatory works for the German dry grassland database (e.g. development of a comprehensive electronic reference list and of pull-down menu for the header data).

Working Group on Dry Grasslands in the Nordic and Baltic Region

Foundation: 2005

Contact person:

Jürgen Dengler (dengler@botanik.uni-hamburg.de)

Homepage: http://www.biologie.uni-hamburg.de/bzf/syst/wg_dry_grasslands_nordic/wg_dgnb1_eng.htm

Members: 38

Geographic coverage: Denmark, Norway, Sweden, Finland, NW Russia, Estonia, Latvia, Lithuania, N Poland, NE Germany

Aims: establishment and evaluation of a supra-national vegetation database for dry grassland relevés of the study region.

Language: English

Past activities: (i) Establishment of a comprehensive vegetation database of the dry grasslands in the investigation area (7 016 relevés already included; 4 700 relevés digitally available; 6 034 relevés available on paper only); (ii) Publication of a first joint paper based on this vegetation database; (iii) Information platform via e-mails and homepage; (iv) Co-organisation of the 5th Dry Grassland Meeting 2008 in Kiel.

In future, these two groups will focus on their core topic, i.e. the establishment and evaluation of their vegetation databases, while EDGG will take over the responsibility for information exchange and the organisation of annual meetings.

If you wish to organise additional regional or topical subgroups within EDGG, please, contact Jürgen: dengler@botanik.uni-hamburg.de to arrange the details. The membership administration of all subgroups will be handled by him together with that of EDGG as a whole. This means that everybody who becomes a member of EDGG has the possibility to join one or several of its subgroups, too.

EDGG covers all aspects related to dry grasslands, in particular:

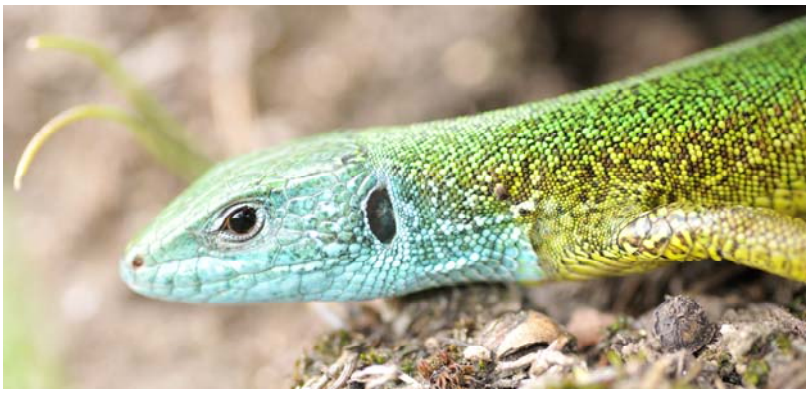
plants - animals - fungi - microbia - soils - taxonomy - phylogeography - ecophysiology - population biology - species' interactions - vegetation ecology - syntaxonomy - landscape ecology - biodiversity - land use history - agriculture - nature conservation - restoration - environmental legislation - environmental education

The overview of participation of countries in the EDGG, countries are shown in descending order

Country	Number of members
Germany	128
Poland	9
Austria	5
Czech Republic	5
Slovak Republic	5
Estonia	4
Latvia	4
Russia	4
Denmark	3
Sweden	3
Switzerland	3
Belgium	2
Hungary	2
Lithuania	2
The Netherlands	2
Romania	2
Australia	1
Bosnia/Hercegovina	1
Croatia	1
Finland	1
Ireland	1
Italy	1
Norway	1
Ukraine	1

Pavlovské kopce in South Moravia. Photo: M. Janišová.

Crambe tatarica near Pouzdřany in S. Moravia. Photo: M. Janišová.



Lacerta viridis in the Podyjí National Park, Czech Republic, excursion of the European Vegetation Survey, May 2008. Photo: J. Dengler.

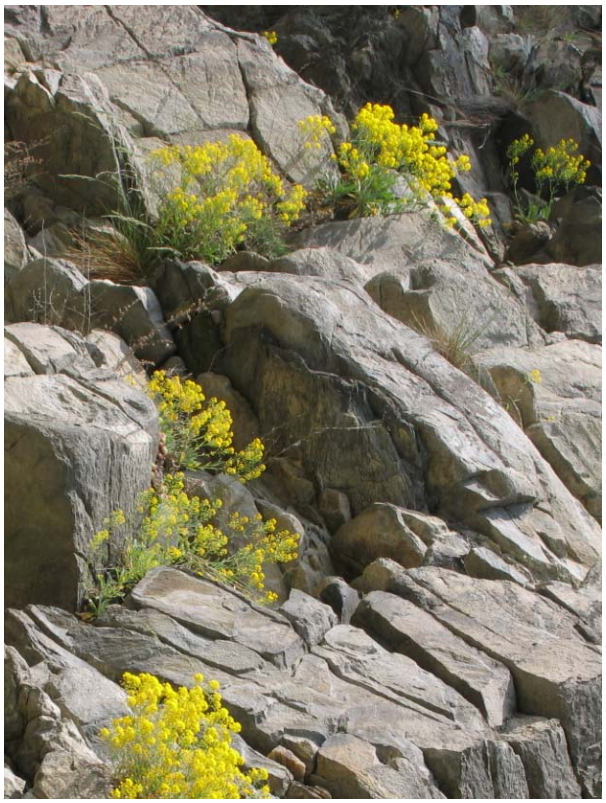
What are dry grasslands?

Dry grasslands are herbaceous vegetation types mostly dominated by grasses but sometimes also by annual or perennial forbs that inhabit climatically or edaphically dry sites, typically on poorly developed soils. Dry grasslands partly belong to natural zonal (steppe biome, alpine zone) or azonal/extrazonal vegetation (e.g. on grey dunes, around rock outcrops), and partly to the semi-natural vegetation.

In phytosociological terms, we basically include the following classes:

- ***Koelerio-Corynephoretea*** (incl***. Sedo-Scleranthetea***, ***Festucetea vaginatae***): dry grasslands of sandy and of shallow, skeletal soils
- ***Festuco-Brometea***: dry grasslands and steppes of base-rich soils
- ***Violetea calaminariae***: dry grasslands of soils rich in heavy metals
- ***Trifolio-Geranietea sanguinei*** (incl. ***Melampyro-Holcetea***): helio-thermophilous forest-edge and tall-herb communities
- ***Elyno-Seslerietea*** (***Seslerietea albicantis***, ***Kobresio myosuroidis-Seslerietea caeruleae***): Alpine and subalpine calcareous grasslands
- ***Festucetea indigestae***: Oro-Iberian siliceous grasslands
- ***Festuco hystricis-Ononidetea striatae*** (***Ononido-Rosmarinetea***): dry, basiphilous pasture communities of the supra- and oromediterranean zones of the Mediterranean
- ***Carici-Genistetea lobelii***: Cyrno-Sardian supra- and oromediterranean grasslands and phrygana
- ***Daphno-Festucetea***: Greek and Aegean oromediterranean calciphilous grasslands and phrygana
- ***Thero-Brachypodietea*** (***Tuberarietea guttatae***; incl. ***Poetea bulbosae***): Mediterranean low-grown swards, dominated by annual grasses and herbs
- ***Stipo giganteae-Agrostietea castellanae***: Western Mediterranean siliceous perennial grasslands
- ***Lygeo sparti-Stipetea tenacissimae***: Mediterranean steppes, pseudo-steppes and related perennial grasslands
- ***Onosmo polyphyllae-Ptilostemetea***: Crimean mediterranoid macchia and related grasslands over flysch

Of course, the delimitation of these communities towards adjacent classes, such as *Carici rupestris-Kobresietea bellardii*, *Calluno-Ulicetea*, *Molinio-Arrhenatheretea*, *Parvo-Caricetea*, *Puccinellio-Salicornietea*, or *Artemisietea vulgaris* is not always clear and sharp, and thus communities from the latter classes are not strictly excluded from our activities.



Podyjí National Park, South Moravia, rocky slopes with Alyssum saxatile. Photo: M. Janišová.

Stipa joannis in the locality Vrchná hora (see p. 13-14) and the view to the well-known locality Devínska Kobyla, Slovakia. Photo: I. Škodová.

Why are dry grasslands so attractive?

- ♠ Dry grasslands are particularly species-rich in many plant and animal groups and they thus host a proportion of Europe's biodiversity that by far exceeds their spatial coverage.
- ♠ European dry grasslands are among those plant communities with the highest small-scale species densities ever recorded worldwide.
- ♠ Dry grasslands are of high conservation concern as they host many endangered species and they are strongly threatened throughout Europe by many factors, such as destruction for other activities, abandonment of traditional use, afforestation, eutrophication, or invasion of neophytes.
- ♠ Most of the dry grassland types fall under the Habitats directive of the European Union.
- ♠ Dry grassland species have developed a wide range of interesting adaptations to their harsh environment, such as drought, high solar irradiation, lack of nutrients, instable soils, or grazing pressure.
- ♠ Dry grassland are very suitable as model system for biodiversity analyses because: their small-scale richness reaches from low to extremely high; they span very wide latitudinal, altitudinal and pH ranges; they occur both as natural and anthropogenic communities; they comprise not only vascular plants but also bryophytes, and lichens; and they typically grow in isolated patches.
- ♠ Dry grassland could be the first wide-spread vegetation type, for which a relevé-based, consistent vegetation classification at European scale is developed because they occur in nearly all European countries and they have always attracted botanists/phytosociologists and thus many data and co-workers are available.

Jürgen Dengler, Monika Janišová & Solvita Rūsiņa

Dry grassland community of the alliance Bromo pannonici-Festucion pallentis dominated by Potentilla arenaria near the village Trenčianske Mitice, Strážovské vrchy Mts., Slovakia. Photo: M. Janišová.

Introduction of EDGG chairs

Jürgen Dengler

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Research interests:
dry grasslands, forest-edge, ruderal and tall-herb communities; phytosociological methodology; vegetation databases; vegetation classification; conservation and restoration; biodiversity patterns and species-area relationships; theoretical ecology; floristics of vascular plants, bryophytes, and lichens.

Responsibilities within EDGG:
membership administration; book review editor; contacts to other organisations

Monika Janišová

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Research interests:
vegetation classification, syntaxonomy and ecology of grassland communities, population biology, succession

Responsibilities within EDGG:
editorship of the EDGG Bulletin

Solvita Rūsiņa

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Research interests:
vegetation science and phytogeography: grassland and forest fringe flora and vegetation geography, syntaxonomy, phytodiversity, monitoring.

Responsibilities within EDGG:
editorship of the EDGG homepage

Past activities

Coastal nature reserve Oehe-Schleimünde from a bird's view. Photo: H. Grell.

The 5th annual meeting of the AG Trockenrasen and the 1st meeting of the Working Group on Dry Grasslands in the Nordic and Baltic Region

These two meetings were held jointly from 28th to 30th of August 2008 at the Ecology Centre of the University of Kiel. As in the past meetings of the *AG Trockenrasen* several guests of neighboring countries had participated, we had decided to give more room to international exchange on this year's meeting. Accordingly, the meeting was hold mainly in English for the first time. 44 participants from 10 countries joined the Kiel meeting focusing on different aspects of European dry grasslands under the topic "**Dry Grasslands in a Changing Environment**". The authors of ten oral and fifteen poster presentations have been invited to submit their manuscripts for a Special Feature in the German journal *Tuexenia* or for a Conference Volume to be published in the regional journal *Mitteilungen der Arbeitsgemeinschaft Geobotanik in Schleswig-Holstein und Hamburg*. Both publications will be edited by Christian Dolnik, Kathrin Kiehl, Ute Jandt and Jürgen Dengler and are now under preparation.

The international flair of the Kiel meeting was generally appreciated by the participants and it became evident during the meeting that we should seek a solution to continuously include also dry grassland researchers and conservationists from outside Germany and the Nordic-Baltic region in joint activities. Thus it was agreed at the final workshop of the meeting that a *European Dry Grassland Group* should be founded, for which Jürgen Dengler (Germany), Monika Janišová (Slovakia) and Solvita Rūsiņa (Latvia) volunteered to serve as chairs.

Poster presentation. Photo: J. Dengler.

Although the north of Germany is not known as the motherland of species rich dry grasslands, there are extensive natural dry grassland areas along the North and Baltic Sea coasts, and also interesting dry grasslands on nutrient poor and sandy soils on inland dunes.

Nice and sunny weather gave an excellent final of the meeting on the Saturday excursions to Oehe-Schleimünde. Photo: B. Burkhard.

One excursion visited coastal dry grasslands and salt marshes on the Oehe-Schleimünde spit on the Baltic Sea coast. The coastal sand barrier area, Oehe-Schleimünde, is an important breeding and resting area for coastal birds and has been under protection since 1927. The 362 ha reserve includes various successional stages of coastal dry grasslands, small dunes and saltmarsh vegetation. Young sand barrier species include *Eryngium maritimum, Honckenya peploides, Sedum acre* and *Plantago coronopus*, and in older stages *Festuca ovina*, *Jasione montana, Viola tricolor, Rumex acetosella, Galium verum, Aira praecox, Viola canina, Taraxacum scanicum,* as well as the bryophytes *Tortula ruraliformis, Brachythecium albicans* and *Hypnum cupressiforme* var. *lacunosum*, and the lichens *Cladonia rangiformis, C. ciliata, C. portentosa, C. pyxidata, C. humilis, Peltigera rufescens* and several crustose species on stone pebbles. The area is of national importance for the protection of the coastal bryophytes *Bryum marrattii* and *Tortella inclinata*. In former times, such coastal areas were moderately grazed by cattle or sheep but that use has been stopped long ago. Since 2007, grazing with robust cattle, such as Galloways, was re-established to maintain pioneer vegetation and to reduce the increasingly dense and species-poor stands in the salt marshes, dominated by *Festuca rubra*, *Bolboschoenus maritimus* and *Phragmites communis*, as well as *Carex arenaria* stands in older dry grasslands in order to create better breeding places for birds. We had the chance to discuss management options with the responsible of the nature reserve Benjamin Burhart and the conservation manager of the Regional Conservation Foundation "Stiftung Naturschutz", Antje Walter.

The other excursion was guided by Katrin Romahn to the former military training area „Kremper und Nordoer Heide" (i.e. heathland of Krempe and Nordoe) south of the town of Itzehoe. It is a large 395 ha inland dune area with acidic soils (podzols). It has been used as military training area for more than hundred years. In consequence, no mineral fertilizer has been applied, and the soils remained comparatively nutrient-poor. Military training activities kept large parts of the area open and created several successional stages of dry grasslands and heathlands. After cessation of military activities, the area became a priority area for nature conservation within the Natura 2000 network. Future conservation management of the area is important to maintain the mosaic of species-rich pioneer vegetation of acidic soils. In dry grassland and heathland vegetation species such as *Nardus stricta, Botrychium lunaria, Helichrysum arenarium, Spergularia morisonii, Polygala vulgaris, Arnica montana, Genista pilosa*, *Antennaria dioica* and *Dianthus deltoides* occur as well as *Gentiana pneumonanthe, Anagallis minima, Radiola linoides* and *Drosera intermedia* at wetter sites. Perspectives for management of the area are under development and have been discussed during the excursion.

Evening meeting in the greenhouse. Photo: J. Dengler.

I would like to thank all participants for coming to Kiel and all contributors of lectures and posters for their presentations, which were the basis for the exchange of information and experiences of this meeting. Finally, I hope that we will have a next meeting organised within the framework of the *European Dry Grassland Group* in the near future.

Christian Dolnik, Kiel, Germany
cdolnik@ecology.uni-kiel.de

17th International Workshop „European Vegetation Survey“ Brno, Czech Republic, 1-5 May 2008

The workshop focused on the main topic “**Using phytosociological data to address ecological questions**” divided into the three partial topics:

- Macroecological analyses;
- Vegetation change as a part of the processes of global change;
- Problems of quality of phytosociological data.

During the workshop the following optional activities took place:

- Pre-workshop course „Analysis of phytosociological data using the JUICE program“ organized by Lubomír Tichý and Milan Chytrý

Excursion to the Pouzdřany Steppe, South Moravia, the Pavlov Hills on the horizon. Photo: M. Janišová.

Podyjí National Park, South Moravia, Photo: M. Janišová.

- Post-workshop excursion to the Podyjí/Thayatal National Park

The abstracts of lectures and posters can be found in:

Chytrý M. (ed.) (2008): *17th International workshop European Vegetation Survey. Using phytosociological data to address ecological questions. 1-5 May 2008. Masaryk University, Brno, Czech Republic. Abstracts and Excursion Guides*. Masaryk University, Brno, 220 pp.

Excursion to Podyjí National Park during the EVS meeting in Brno, Czech Republic in May 2008. Photo: M. Janišová.

Forthcoming events

Forthcoming events organized by the European Dry Grassland Group

On the following page you can find the first announcement of the 6th Meeting of the European Dry Grassland Working Group in Halle. The 7th EDGG Meeting is planned for 2010 in Slovakia. More detailed information on this event you will find in one of the next issues.

Forthcoming events organized by other organizations

8th Workshop of the German Working Group on Vegetation Databanks

25–27 February 2009, Greifswald, Germany

Main topic: **Vegetation databases and bioindication**

Conference homepage: http://www.botanik.uni-greifswald.de/workshop2009.html

Deadline for abstract submission: 15 January 2009

18th Workshop of the European Vegetation Survey (EVS)

25–28 March 2009, Rome, Italy

Main topic: **Thermophilous vegetation**

Excursions:
Mid-workshop excursion to the Lake of Bracciano Nature Reserve (27 March)
Optional post-workshop excursion to the Monte Gargano National Park (30 March –2 April)

Fees: 100 € (participation including lunches); 30 € (mid-workshop excursion); approx. 300 € (post-workshop excursion)

Pre-registration: before 30 November 2008

Conference homepage: http://www.evsitalia.eu/18°%20EVS%20Workshop.htm

The fact, that the main topic this year is closely related to dry grasslands, offers the opportunity for the EDGG to organise one of the sessions. Thus, if you are planning to participate in Rome and want to present a oral or poster contribution on dry grasslands, please, contact Jürgen: dengler@botanik.uni-hamburg.de. If there is a sufficient number of contributions from EDGG members, he will try to arrange a specific session together with the local organizing committee.

52nd Symposium of the International Association for Vegetation Science (IAVS)

30 May–4 June 2009, Chania, Crete, Greece

Main topic: **Vegetation processes and human impacts in a changing world**

Excursions:
Optional pre-symposium excursion to eastern Crete (25–30 May)
Optional pre-symposium excursion to the Santorini islands (26–29 May)
Mid-symposium excursion (four alternatives; 2 June)
Optional post-symposium excursion to the Peloponnese (5–9 June)

Fees: 300 € (participation including mid-symposium excursion for members); 150 € (ditto, for student members); for other fees see conference homepage

Deadlines for registration & abstract submission: 28 February 2009

Conference homepage: http://www.iavs2009.org/

Jahrestagung 2009 der Floristisch-soziologischen Arbeitsgemeinschaft

26–29 June 2009, Salzburg, Austria

Conference homepage: http://www.tuexenia.de/index.php?id=8

European Conference 2009 of the International Association for Landscape Ecology (IALE)

12–16 July 2009, Salzburg, Austria

Main topic: **European Landscapes in Transformation: Challenges for Landscape Ecology and Management**

Excursions:
Optional post-conference excursion to Slovakia (16–19 July)
Optional post-conference excursion to Switzerland (18–22 July)

Deadline for abstract submission: 1 January 2009
Deadline for registration: 30 April 2009

Conference homepage: http://www.iale2009.eu/

MARTIN-LUTHER-UNIVERSITÄT
HALLE-WITTENBERG

Institute of Botany/Geobotany and Botanical Garden

Dry grasslands – species interaction and distribution

first announcement of the 6th Meeting of the European Dry Grassland Working Group

Monday, 31st of August to Wednesday, 2nd of September 2009

Contact: Dr. Ute Jandt and Dr. Monika Partzsch, Institute of Botany/Geobotany and Botanical Garden, Martin-Luther-Universität Halle-Wittenberg, Am Kirchtor 1, 06108 Halle, phone 345 55 26412, fax 345 55 27228, e-mail: *ute.jandt@botanik.uni-halle.de*, *monika.partzsch@botanik.uni-halle.de*

The meeting will take place at the Institute for Geobotany and Botanical Garden in Halle/Saale, loca-ted near the city centre. The main topic of the meeting is „**Dry grasslands – species interaction and distribution**". We invite all interested persons from Europe-an countries to present talks or posters related to this topic. The conference will start with a workshop about databases and classification of dry grassland vegetation on Monday afternoon. The meeting will continue on Tuesday with lectures and a poster session dealing with species interaction and distribution in dry grasslands. For the third day, we will organize an excursion to visit dry grasslands in the surroundings of Halle. The main language of the meeting will be English, but possibly a meeting on the progress of the German working group will be held in German. The conference fee will be about 45 Euro (accomodation not included). For students and researchers with low budget we plan a reduction of fees (on special request only), but funding for this is not yet arranged. A more detailed announcement with call for contributions will follow in January 2009. Persons interested in receiving the second announcement could send an email to one of the organizers.

Halle offers various types of accomodation. Please ask for details at tourist information (http://www.stadtmarketing-halle.de). The youth hostel (Jugendherberge) in Halle offers nice and cheap accomodation for holders of membership card (DJH and others) and is located at about 5 minutes walk from the Institute for Geobotany. Halle has good train connections. Those, who wish to travel by plane could arrive at airport of Leipzig-Halle (LEJ) and use the connection by local train (about 10 minutes) to continue to Halle train station.

Ute Jandt, Halle, Germany, ute.jandt@botanik.uni-halle.de

Institute of Geobotany, Halle. Photo: H. Bruelheide.

Porphyry hills with dry grassland vegetation north-east of Halle/Saale. Photo: M. Partsch.

2nd European Congress of Conservation Biology (ECCB) of the Society for Conservation Biology (SCB)

1–5 September 2009, Prague, Czech Republic

Main topic: **Conservation biology and beyond: from science to practice**

Excursions:
There are options for three three-day trips and for five one-day trips

Deadline for abstract submission: 31 January 2009
Deadline for registration: 1 May 2009

Conference homepage: http://www.eccb2009.org/

39th Annual Conference of the Ecological Society of Germany, Switzerland and Austria (GfÖ)

14–18 September 2009, Bayreuth, Germany

Conference homepage: http://www.bayceer.uni-bayreuth.de/gfoe2009/

5th International Conference on Research and conservation of biological diversity in Baltic Region

22–24 April 2009, Daugavpils, Latvia

Scientific topics:
- Systematics, Morphology & Phylogeny
- Baltic Fauna & chorology
- Baltic Flora & chorology
- Genetics and Biotechnology
- Conservation Biology
- Ecology and Ecosystem Management
- Forest Management & Biological Diversity
- Climate Change & Biological Diversity
- Parasitology
-Agriculture & Biological Diversity

Deadline for abstract submission, registration, registration fee: 20 March 2009

Deadline for full paper submission: 22 April 2009

Contact: Arvīds Barševskis
conference@biology.lv

Saxifraga paniculata in the National Protected Reserve Podskalský Roháč in the Strážovské vrchy Mts., Slovakia, Photo: I. Pohánka

Remarkable dry grassland type/site

In this section, particular grassland communities or grassland sites will be introduced which are from certain point of view interesting for other EDGG members. You are invited to present your favorite grassland associations or those that are attractive in other aspects (their diagnostic species, distribution area, management and conservation), or you can simply present the picture gallery. Remarkable localities of dry grassland habitats can be introduced representing e.g. important research areas, refugies of rare and endangered species or simply places requiring special conservational measures.

In this issue, we will introduce the locality Vrchná hora from south-western part of Slovak Republic. In spite of its high biological value this locality lacks the effective conservation and the maintenance of valuable xero-thermophilous communities is thus endangered by commercial activities. This is the reason why the local nature conservationist prepare a project to rescue this locality and search appropriate partners from Germany (see the call in the section Forum).

Vrchná hora

Close to Bratislava at the border of Malé Karpaty Mts. and Borská nížina lowland a remarkable dry grassland site is located with a unique communities of xero-thermophilous flora and fauna. It is called Vrchná hora. Surrounded by flat fields and orchards this hill is conspicuous from distance. On the foothills, old vineyards and orchards which gradually pass over into the mosaic of shrub and grassland stands. These communities covering the area of about 7 ha are the most interesting.

Vrchná hora is built by neogene sandstones and limestones. Since the 16th century, the south-facing slopes have been transformed into vineyards. The top parts and north-facing slopes have been used as common pastures. The specific geographical, geological and climatic conditions of the locality are reflected in its extraordinary rich flora and fauna. Numerous plants and animals occurring here belong to the rare and endangered species. Altogether, 260 vascular plant species were recorded here (Škodová et al. 2005). Among them, 22 endangered plant species are listed in the Slovak Red List of Plants (Feráková et al. 2001). Critically endangered species *Himantoglossum adriaticum* and *Ophrys holoserica* occur here in a rich populations. Among other vulnerable species the following occur in the locality: *Dactylorhiza incarnata* subsp. *incarnata*, *Stipa pulcherrima*, *Dictamnus albus*, *Iris variegata*, *Orchis militaris*, *Orobanche alsatica*, *Orobanche gracilis*, *Phelipanche purpurea*, *Stipa joannis*, *Linum flavum*.

Grassland communities of Vrchná hora belong mostly to the association *Polygalo majoris-Brachypodietum pinnati* within the alliance *Cirsio-Brachypodion pinnati*. In the well developed stands on deeper soil, tussock grasses come to dominance such as *Stipa joanis* and *Festuca rupicola*. During their flowering, *Linum flavum* and *Anthericum ramosum* are especially con-



Ophrys holosericea, Himantoglossum adriaticum and Dictamnus albus in the locality Vrchná hora, Slovkia
Photo: I. Škodová and K. Hegedüšová.

spicuous. On shallow soil, the stands are open dominated mostly by *Inula ensifolia* and common occurrence of *Tithymalus cyparissias*, *Anthyllis vulneraria*, *Chamaecytisus supinus*, *Asperula cynanchica*, *Campanula glomerata*, *Sanguisorba minor*, *Thymus pulegioides* and *Polygala major*. In places covered by bare sand numerous annual or biennial herbs occur, e.g. *Salsola kali* subsp. *ruthenica*, *Petrorhagia saxifraga*, *Petrorhagia prolifera*, *Erysimum diffusum*, *Camelina microcarpa*, *Alyssum montanum* and *Acinos arvensis.*

On the top plateau and in the margins of shrub stands the association *Geranio sanguineii-Peucedanetum cervariae* has developed belonging to the fringe communities of the alliance *Geranion sanguinei*. The shrub communities belong to the alliances *Prunion spinosae* and *Prunion fruticosae*, respectively.

The locality was declared as an Important Plant Area with code SK IPA 134 within the project Important Plant Areas (IPA) of the Central and Eastern Europe coordinated by the organization Plantlife International (United Kingdom). In spite of numerous attempts, in the locality no conservation measures have been adopted until recent days, which would exclude activities resulting in degradation of valuable habitats. The locality is endangered by building of recreational objects and private houses. As the grassland communities are abandoned since longer time, gradual successional changes take place and woody species spread intensively in many places. To maintain the valuable steppe communities it is necessary to ensure the appropriate grassland management. However, the land has private owners, which would like to use it as building grounds.

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Several views to Vrchná hora, Slovakia, and its plant communities. Photo: I. Škodová.

Dry grasslands in European countries

This section is devoted to overviews of dry grassland research activities in different countries/regions of Europe. We believe that exchange of information can help all of us to get a better understanding of the overall situation of dry grassland research and conservation. Our expectation is that stimulating articles on dry grassland research topics and stories of successfull protection will encourage everybody to seek for closer cooperation and for new horizons in dry grassland research.

Different types of contributions are welcome for this section as the present status of dry grassland research and protection in a particular region is determined by several aspects, e.g. the history of overall vegetation (ecosystem) research, nature conservation priorities in the area, the possibilities of cooperation among scientists and practitioners, etc.

We would highly appreciate contributions of our members to this section. They should preferably fit in one of the following categories:

- *overview of dry grassland research/protection/restoration in your country/region (incl. list of publications etc.);*
- *single aspect of dry grassland history in your country/region e.g. history of dry grassland research/protection/ restoration;*
- *personalities who contributed or who are contributing to dry grassland research/protection/restoration;*
- *successful/significant project contributing to dry grassland research/protection/restoration;*
- *interesting results of dry grassland research, information on the state of the phytosociological database, etc.*

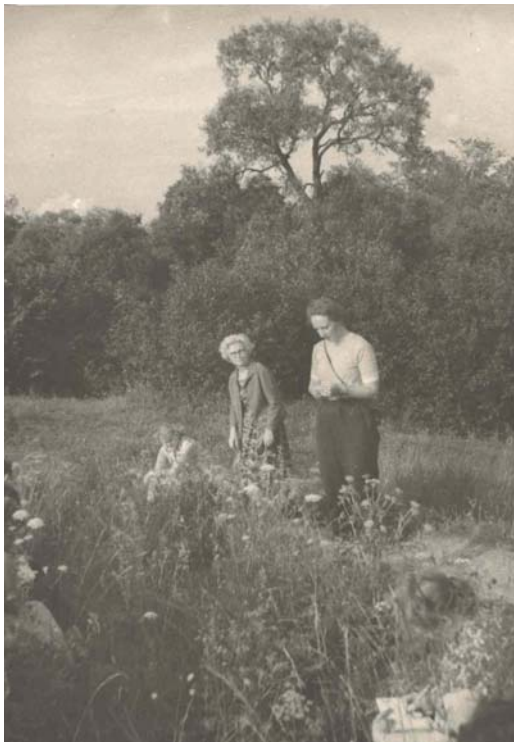
History of dry grassland vegetation research in Latvia

As Latvia is a small country, it seemed not to be a problem to collect information on the research and publications devoted to dry grasslands. However, the information older than 20 years was scattered over different information sources and titles of many of them did not raise the expectation to find anything about dry grasslands. For example, many publications of the 20th century on classification of grassland vegetation were published in a periodical called *Proceedings of the Institute of Zootechnics and Zoohygiene*. Due to the strong tradition to separate zoological and botanical research I restricted the following overview to studies dealing with dry grassland vegetation.

Dry grasslands cover approximately 2,000 ha and they are scattered in small fragments mainly in river valleys and along the coasts of the Baltic Sea and the Riga Gulf. Dry grasslands have attracted attention of biologists and ecologists only during the last 15–20 years. Vegetation research started in Latvia in the beginning of the 20th century but data on semi-natural grassland vegetation were fragmentary and mostly unpublished until the mid 20th century (only as diploma and PhD theses). The reason was the very low attractiveness of dry grasslands as a research object because neither scientific community nor any part of society perceived dry grasslands as a value from any point of view.

The Northern Gauja monitoring site after rain, 2006. Photo: S. Rūsiņa.

The first significant research of dry grasslands started in mid 20th century when the intensification of agriculture called for an overview of grassland resources for expanding husbandry. As a result, the description and classification of grassland plant communities developed as an important research direction for several years. In the same time some other investigations concerning semi-natural grasslands (the ecology of grassland species and communities, phytoindication, vegetation structure) were also carried out, mainly under the guidance of G. Sabardina. The main goal of these investigations was again to provide the best solutions for semi-natural (incl. dry) grassland improvement (Table 1).



G.Sabardina (from left) and A.Āboliņa in 1961 during the Expedition of Baltic Botanists in Latvia. Photo from A.Āboliņa's personal archive.

Depending on the classification approach, three periods can be distinguished in Latvia. The economical typology was based on meadow and pasture quality, and it was actively used at the beginning of 20th century up to the 1960s (Vārsbergs, 1923; Tērauds, 1954; Sabardina, 1958). The necessity of such a typology was called forth by the rapid development of agriculture at the end of 19th century and the beginning of the 20th century and conversion from grain farming to livestock farming.

In Latvia, the first vegetation classification based on features of the vegetation itself was the dominant method widely used in Russia at that time (Aleksandrova, 1969; Mirkin et al., 2002). It was used in geobotanical divisioning, but most important were G. Sabardina's works (Sabardina, 1957). New trends in vegetation research appeared in the 1980s when the first papers were published in which plant communities were investigated and classified according to the Braun-Blanquet phytosociological methodology. Although the aim of the research – to develop the classification of Latvian semi-natural grassland vegetation – did not change in this period either, there were several circumstances promoting the development of a new classification system and consequently the change of method.

Firstly, more and more criticism appeared both from European and Russian scientists arguing that the dominant method is not effective in polydominant plant communities, but the majority of semi-natural grasslands are such (Aleksandrova, 1969; Mirkin, Shelyag-Sosonko, 1984; Rabotnov, 1983). The weakness of this approach was also a lack of vegetation relevés or their inaccessibility to a wider audience. Plant communities described in the earlier periods of vegetation research in Latvia were not documented with relevés. The content of these communities is not known, and it is not possible to make a comparative analysis between different authors of that period and contemporary investigations.
Secondly, the previous classification ignored many rare and endangered plant communities. These include all dry calcareous and sandy meadows and pastures in Latvia. Thirdly, beginning with the 1990s international cooperation in nature protection and management of biological diversity broadened creating a necessity for common understanding of plant communities and habitats.

Although vegetation classification based on the Braun-Blanquet approach started in the early 1980ies, the progress was slow. Only 1–2 publications per year appeared in the period from 1980 to 1997. Most of them were devoted to forest and mire vegetation. Until 2006 vegetation scientists were employed at different institutions and there was no national-level project aiming at surveying vegetation of the country. Hopefully, things will change during the next years. In 2007, the Laboratory of Geobotany was established at the Institute of Biology of the University of Latvia under the leadership of Dr. habil. geogr. Māris Laiviņš (four persons are employed at the laboratory). The staff of the laboratory in collaboration with vegetation scientists from other institutions has prepared a project proposal to the Latvian Academy of Sciences with the main goal to publish an overview of plant communities of Latvia.

The overview of the current status of dry grassland research in Latvia will be published in the next issue of the Bulletin.

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Table 1 Semi-natural Grassland Research in Latvia

Research direction	*References*	*Results*
Vertical and horizontal structure of vegetation		
The influence of fertilisation on vegetation structure	Sabardina et al., 1967; Sabardina & Jukna, 1968	The influence of N, K, P, Cu, Mo, and B on vegetation structure (not in dry grasslands)
Ecological profiles	Sabardina, 1949; Sabardina &, Vielichko, 1970; Sabardina, 1952a,b, c; 1968	The spatial structure of plant communities (focusing mainly on river and lake flood-plains). Ecological profiles included also dry grasslands
Productivity of semi-natural grasslands		
Measurements of primary biomass both single and repeated (during several following years) measurements	Konrāds, 1939; 1948; Tērauds, 1954; Sabardina, 1955; Kļaviņa et al., 2001;	Productivity of the most common plant communities (incl. only some dry grassland communities). Conclusion: the productivity of semi-natural grasslands can fluctuate more than 100% depending on the average yearly weather conditions
Vegetation ecology and phytoindication		
Ecological amplitude of vascular plants, bryophytes, and plant communities; Identification of indicator species; Radioactivity of vascular plants	Eglite, 1967; Kristkalne, 1955; Klavina, 1965; Kļaviņa, 1966; 1967; Fatare, 1966; 1967; Jukna, 1964; 1966; 1967; Sabardina et al., 1973; Sabardina & Jukna, 1960; Sabardina, 1964; Sabardina et al., 1971; 1973; Sabardina & Jukna, 1968; Shalajeva & Sabardina, 1971	The second most important research branch (after vegetation classification). Several PhD theses were elaborated. 22 dominant species were analysed based on 320 geobotanical relevés (not accessible anymore) and soil chemical features (pH, amount of organic matter, N, P, K, Cu, B, Mo) (some species relevant to dry grasslands)
Phenology		
Phenology of dominant species; timing of phenological phases in different regions of Latvia	Sabardina & Gurevich, 1952	Investigations were carried out in permanent plots for several years. Regional differences in beginning and duration of phenological phases were detected and described.
Vegetation geography		
Grassland plant communities (classification and distribution)	Sabardina, 1957; 1962	Description of 32 formations of grassland vegetation (according to the dominant method), Schematic distribution maps provided for three formations: *Seslerieta caeruleae*, *Avenastreta pubescentis*, and *Molinieta coeruleae*. Only a negligible part of dry grasslands included into this overview (formation class *Prata frigidissica*)
Mapping of grassland vegetation as a part of geobotanical mapping of Latvia	Sabardina et al., 1970	The mapping unit was a formation (according to the dominant method); the map is not published and not available for broader audience.
Mapping of semi-natural grassland habitats	Kabucis et al., 2003	The mapping unit was a habitat type (corresponds to association or alliance of the Braun-Blanquet vegetation classification approach) The map is digitised but not published, results are only partly published (Rusina, 2007).

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Dry pasture in Latvia, 2006. Photo: S. Rūsiņa.

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Sabardina, G., Vielichko, E. (1970) Using of ecological profile for research of spatial distribution of vegetation. *Proceedings of Academy of Sciences of Latvian SSR,* 5: 12-19. [Сабардина Г., Виеличко Е. Использование экологического профиля в изучении пространственного размещения растительности. *Известия АН ЛССР,* 5: 12-19.] (in Russian).

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Vārsbergs, J. (1923) *Pļavas un ganības.* [Meadows and pastures.] Rīgā. 79 lpp.

Nature protection area „Randu Meadows" with extensive coastal grasslands, 2006. Photo: S. Rūsiņa.

Book reviews

In this section, we will publish reviews of recent books relevant for dry grassland research and conservation. Apart from titles particularly dealing with dry grasslands, also more general titles can be included, as for example phytosociological overviews, floras/faunas and field guides of relevant taxa, or text books on methodology, ecology, and conservation/restoration. Jürgen Dengler (dengler@botanik.uni-hamburg.de) serves as coordinator for this section (book review editor). Thus, if you are an author, editor or publisher of a book and want to have it reviewed in the Bulletin of the EDGG, please, contact Jürgen. The same applies to EDGG members who want to review a specific new title.

Recent publications of our members

With this section, we want to facilitate an overview of dry grassland-related publications throughout Europe and to improve their accessibility because many publications on dry grasslands appear in national or regional journals hardly known to researchers in other countries.

We ask our members therefore to send lists of their recent relevant publications to Monika Janišová: monika.janisova@savba.sk. Please follow the style of a recent issue of the Bulletin and provide an English translation of the title for publications in other languages. Publications of the recent and the three preceeding years will be considered and each publication will be listed only in one Bulletin.

If you would like to have your publication linked from our homepage (http://www.edgg.org), you may send a quotation to Solvita Rūsiņa: rusina@lu.lv. In this case, you should provide access to a pdf of your publication by one of the following three ways: (i) send a pdf to Solvita to be posted directly on the EDGG homepage; (ii) send a link to a URL at which the pdf is being made available permanently; (iii) provide your e-mail contact to allow colleagues to ask you for a pdf (in case you are not allowed to post a pdf openly).

Syntaxonomy of dry grasslands

Boch S., Dengler J. (2006): Floristische und ökologische Charakterisierung sowie Phytodiversität der Trockenrasen auf der Insel Saaremaa (Estland). In: Bültmann H., Fartmann T., Hasse T. [Eds.]: Troauf unterschiedlichen Betrach–tungsebenen – Berichte einer Tagung vom 26.–28. August in Münster. Arb. Inst. Landschaftsökol. Münster 15: 55–71, Münster.

Dengler J. (2006): Xerothermvegetation in NO-Niedersachsen und im Mittleren Elbetal. In: Härdtle W., Horst K., Prüter J. [Eds.]: Flora und Vegetation im nordöstlichen Niedersachsen. *Jahrb. Naturwiss. Ver. Fürstentum Lüneburg Sonderh.* 1: 107–114, Lüneburg.

Dengler J., Boch S. (2008): Forest-edge communities (*Trifolio-Geranietea sanguinei*) on the island of Saaremaa (Estonia): Phytosociology and biodiversity patterns. In: Dengler J., Dolnik C., Trepel M. [Eds.]: Flora, Vegetation und Naturschutz zwischen Schleswig-Holstein und Südamerika. Festschrift für Klaus Dierßen zum 60. Geburtstag. *Mitt. Arbeitsgem. Geobot. Schleswig-Holstein Hamb.* 65: 257–286, 2 tables, Kiel.

Dengler J., Eisenberg M., Schröder J. (2006): Die grundwasserfernen Saumgesellschaften Nordostniedersachsens im europäischen Kontext. Teil I: Säume magerer Standorte (*Trifolio-Geranietea sanguinei*). *Tuexenia* 26: 51–93, 9 tables, Göttingen.

Dengler J., Eisenberg M., Schröder J. (2007): Die grundwasserfernen Saumgesellschaften Nordostniedersachsens im europäischen Kontext. Teil II: Säume nährstoffreicher Standorte (*Artemisietea vulgaris*) und vergleichende Betrachtung der Saumgesellschaften insgesamt. *Tuexenia* 27: 91–136, 6 tables, Göttingen.

Dengler J., Löbel S. (2006): The basiphilous dry grasslands of shallow, skeletal soils (*Alysso-Sedetalia*) on the island of Öland (Sweden), in the context of North and Central Europe. *Phytocoenologia* 36: 343–391, Berlin.

Dengler J., Löbel S., Boch, S. (2006): Dry grassland communities of shallow, skeletal soils (*Sedo-Scleranthenea*) in northern Europe. *Tuexenia* 26: 159–190 + 6 tables, Göttingen.

Illyés E., Chytrý M., Botta-Dukát Z., Jandt U., Škodová I., Janišová M., Willner W. & Hájek O. (2007): Semi-dry grasslands along a climatic gradient across Central Europe: Vegetation classification with cross-validation. *J. Veg. Sci.* 18: 835-846, Uppsala.

Janišová M., Hájková P., Hegedüšová K., Hrivnák R., Kliment J., Michálková D., Ružičková H., Řezníčková M., Tichý L., Škodová I., Uhliarová E., Ujházy K & Zaliberová M. (2007): Travinnobylinná vegetácia Slovenska – elektronický expertný systém na identifikáciu syntaxónov. [Grassland vegetation of Slovakia – electronic expert system for syntaxa identification. In Slovak with English summaries. Introduction and methods in English, too.]. Botanický ústav SAV, Bratislava, 263 pp.

Löbel S., Dengler J. (2008): Dry grassland communities on southern Öland: phytosociology, ecology, and diversity. In: Maarel E. van der [Ed.]: Structure and dynamics of alvar vegetation on Öland and some related dry grasslands. Dedicated to Ejvind Rosén on his 65th birthday. *Acta Phytogeogr. Suec.* 88: 13–32, Svenska Växtgeografiska Sällskapet, Uppsala.

Rūsiņa S. (2005): Diagnostic species of mesophylous and xerophylous grassland plant communities in Latvia. *Acta Universitatis Latviensis. Earth and Environment Sciences* 685: 69–95.

Rūsiņa S. (2006): Nemeža augu sabiedrības Latvijas pilskalnos. [Non-forest plant communities in Latvian hill-forts. In Latvian with short English summary]. *Acta Universitatis Latviensis*, *Earth and Environment Sciences,* 695: 67–92.

Rūsiņa S. (2007): Latvijas mezofīto un kserofīto zālāju daudzveidība un kontaktsabiedrības. [Diversity and contact communities of mesophytic and xerophytic grasslands in Latvia. In Latvian with extensive English summary]. *Latvijas Veģetācija,* 12: 1–366.

Berg C., Dengler J. (2005): Moose und Flechten als diagnostische Arten von Pflanzengesellschaften – eine Übersicht aus Mecklenburg-Vorpommern. *Herzogia* 18: 145–161, Halle (Saale).

Methodology, classification, databases

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Dengler J., Chytrý M., Ewald J. (2008): Phytosociology. – In: Jørgensen S. E., Fath B. D. [Eds.]: Encyclopedia of Ecology: 2767–2779, Elsevier, Oxford [u. a.].

Janišová M. & Škodová I. (2007): Phytosociological database of Slovak grassland vegetation. *Ann. Bot. N. S.* 7: 19–26, Rome.

Jansen F., Dengler J. (2008): GermanSL – Eine universelle taxonomische Referenzliste für Vegetationsdatenbanken in Deutschland. *Tuexenia* 28: 239–253, Göttingen.

Dengler J., Boch S. (2006): Vegetation des NSG Kalkberg in Lüneburg. In: Härdtle W., Horst K., Prüter J. [Eds.]: Flora und Vegetation im nordöstlichen Niedersachsen. *Jahrb. Naturwiss. Ver. Fürstentum Lüneburg Sonderh.* 1: 49–55, Lüneburg.

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Michálková D. (2007): Diversity of dry grasslands in the Považský Inovec Mts (Slovakia) – a numerical analysis. *Hacquetia* 6/1: 61–76, Ljubljana.

Janišová M. & Uhliarová E. (2008): *Brachypodio pinnati-Molinietum arundinaceae* Klika 1939 v Starohorských vrchoch. [*Brachypodio pinnati-Molinietum arundinaceae* Klika 1939 in the Starohorské vrchy Mts. In Slovak with English abstract.] *Bul. Slov. Bot. Spoločn. Roč.* 30/2: 227–238, Bratislava.

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Dengler J. (2005): Zwischen Estland und Portugal – Gemeinsamkeiten und Unterschiede der Phytodiversitätsmuster europäischer Trockenrasen. *Tuexenia* 25: 387–405, Göttingen.

Dengler J. (2006): Variabilität von Artendichte und Artenzusammensetzung auf unterschiedlichen räumlichen Skalenebenen – Exemplarische Untersuchungen aus Trockenrasen und Konsequenzen für das Probedesign von Biodiversitätsuntersuchungen. In: Bültmann H., Fartmann T., Hasse T. [Eds.]: Trockenrasen auf unterschiedlichen Betrachtungsebenen – Berichte einer Tagung vom 26.–28. August in Münster. Arb. Inst. Landschaftsökol. Münster 15: 73–81, Münster.

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Jeschke M., Dengler J., Boch S., Dolnik C., Kiehl K., Löbel S. (2007): Species-area relationships in European dry grasslands – A comparative analysis across regions, taxa, and scales. *Verh. Ges. Ökol.* 37: 180, Berlin.

Löbel S., Dengler J., Hobohm C. (2006): Species richness of vascular plants, bryophytes and lichens in dry grasslands: The effects of environment, landscape structure and competition. *Folia Geobot.* 41: 377–393, Průhonice.

Conservation and restoration

Putfarken D., Dengler J., Lehmann S., Härdtle W. (2008): Site use of grazing cattle and sheep in a large-scale pasture landscape: a GPS/GIS assessment. *Appl. Anim. Behav. Sci.* 111: 54–67, Amsterdam.

Rūsiņa S. (2008): Dabisko zālāju atjaunošanas pasākumu ietekme uz veģetāciju aizsargājamo ainavu apvidū „Ziemeļgauja". [The influence of semi-natural grassland restoration on vegetation in the protected landscape area „Northern Gauja". Iin Latvian with short English summary]. Gr.: Auniņš A. [ed.] *Aktuālā savvaļas sugu un biotopu apsaimniekošanas problemātika Latvijā*. Latvijas Universitāte, Rīga, 57–72. pp.

Timmermann T., Dengler J., Abdank A., Berg C. (2006): Objektivierung von Naturschutzbewertungen – Das Beispiel Roter Listen von Pflanzengesellschaften. *Naturschutz Landschaftsplanung* 38: 133–139, Stuttgart.

Population biology of dry grassland species

Janišová M. (2006): Caespitose grasses in dry grassland communities at several organization scales. In: Bültmann H., Fartmann T., Hasse T. [Eds.]: Trockenrasen auf unterschiedlichen Betrachtungsebenen – Berichte einer Tagung vom 26.–28. August in Münster. Arb. Inst. Landschaftsökol. Münster 15: 43–49, Münster.

Janišová M. (2006): Tiller demography of *Festuca pallens* Host (*Graminae*) in two dry grassland communities. *Pol. J. Ecol*. 54/2:201–213, Łomianki.

Janišová, M. (2007): Leaf demography of *Festuca pallens* Host in dry grassland communities. *Biologia*, 62/1: 32–40, Bratislava.

Janišová M. & Gömöry D. (2007): Spatial genotypical diversity of *Sesleria albicans* (*Poaceae*) in a dry grassland community. *Biologia* 62/6: 670–674, Bratislava.

Reports and other topics

Bültmann H., Hasse T., Dörsing M., Jandt U., Becker T., Dengler J. (2006): Trockenrasen auf unter–schiedlichen Betrachtungsebenen – Zweite Jahres–tagung der AG Trockenrasen vom 26.-28.08.05 in Münster. *Tuexenia* 26: 389–390, Göttingen.

Dengler J., Jandt U. (2005): Arbeitsgruppe „Trocken–rasen" gegründet – Bericht von der ersten Jahresta–gung unter dem Motto „Trockenrasen als Biodiver–sitätshotspots". *Tuexenia* 25: 375–378, Göttingen.

Herd of goats in karst of the Slovenský kras on the border between Slovakia and Hungary. Photo: D. Dúbravková.

Dengler J., Rūsiņa S., Boch S., Bruun H. H., Diekmann M., Dierßen K., Dolnik C., Dupré C., Golub V. B., Grytnes J.-A., Helm A., Ingerpuu N., Löbel S., Pärtel M., Rašomavičius V., Tyler G., Znamenskiy S. R., Zobel M. (2006): Working group on dry grasslands in the Nordic and Baltic region – Outline of the project and first results for the class *Festuco-Brometea*. *Ann. Bot. N. S.* 6: 1–28, Rome.

Dengler J., Rūsiņa S., Boch S., Löbel S. (2008): The basiphilous semi-dry grasslands (*Festuco-Brometea*) in N and NE Europe: gradient analysis and large-scale classification. In: Mucina L., Kalwij J. M., Smith V. R., Chytrý M., White P. S., Cilliers S. S., Pillar V. D., Zobel M., Sun I.-F. [Eds.]: Frontiers of Vegetation Science – An Evolutionary Angel: 42–43, Keith Phillips Images, Somerset West.

Kiehl K., Albrecht H., Röder D., Jeschke M., Dolnik C., Schwabe A., Jandt U., Dengler J. (2008): Wiederherstellung und spontane Ansiedlung von Trocken- und Halbtrockenrasen in ursprünglichen und urban-industriellen Lebensräumen – Tagung in Freising-Weihenstephan vom 6. bis 8. September 2007. *Tuexenia* 28: 263–266, Göttingen.

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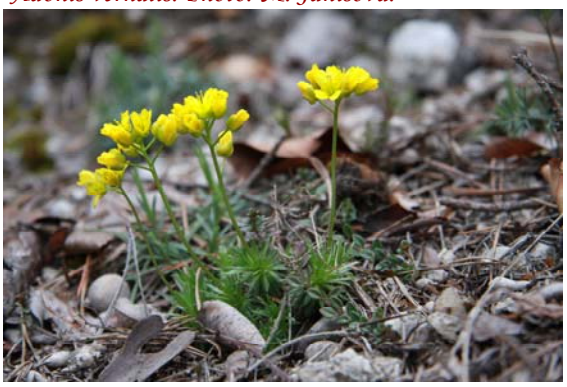
Carex humilis. Photo: M. Janišová.

Adonis vernalis. Photo: M. Janišová.



Draba aizoon. Photo: J. Smatanová.

Anthericum ramosum. Photo: M. Janišová.

Miscellaneous

This section includes announcements of the chairs to the members.

How you can contribute to the Bulletin

We cordially invite you to make own contributions to the Bulletin. If you would like to publish in the Bulletin or you want to make suggestions for improvement, please contact the managing editor of the Bulletin, Monika Janišová: monika.janisova@savba.sk.

Various ways how you can contribute to the Bulletin:

- to present remarkable dry grassland type/site
- to present new publications
- to share the photos and experiences from meetings, excursions and conferences
- to initiate the establishment of new regular section in Bulletin
- to initiate the establishment of new working group
- to address questions related to dry grasslands (to find co-researchers for projects, to ask for advice in management practices, classification opinion, etc.)
- to provide advice or help to other members asking for advice or help related to dry grasslands
- to contribute to the logo competition (see below)
- to inform us on any changes of e-mail or other personal contact data
- to spread this Bulletin to other colleagues
- to announce the EDGG, its Bulletins, its homepage and its meetings in your institute or organization
- to link the homepage of the EDGG from your homepage or that of your institute or organization

Homepage

You can find our homepage at http://www.edgg.org. The homepage is under construction but we do our best to develop it as informative as possible. We would highly appreciate members' contributions to its contents and advice to its structure. Please, contact managing editor of the homepage Solvita Rūsiņa: rusina@lu.lv. The materials submitted for the Bulletin will automatically be considered for the inclusion on the homepage.

Search for a logo

An own logo would help to promote the activities of the EDGG. Therefore, we ask you to submit suggestions for such a logo until 31 January 2009 to Monika: monika.janisova@savba.sk. We plan to present all proposals in the next issue of the Bulletin and then let our members decide which to choose. There are no restrictions how the logo should look like, but it could be a good idea to include a typical plant and/or animal species and to make a connection to Europe. The logo can be in black-and-white or in colour but in the latter case should be reproducible also in black-and-white only.

Would you like to help us as a chair?

The chairmanship of the EDGG is not a "closed club". So, if you feel inclined to work together with the present three chairs in promoting research on and conservation of European dry grasslands, please, contact us. We would particularly welcome colleagues who represent regions (e.g. western and southern Europe) and topics (e.g. zoology, conservation and restoration) that are presently not so well covered by the chairs.

Photographs

We are continuously searching nice photographs of dry grasslands (sites, plant communities, plants, animals, research and conservation activities) for illustrative purposes (bulletin, homepage). If you want to have your photographs published in our media, please submit them in JPG format with sufficient resolution and accompanied by a short caption to Monika: monika.janisova@savba.sk.

Membership

Everyone interested in European dry grasslands can become member of the EDGG and of its subordinate units (presently the German *Arbeitsgruppe Trockenrasen* and the *Working Group on Dry Grasslands in the Nordic and Baltic Region*) without any obligation. Please simply write an e-mail to Jürgen Dengler dengler@botanik.uni-hamburg.de, who handles the membership list, including your complete address and specifying which of the groups you want to join. Please also inform Jürgen when your contact data change.

English editing of Bulletin

None of us chairs is a native English speaker. Thus, it would be useful to have our materials for Bulletin and homepage linguistically checked before publication. If you feel that you could help us in this respect, please contact Monika: monika.janisova@savba.sk or Solvita: rusina@lu.lv.

English editing of conference volumes

Editing the two publications with contributions from the Dry Grassland Meeting 2008, namely the Special Feature for "Tuexenia 29" and the Conference Volume in the "Mitteilungen der Arbeitsgemeinschaft Geobotanik in Schleswig-Holstein und Hamburg", we had to deal with several contributions that present very nice phytosociological data of dry grasslands from previously undocumented European regions, but whose authors have very little experience in English writing. As editors, we would like to have all these contributions be published but apart from other improvements this would require very serious editing of their English by someone with more experience in international publishing. Thus, if you are volunteering to assist one of those enthusiastic, young dry grassland researchers (mostly from eastern Europe) during the next weeks with a thorough linguistic revision of their manuscripts before resubmission, please, contact Jürgen: dengler@botanik.uni-hamburg.de, and he will arrange the contacts to the respective authors. Note that we intend to have all manuscripts be end-checked by a native speaking ecologist, who is paid for his duty, before they go to press, but the linguistic quality of some of the manuscripts is presently so poor that we could not afford to have all the editing done professionally. Thus, you do not need to be perfect in English. We hope that some of you are so kind and help your colleagues for free.

Important dates

deadline for Bulletin 1/2009: 15.2.2009

Bulletin 1/2009 to appear: March 2009
Bulletin 2/2009 to appear: June 2009
Bulletin 3/2009 to appear: September 2009
Bulletin 4/2009 to appear: December 2009

Update your contacts!

In case you change your e-mail but want to receive our Bulletins and other information of the EDGG also in future, be so kind and send your new e-mail address to Jurgen Dengler: dengler@botanik.uni-hamburg.de.

Population of Linum hirsutum in the Bodvianska pahorkatina Mts., Slovakia. Photo: M. Janišová.

Forum

In this section, our members can place requests for information or material, make announcements or calls for co-operation. Please, send the contributions for this section to Monika Janišová (monika.janisova@savba.sk).

Dry grasslands site in a botanical garden

I am a biology student at the TU Kaiserslautern. At the moment I am writing my thesis with Prof. Burkhard Büdel. It deals with planning a dry grassland of an andesite-ground for the university´s botanical garden. For my research I am looking for lists of suitable plants and descriptions of how to develop a dry grassland. If there is somebody who knows a similar project or has any other useful information, I would be very grateful to hear from you.

Hanna Heber, Kaiserslautern, Germany
hanna-heber@gmx.de

Biodiversity patterns

I am studying plant diversity patterns in European dry grasslands (vascular plants, bryophytes, lichens) at different spatial scales, and particularly species-area relationships (SARs). This topic is scientifically quite interesting and already yielded some unexpected results. I cooperate with various colleagues, and several papers have been published or are on the way. Presently, data from Sweden, Estonia, Russia, the Czech Republic, Switzerland, the United Kingdom, and Germany are included in these comparative studies. However, I want to achieve much better coverage in future. Thus, if you have high-quality plant diversity data from dry grasslands at multiple spatial scales, I would appreciate if you could provide them to me. If you are interested in this topic, you may also contact me to discuss the possibility of joint research with a uniform methodology.

Jürgen Dengler, Hamburg, Germany
dengler@botanik.uni-hamburg.de

Search for publications

In the medium run, I am planning to publish a comprehensive monograph on dry grasslands in Europe, most probably together with some colleagues from the EDGG. For this purpose, I am continuously collecting publications on any dry grassland-related topic, from any European country and irrespective of language. If you have published something in this field, I would greatly appreciate if you could send me an offprint or mail me a pdf.

Jürgen Dengler, Hamburg, Germany
dengler@botanik.uni-hamburg.de

Search for a project partner

Members of the Bratislavské regionálne ochranárske združenie (BROZ, Regional Union of Conservationists in Bratislava, Slovakia) are preparing the project proposal for the German Environmental Foundation in Osnabrück (Deutsche Bundesstiftung Umwelt, DBU) focusing on the conservation of valuable steppe communities in the locality Vrchná hora nearby Bratislava, Slovakia. The project is aimed at increasing the locality's legislative protection level by its declaration as the protected area, improvement of present state of grassland habitats by performance of management and restoration activities and preventing of construction activities by purchase or long-period renting of individual plots from private owners. The members of BROZ search for appropriate partner from Germany (e.g. organization focusing on conservation of termophilous flora and fauna or people experienced in management of their own protected area). If you are willing to share your experience with similar projects or you would like to participate in the mentioned project as a partner, please, contact us.

Iveta Škodová, Bratislava, Slovak Republic
iveta.skodova@savba.sk


Iris variegata and Linum flavum in the locality Vrchná hora, Slovakia. Photo: I. Škodová.

Job announcement

Call for Project Team Member

Establishment of Vegetation Research Centre in Latvia

Laboratory of Geobotany of Institute of Biology of University of Latvia is building a team for three-years vegetation survey Project in Latvia `**Establishment of Vegetation Research Centre in Latvia`.** Therefore, we are looking for a bryologist willing to take part in the Project, in case the funding is granted on June 2009.

Post: bryologist, full time

Rate: 12 LVL/h (~8.5 EUR/h)

Project duration: September 2009 – September 2012

Requirements: PhD student, student of master degree in biology, Dr. (not obligatory), who would like to live and work in Latvia for three years

We offer work in a good company and a challenge to take part in the preparation of the synopsis of the *Vegetation of Latvia*! Vegetation studies cover forests, mires, grasslands and coastal habitats.

If you are intrested to join us, please send your CV to Liene Salmina by 5 January 2009.

Liene Salmina, Riga, Latvia
e-mail: lsalmina@latnet.lv
mob. phone: +371 26439189

Picture on the right side: Dry grassland of the Medicagini-Avenetum on the Baltic Sea steep coast in western Latvia. 2006. Photo: S. Rūsiņa .

New journal in vegetation classification

In 2007, a group of vegetation scientists from various countries around the world has launched an initiative for a new international journal specifically devoted to vegetation classification and other aspects of descriptive vegetation science (working title: *Vegetation Classification and Survey*/VCS). This proposal is motivated by the fact that it is presently very hard if not impossible to have papers on such topics be published in international journals with high impact factors because many of the journals in this field have biases against such topics, be it in form of their publishing policy, their editorial board or the impossibility of having longer articles or vegetation tables be published. Coordinated by Prof. Laco Mucina (Stellenbosch, South Africa) an myself, thus, a steadily growing group of colleagues is supporting the project of a new publication outlet for high-quality, large-scale studies in vegetation classification in addition to the few existing ones. We aim at establishing this new journal as a third sister-journal of the two existing journals of the International Association for Vegetation Science (IAVS), *Journal of Vegetation Science* and *Applied Vegetation Science*, and to have it included in the ISI Web of Knowledge as soon as possible. IAVS now is establishing a committee to explore and develop this idea further. In order to get a better picture of the demands of the scientific community (i.e. potential readers and authors), we have developed a questionnaire, and every filled-in questionnaire that is returned to me will strengthen our arguments in favor of the new journal. The ideas for the planned new journal are discussed in an e-mail newsletter, called VCS Forum, which is presently received by more than 50 colleagues worldwide. If you wish to learn more about the planned new journal VCS and would like to support this idea, please, contact me in order to receive the latest issue of the VCS Forum and the form of the VCS Questionnaire.

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