Bulletin 17

of the European Dry Grassland Group

December is a time of reflection on the challenges of the past year as well as on our hopes for the coming one. We hope that you will find time to read the last issue of our Bulletin in 2012. It includes many news items, some of them good and some very sad. We would like to thank all our members who contributed to the events and activities organized by the EDGG during 2012 and so made our organization vibrant and attractive. We wish you and your families a peaceful Christmas time and good luck for the coming year 2013.

Editors

Content

Eryngium campestre in autumn. Photo: Jürgen Dengler

December 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: Thomas Becker - beckerth@uni-trier.de), Ute Jandt - jandt@botanik.uni-halle.de : 216 members

Working Group on Dry Grasslands in the Nordic and Baltic Region (contact: Jürgen Dengler - dengler@botanik.uni-hamburg.de): 95 members

South-East European Dry Grasslands (SEEDGG) (contact: Iva Apostolova - iva@bio.bas.bg): 224 members

Mediterranean Dry Grasslands (Med-DG) (contact: Michael Vrahnakis - mvrahnak@teilar.gr): 287 members

Topical Subgroup Grassland Conservation and Restoration (contact: Péter Török - molinia@gmail.com): 58 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.

10th European Dry Grassland Meeting 2013 in Poland

Since November 2012 we have opened the registration for 10th European Dry Grassland Meeting, which will take place in Zamość (SE Poland) in 2013. The **registration deadline as well as abstract submission is 28 February 2013**. As in the case of previous EDGG meetings, the journal Tuexenia will print a Dry Grassland Special Feature. Since this is the 10th EDGG meeting, a special issue devoted to dry grasslands will be also provided by the journal Hacquetia.

We expect that the topics of oral and poster contributions will address the title of the conference which is "**When theory meets practice: Conservation and restoration of grasslands**". Therefore, we welcome presentations concerning both theoretical aspects of grassland conservation, as well as those dealing with practical issues. Moreover, we hope that there will also be numerous presentations related to zoological components of dry grassland ecosystems. Of course all other topics connected with dry grasslands are welcomed too.

Conference fees can be paid by bank transfer and credit card/debit card, but no fees will be charged for oral contributors. More information can be found on the conference website (http://www.edgg.org/edgg_meeting_2013.html).

EDGG Fellowships

Thanks to the financial support by our mother organisation IAVS we could provide two EDGG Fellowships to young EDGG members from Eastern Europe (Ukraine, Bulgaria) to visit the lab of one of the EDGG Chairs (Jürgen Dengler, Hamburg). They stayed for three and six weeks respectively, and worked on the data from the 2nd and 3rd EDGG Research Expeditions. In both cases, a paper for an ISI journal based on these data is now almost complete and will be submitted in the near future. You will find a detailed personal report by the two fellows, Anna Kuzemko and Hristo Pedashenko in the middle part of this Bulletin (pp. 19–22).

While these first Fellowships were just a trial, it has become clear that they are a very effective means to exchange of knowledge and ideas and to stimulate international collaborations within EDGG. Therefore, the EDGG Executive Committee is willing to establish follow-up fellowships, provided we find "sponsors". Depending on the distance travelled and the duration of the stay, already 500–1500 € can enable a young EDGG Fellow from a country with less-well developed scientific infrastructure to learn methods of analyses and scientific writing in the group of a senior EDGG member. The EDGG Executive Committee therefore welcomes any suggestions of possible fellows and hosts of fellowships and, most importantly, sources of money.

Machnowska gora Reserve in winter. Photo: P. Chmielewski

EDGG Special Issues/Special Features

Presently, EDGG is organising five Special Issues/ Special Features in international journals. There are two on grassland diversity, one in ***Biodiversity and Conservation***, one in ***Agriculture, Ecosystems and Environment***. In the first journal, the submission deadline is already over, in the second the last of the invited papers can be submitted until end of this year. We assume that both Special Issues, covering a wide range of botanical and zoological studies will appear in 2013. Our third cooperation with a leading international journal is the preparation of a Virtual Special Feature of ***Applied Vegetation Science*** on "Towards a consistent classification of European grasslands". "Virtual" means that the individual articles will be published independently after acceptance over a period of 2–3 years, and the final articles will be accompanied by a synthesis paper of the guest editors. Here also the invitation of contributions is already closed, and the first paper has been accepted. It will appear in the second half of 2013 together with a brief editorial.

The traditional Dry Grassland Special Feature for ***Tuexenia*** 33 (2013) focused on temperate dry grasslands is also making progress, with three of the invited papers already in review and the rest expected in the near future. In 2013, we will for the first time have a similar Special Issue in the Slovenian journal ***Hacquetia***, focused on Mediterranean dry grasslands, where the invited papers can still be submitted until 28 February 2013. EDGG has recently reached agreements with the chief editors of both journals that guarantee the open-ended continuation of the EDGG-edited Dry Grassland Special Features on an annual basis in both journals. The idea is that our Special Features in *Tuexenia* take the botanical papers from the temperate and boreal zone, while our Special Features in *Hacquetia* take the zoological papers and the botanical papers from the sub-Mediterranean and Mediterranean zone. In both cases, this publication venue will be mainly open to contributions of the European Dry Grassland Meeting of the preceding year, but we additionally will allow a limited number of papers from the EDGG members in general.

In the future, the team of guest editors in Tuexenia will be led by Thomas Becker (beckerth@uni-trier.de) as successor of Jürgen Dengler, who has coordinated these Special Features since their "invention" in 2005. As we have secured a continuous production of the EDGG Special Features in *Tuexenia* for the coming years, it will become standard that papers that are accepted but were finalised by the authors too late for a certain volume of *Tuexenia* are simply transferred to the subsequent volume. This will allow a more continuous production process in the future. We will try to arrange with the editors of *Tuexenia* that such papers then will be published online prior to print publication ("online first" as in many international journals). Finally, we also have decided to **simplify the submission process** to the Dry Grassland Special Features in *Tuexenia* and make it on a continuous basis. Authors who wish to publish there for the first or second time will still first have to pass the abstract screening once a year, approximately one month after the EDGM, where only papers with positively evaluated abstracts may be submitted. Authors who have already co-authored at least two papers (except editorials) in the *Tuexenia* Dry Grassland Special Features, can now submit their first- or senior-authored contributions at any time without pre-evaluation. Presently, there are 13 persons that qualify for this "**fast lane**" (see Galvanek et al. 2012), namely T. Becker, M. Beldean, J. Dengler, D. Dubravková, M. Janišová, M. Jeschke, K. Kiehl, E. Ruprecht, I. Škodová, A. Szabó, P.D. Turtureanu and E. Uhliarová, but we assume that this list will grow fast. If you are among those listed and you wish to submit a paper, just send it to the chair of the Tuexenia guest editors, Thomas Becker. You don't need to wait for the annual abstract evaluation any more.

While the Special Features in *Hacquetia* will start with a full issue in 2013, in the following years we assume that we will always fill approximately half of the autumn issue of that journal. As already indicated, the focus in *Hacquetia* will be zoological papers and papers on Mediterranean dry grasslands. *Hacquetia* is fairly new, an open-access journal (2012 is only volume 11). It has an attractive homepage at http://versita.metapress.com/content/120766/, where you can find all articles since volume 6 (2007) for free download, including numerous relevant articles on fauna, flora, vegetation and conservation of dry grasslands. *Hacquetia* has been indexed in SCOPUS since 2009 and is likely also to be included in Web of Science in the near future. If you are interested in supporting the inclusion of *Hacquetia* in WoS, you can submit your proposal with your individual arguments why *Hacquetia* is worth coverage to the ISI recommendation page: http://ip-science.thomsonreuters.com/info/journalsubmission/ (note that they state on their homepage that multiple proposals would not help but the facts of the past have shown that actually they help very much; Thomson-Reuters is a highly commercial enterprise that is interested in providing products that meet the requirements of as many potential customers as possible).

Galvánek, D., Becker, T., Dengler, J. (2012): Biodiversity, syntaxonomy, and management – Editorial to the 7th Dry Grassland Special Feature (with a bibliometrical evaluation of the series). *Tuexenia* 32: 233–243.

Membership development

As of 8 December 2012, we had 852 members from 53 countries. Recently we could welcome our first member from Kosovo. Now only very few European countries are not represented in EDGG: Among the countries with sizable area and population, only Belarus, Azerbaijan, Montenegro, Malta, and Iceland are missing.

6th EDGG Research Expedition 2013 to the Altai Mts.

The 6th EDGG Research Expedition will for the first time will be conducted outside Europe, namely in central Asia. It takes place from **21 July – 1 August 2013** in the Russian part of the Altai region (a detailed announcement is available in Bulletin No. 16: pp. 24–29). We would like to remind you of the **deadline for registration on 31 December 2013**. If you are interested, please send a brief letter of motivation (approx. 1/2 page) to both Nikolai Ermakov (brunnera@mail.ru) and Jürgen Dengler (juergen.dengler@uni-hamburg.de), explaining why you wish to participate and which competences etc. you would contribute. In addition to the two organisers, there are places for up to 12 participants. Should there be more registrations than places, the organisers would select those who appear most motivated and who could contribute most knowledge and experience (e.g. from past expeditions).

Sadly, we have to inform you that our mother organisation IAVS has declined our application for financial support. Therefore, the present assumption is that each participant will have to cover the full costs himself/herself. We are aware that this will make it hard for EDGG members with low income to participate and the EDGG Executive Committee is therefore trying hard to find other sources of financial support. If you have any ideas here, these would be most welcome! If you would like to participate but can so only if we manage to get some external funding, please do not let this stop you from applying, but indicate in the cover letter the fact of "funding-dependence".

Tettigonia viridissima. Photo: J. Dengler

IAVS Symposium Tartu

The 56th Annual Symposium of the International Association for Vegetation Science under the motto "**Vegetation patterns and their underlying processes**" will take place on 26–30 June 2013 in Tartu, Estonia. In addition to the conference, there are two pre- and two post-symposium excursions available on 20–25 June and 1–6 July. Excursion 1 (available both before and after the conference; see http://iavs2013.ut.ee/western/) will be particularly interesting for dry grassland specialists as it focuses on Western Estonia and the big islands in the Baltic Sea, where some of the most species rich grasslands of the world are found (see Wilson et al. 2012). There is also a post-symposium R course (1-2 July).

The conference homepage is available at http://iavs2013.ut.ee/ and the registration is now open. Abstract submission is possible until 15 March 2013, and the reduced fee for early-bird registration is available until 15 April 2013. The Local Organising Committee provides much reduced fees for IAVS members and for students and particularly for student-IAVS members. Further, the Global Sponsorship Committee of IAVS has adopted a **scholarship scheme that grants free participation (and possibly also travel costs**) to selected PhD/Master students. Application is possible until 1 April 2013, for details see http://iavs2013.ut.ee/financial-support/.

The organisers (among them many EDGG members) warmly welcome vegetation scientists from all around the world to Tartu!

Wilson, J.B., Peet, R.K., Dengler, J., Pärtel, M. (2012): Plant species richness: the world records. *Journal of Vegetation Science* 23: 796–802.

European Vegetation Survey (EVS)

Our sister organisation EVS, the other European Working Group of IAVS, has recently launched its own web page: http://euroveg.org/. Anybody interested in European vegetation can join the Working Group without fees or need of being IAVS member, simply by sending an e-mail to the membership administrator Emiliano Agrillo (emiliano.agrillo@uniroma1.it).

Further, the registration to the annual scientific conference of EVS is now open. The 22nd Workshop of the European Vegetation Survey will take place in Rome on 9–11 April 2013. The two major topics this time will be "**Coastal and inland saline vegetation**" and "**Red list evaluation of plant communities**", but any other topics related to European vegetation are also possible. Deadline for abstract submission is **31 December 2012.**

IAVS Ecoinformatics Working Group

The Ecoinformatics Working Group of IAVS is presently re-organising itself and intends to become much more active in the future. The major aims of this Working Group are:

(a) facilitating communication among scientists studying community ecology through exploration and synthesis of large databases comprising vegetation-plot and related ecological data;

(b) facilitating access to these data;

(c) establishing standards for exchange of these data to facilitate data sharing;

(d) providing tools for identification, access, integration, storage, and analysis of these data.

All interested IAVS members can join the Ecoinformatics Working Group free of charge by sending an e-mail Bob Peet (peet@unc.edu) or Susan Wiser (wisers@landcareresearch.co.nz).

In the near future, the Ecoinformatics Working Group will adopt its own Bylaws (to ensure effective work and get access to IAVS funding) and elect its first formal Steering Committee.

Sand dunes of the river Elbe in the nature reserve 'Boberger Niederung', Hamburg, Germany. Photo: J. Dengler

Nature reserve "Kalkberg" in Lüneburg with gypsum outcrops that result in basiphilous dry grasslands, a habitat type otherwise extremely rare in the NW German lowlands Photo: J. Dengler

Gypsum outcrop in the nature reserve "Kalkberg" in Lüneburg, Germany. Photo: J. Dengler

Resolution on Common Agricultural Policy

Resolutions regarding the proposals of the European Commission on the Reform of the Common Agricultural Policy (CAP) of the 12 October 2011

Day by day a growing number of interested parties expressed their opinion about the proposals of the EC on the Reform of the CAP. At the core of the objections of the majority of the organizations is the definition of permanent grassland in the reform proposal. The current definition excludes many natural grazed areas with a relatively high proportion of shrub and tree cover, i.e. a concern mainly of the Mediterranean countries. The participants in the 24th General Meeting of the European Grassland Federation (EGF, http://www.europeangrassland.org/) held in Lublin (Poland), from 3 to 7 June 2012, representing 31 EGF Member Countries, during its EGF Business adopted the following resolutions on the reform of the CAP.

Resolution 1

... the EGF welcomes the principle of the measures of the greening component especially regarding the maintenance of the European grassland area. Supporting permanent grasslands is highly justified for the many ecosystem services they provide and for the biodiversity they contain.

Resolution 2

… the EGF expresses its concern about the definition of permanent grassland in the reform proposal: 'land used to grow grasses or other herbaceous forage naturally (self-seeded) or through cultivation (sown) and that has not been included in the crop rotation ofthe holding for five years or longer'.

This definition does not take into account the vast grazed areas that include high proportions of trees and/or shrubs and that have been used for centuries in different areas of Europe from Sweden to the South of Spain and to Greece. Grazed woodlands, Calluna heather and other Ericaceae communities in the lowlands and in mountains, Mediterranean matorral, the Spanish Dehesa and the Portuguese Montado for instance would be excluded from supports and they are among the most precious and biologically rich, grazed ecosystems of Europe. They are also storing carbon in higher amounts than other grazed ecosystems. These rangelands should be financially supported by 1st pillar payments at least as much as permanent grasslands including herbaceous forage species only.

On the other hand, large areas of grasslands are regularly resown without taking part in rotations with annual crops. The soil cover is always grass but the vegetation is not permanent grassland. These grasslands provide much lower environmental benefits and are species-poor. The definition should only include grasslands that did not experience a mechanical disturbance of the soil or were chemically destroyed and reseeded for a long period.

The following definition is proposed:

'land used to grow grasses, other forage, including woody species, naturally (self- propagated) or through cultivation (sown) and that did not experience a mechanical disturbance of the soil or were chemically destroyed for ten years or longer'.

Resolution 3

... the EGF requests the European Commission to modulate the support to grasslands in two levels and to target specifically the conservation of semi-natural grasslands and rangelands in the greening component by a higher support compared to other categories of grasslands. Semi-natural grasslands and rangelands should be supported at the highest rate, other grasslands at a basic rate.

Resolution 4

... the EGF considers that the greening component should support as a priority those farming systems that provide the most public goods and ecosystem services like High Nature Value (HNV) farming systems. Their persistence is threatened by a low profitability.

Resolution 5

Independently of the previous remarks, the EGF has some doubts about the efficiency of the present proposals for the greening measures.

The EGF considers that they could deliver environmental benefits if they would be more targeted, and include training, monitoring and evaluation of the results. Monitoring and evaluation could be done by the development of an indicator system.

With the exception of the support of HNV farming systems, it has been shown that only targeted measures can be efficient for biodiversity restoration and conservation (for instance: Bretagnolle et al. 2011). Most agri-environmental measures require long-term adoption for reaching consistent results. The one-year basis of the European Commission proposal does not fit with this criterion. Follow-up, evaluation and control systems are also necessary for achieving good value for money.

If the greening measures fail to deliver environmental

benefits, their credibility and the credibility of the whole CAP will be threatened.

Regarding data collection and statistics...

Resolution 6

... the EGF considers that statistical data oα grassland area, yield and production should be better collected and harmonized in the European Union. Terms like 'permanent pastures', 'permanent grasslands', 'semi-natural grasslands', 'intensive grasslands', 'temporary grasslands', 'rangelands' should be precisely defined and adequate categories used in the official statistical system of the European Union.

An adequate indicator system should be developed for surveying the evolution of the status of public goods and the delivery of ecosystem services from grasslands.

The text is signed on behalf of the EGF by Dr Willy Kessler (Federation Secretary), and Prof. Dr Alain Peeters (Responsible author on behalf of the EGF).

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Seed collection in Greece

An international mission to collect crop wild relatives

The period from 23 July - 20 August 2012, a scientific mission throughout continental Greece was developed with the major goal of selecting seeds from crop wild relatives of the Fabaceae, mainly Trifolium spp., Medicago spp., Anthylis spp., Onobrychis spp., Hippocrepis spp., etc. and Graminae, mainly Aegilops spp., Lolium spp., Secale spp., Phleum spp., etc. This tri-lateral mission consisted of (a) Parthenopi Ralli (Greek Gene Bank), (b) Zane Webber and Nicholas Ellison (Margot Forde - Forage Germplasm Centre, AgResearch of New Zealand, and (c) Josephine Piggin (Australia), Mohamed Fawzi (Egypt), and Ali Shehadeh (Syria) from the International Center for Agricultural Research in Dry Areas, ICARDA, based in Aleppo, Syria (Photo 1). The collection mission was officially approved by the Greek Ministry of Rural Development and Food (Decision no. 2293/70003/12-07-2012) and co-ordinated by the members of the EDGG Michael Vrahnakis and George Fotiadis. In total more than 50 Trifolium species, 20 Medicago species, and other economically valuable plant taxa were identified in the field. The final number will be determined by the use of molecular analyses. The collected genetic material is expected to significantly contribute to the research towards the improvement of cultivated varieties of cereals and legumes of Greece and other areas of the world, while simultaneously being safeguarded against loss.

Michael Vrahnakis, Karditsa, Greece

Collecting team in the castle of the city of Nafplio (Peloponnesus). Photo: Ali Shehadeh

Red List Assessment of European Habitats

Recently, the EDGG was called to support and communicate to its members the effort of DG Environment to undertake a feasibility study for Red List assessment across Europe. John Janssen, Joop Schaminée, John Rodwell and Susan Gubbay, representing DG Environment, are seeking to define well appreciated and established methodologies in such assessments. Particularly, DG is interesting in classification frames, assessment criteria and scales. In this open call, the team is hoping to cover as far as possible the extent of existing scientific knowledge and work and to establish contact with specialists. The original text/open call follows.

For DG (Environment) we are undertaking a feasibility study of Red List assessment of European habitats. The key research questions are (1) what classification frame should be used as the basis for such assessments – vegetation types, habitats/ biotopes or ecosystems; (2) what assessment criteria should be used, with what threshold levels and in which combinations; and (3) at what spatial and temporal scales should such assessments be made?

The feasibility study covers the terrestrial, freshwater and marine environments. The geographical extent is the same as for European species Red List assessments, that is Europe-wide beyond the limits of the European Union. For the marine realm, the study includes the Mediterranean, Black, Baltic and North Seas and the European part of the Atlantic Ocean, both territorial waters and the Exclusive Economic Zones of all European countries in the East Atlantic including Macaronesia.

At present, we are assessing the extent of existing work and establishing contact with individuals, groups and networks for whom this task is of interest and importance, compiling a bibliography and appraising the range of approaches.

We would be pleased to know if you have been or are now engaged in this kind of work and wish us to include some consideration of your methods and results, by email exchange with us or through access to publications or other reports. In particular, we would welcome comments on the three key research questions above. All communications will be fully acknowledged in our reports to DG (Env) which will be publicly available. If you wish to impose limitations on the ways in which we might use any information provided, we will of course respect these instructions. Please feel free also to pass on this request to others you know would be interested to respond or let us have their email address.

With our good wishes

John Janssen , Joop Schaminée, The Netherlands,
joop.schaminee@wur.nl
John Rodwell, Lancaster, UK
Susan Gubbay, Ross-on-Wye, UK

Hydrologically intact bogs are a rare habitat type in Europe (EU Priority habitat type 7110). The picture shows a kettle hole mire in the young moraine landscape of NE Brandenburg, Germany, with Eriophorum vaginatum, Betula pubescens and Pinus sylvestris. Photo: J. Dengler, JD101409

One of the most threatened habitat types of Europe are the subcontinental base-rich sand dune communities as they are found along the big lowland rivers (EU Priority habitat type 6120). The picture shows one of the few remaining stands of the association Jurineo cyanoidis-Koelerietum glaucae (all. Koelerion glaucae) in the nature reserve "Mainzer Sand", SW Germany, which protects those tiny bits that remained of the huge dune systems and which is now surrounded by highways and built-up areas. Photo: J. Dengler, JD125262

IAVS Symposium in Korea

The annual symposia of the International Association for Vegetation Sciences is one of the most important events for vegetation scientists worldwide. The 55th Symposium of the IAVS took place in Mokpo, Korea, 23-28 July 2012.

The Symposium was attended by 378 scientists representing 38 countries, contributing 185 oral presentations and 167 posters. Thanks to the travel grant provided by the IAVS, I could participate as a representative of the IAVS working group – European Dry Grassland Group.

Mokpo is situated on the southwestern tip of the Korean peninsula and has by far the most concentrated number of islands in its surroundings. From a European perspective, the city is full of contrasts mixing the modern quarters of high-rise apartment houses with scenes of the old city centre with vivid markets during the days and a colourful cultural program during the evenings. I was astonished by this living atmosphere and nice people I met there.

Five longer pre- and post symposium excursions were organized focusing mainly on halophytic and coastal ecosystems, temperate deciduous forest and evergreen broad-leaved forest ecosystems. The participants could choose among six destinations of mid-symposium excursions. I decided to visit one of the most beautiful Korean mountains – Jirisan Mts.

Jirisan National Park is located in the southwestern part of the Korean peninsula at the border of two provinces – Jeollanam-do and Jeollabuk-do. It was designated as the first national park of Korea in 1967. Its highest peak called Cheonwangbong is the third highest mountain in Korea with the altitude 1915 m. During the first stop, we visited the Species Restoration Technology Institute and were introduced to a restoration project focusing on the Asiatic black bear (*Ursus thibetanus*) which has been running since 2002. We spent midday in the area of the famous temple of Hwaeomsa. The temple was constructed in the 5th year of King Jinheung's reign (544) but was burnt down during the Japanese invasion in 1592. Several pagodas were later rebuilt and recently the temple stores many national treasures and is counted among the ten most famous temples in Korea.

During our stay, we experienced very hot and humid summer conditions with temperatures during the day exceeding 30°C, but we did not experience the rain which is typical of the monsoon season lasting from late June to late July. We also had many opportunities to try the Korean food which is typical by unique aromas and tastes. A typical Korean table setting consists of rice, soup and several side dishes including the essential side dish, kimchi. The side dishes are placed in the centre to be shared by everyone. Kimchi is a fermented vegetable dish that can be stored for a long time. In the past, Koreans used to prepare it as a substitute for fresh vegetables during the winter months. Recently, there are several hundreds of kimchi varieties differentiated by region and ingredients, most quite spicy.

In 2013, the annual symposium will take place in Tartu, Estonia organized by Martin Zobel and a team of Estonian vegetation scientists. The main theme is "Vegetation patterns and their underlying processes" but also topics on all aspects of vegetation science are welcome. Registration is now open online at http://iavs2013.ut.ee/registration/.

Monika Janišová, Banská Bystrica, Slovakia
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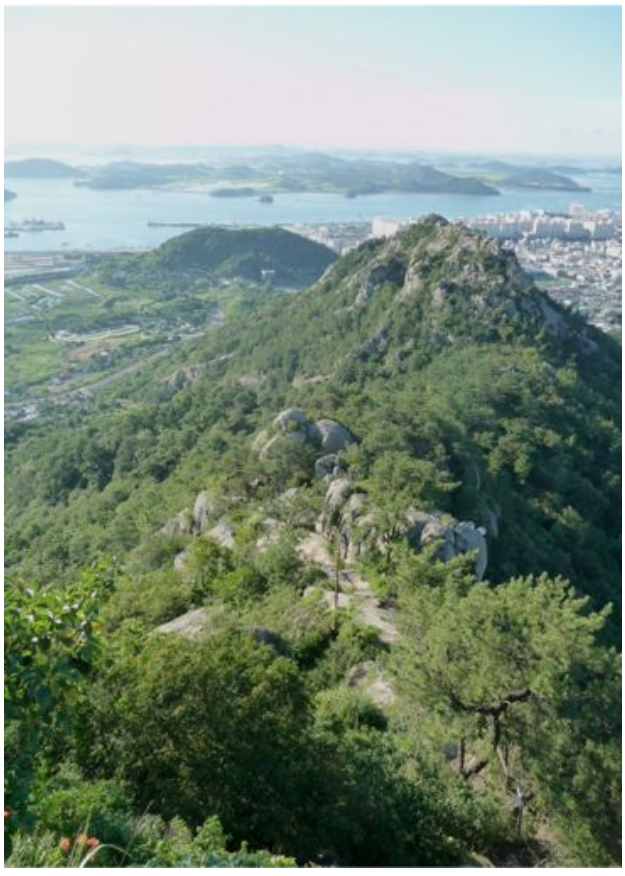
Inga Hiiesalu and Nina Smits during the conference dinner. Photo: M. Janišová

Dinner in the buddhist temple Hwaeomsa and cleaning the vegetables in the street of Mokpo. Photo: M. Janišová

Performance of traditional Korean songs and dances by the Jeollanam-do Provincial Institute for Korean Traditional Performing Art. Photo: M. Janišová



Mt. Yudalsan (230 m) boasts a panoramic view of the entire city of Mokpo and the sea. Photo: M. Janišová

Charms of the coastal city Mokpo surrounded by hundreds of islands, the view from Judalsan Mts and Hotel Hyundai, venue of the symposium (upper right picture). Photo: M. Janišová

Council meeting during the conference in Mokpo (left picture). The organisators of the next IAVS Symposium in Tartu, Estonia, are advertising the event (right picture). Photo: J. Dengler

Excursion participants waiting for the bus. Photo: J. Dengler

Buddhist temple Hwaeomsa in the Jirisan National Park (upper picture). Photo: M. Janišová.
Beautiful flowers of the Jirisan Mts (bottom pictures). Photo: J. Dengler

Lespedeza bicolor. Photo: M. Janišová

Excursion participants follow the Korean guide. Photo: M. Janišová

Veronica linearifolia. Photo: M. Janišová

Forests of Rhododendro schlippenbachii-Quercetalia mongoliacae. Photo: M. Janišová

Impatiens glandulosa. Photo: M. Janišová

Magnolia sieboldii. Photo: M. Janišová

Chalk hills of northwest Kazakhstan as biodiversity refugia

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Abstract: *This paper presents a floristic study of North-West Kazakhstan, including the West-Kazakhstan, Actobe and Atyrau regions. Notable within this area are the chalk hills of Obshii Syrt (height of 252 m. above sea level), the Sub Ural plateau (260-400 m) and Emba plateau (110-170 m). The chalk hills are refugia of floristic diversity, where 938 species were recorded and comprehensively analysed. In addition, relicts, endemics, subendemics, and rare and endangered species were listed.*

Keywords: chalk hills, biodiversity, refugia, floristic studies, endemics, relicts.

Introduction

Northwest Kazakhstan represents a natural physiographic region stretching from the Volga river in the west to the Mugodzhar mountains in the east, and from Obshii Syrt in the north to the coast of Caspian sea in the south, i.e. 52° to 48° latitude and 46° to 58° longitude (Ogureeva and others, 1999).

Within the Northwest Kazakhstan Obshii Syrt (OS) and Sub Ural plateau (SUP), the chalk hills stand out floristically. The southern part of Sub Ural plateau is known as the Emba plateau (EP).

Northwest Kazakhstan (NWK) is situated at the intersection of the Eurasian steppe and the Saharo-Gobiiskiy desert areas. There are important subzonal boundaries: northern, middle and south fescue-feather steppes adjoining temperate deserts.

This location is one reason for the high floristic diversity of NWK, in which 938 species have been recorded (Darbayeva, 2002). Regarding floristic composition, there are large differences between the various regions. In the northern part (Obshii Syrt) genera such as as *Betula*, *Corylus* and *Euonymus* are found. In the eastern part (Sub Ural plateau), *Capparis*, *Leontice*, *Anabasis*, *Lagochilus* and *Rhammatophyllum* are found. In southern part (the Emba plateau) there are species such as *Astragalus mugodsharicus*, *A. subarcuatus*, *A. temirensis*, *Rubia cretacea* and *Anabasis brachiata*.

Methods

The studies were conducted by flora routing method combined with fixed key areas of research at the Obshii Syrt, Subural plateau and Emba plateau where the observations were done on the structure and dynamics of vegetation. Collection and processing of herbarium material followed Skvortsov`s standard technique, 1977.

"Flora of the USSR" (1934-1964), and "Flora of Kazakhstan" (1956-1967) were used for the determination of plants, as well as "Flora of the south-east of the European part of the USSR" (1927-1936) and Ivanov's identification guide (1964-1989).

The flora list was created in accordance with the system of Tahtadzhyan (1997). For taxonomical nomenclature Cherepanov`s latest reports (1981, 1995) were used. In the analysis of the flora we used biological and morphological classification.

Results and Discussion

Analysis of the flora of the chalk hills concerning both taxonomic (classification) indicators and composition of life forms and eco-phytocenological analysis showed that this flora is typical for Eurasian steppe areas. According to these indicators, the areas are floristically similar to moderately dry Mediterranean region flora. The structure of the geographical elements also characterize this flora as steppe, on the border of the Holarctic kingdom and the Mediterranean region subkingdoms. The regional speciality of this flora is the significant number of north-Turanian species. Some of these species are subendemic for cretaceous landscapes of NWK and a part of an indiginous nucleus of this flora.

Based on our study of 938 species, the NWK calcium-phyto nucleus includes 218 species from 110 genera, within 29 families. The species distribution of the flora on cretaceous hills is uneven.

114 species were found on OS, 173 on SUP and 125 species on EP.

The flora of SUP turned out to be richer because it includes European, Eurasian and Turanian complexes. Here we consider in detail the SUP, where we defined the following ecotopes:

Class of ecotopes (CE) at the top, at the foot and plateau of chalk hills with montano-desert-calcicole and calcicole groupings.

CE of northern and western slopes with mesophytic-calcicole complexes.

CE of southern and eastern slopes with xerophytic-calcicole complexes.

CE of plain steppe communities.

CE of short-term pioneer communities of chalk and marl slopes, ravines and gullies.

CE of the foot of chalk slopes with a complex of halophytic-desert and petrophytic-steppe communities.

CE of springs, streams and ponds, occurring among the Cretaceous uplands with a complex of hygrophytic and mesophytic species.

In the northern part of Sub Ural plateau Utvinskiy landscape area is ecotopically richer, where seven classes of ecotopes are represented. The SUP plateau is a plain with a height of 180-280 m above sea level, divided with a system of quite wide river valleys (Utva, Ishkargan, Ilek). Salt-dome tectonics and erosive processes are pronounced.

Chalk ridges with outlays (Figure. 1, 2, 3) are included in this area, which begin from the village of Mirgorodka (263 m). Chalk hills and individual chalk outcrops are occupied by calcicole and petrophytic groupings, where 33 species are concentrated, including *Anabasis cretacea*, *Hedysarum gmelinii*, *H. grandiflorum.*, *H. razoumovianum*, *Linum flavum*, *Rhamnatophyllum pachyrhizum, Limonium macrorhizon, Orostachys spinosa, Silene cretacea, Nanophyton erinaceum* (Figure. 4-6).

Comparison of three heights showed that 66 species are frequent within these floras, and make up 30.2 % of the total number of individuals. The application of Jacquards coefficient in comparison to EP and SUP species composition showed that they are rather similar (K=0.46) and EP is strongly differs from OS (K=0.22).

Fig. 1 Cretaceous outcrop on the surrounding of Mirgorodka village. Photo: authors

Fig. 2 Shatyrly cretaceous outcrop. Photo: authors

Fig. 3 "Piramida" cretaceous outcrop. Photo: authors

Conclusion

All three flora have a cretaceous floristic nucleus, but their structure at different heights varies considerably. Similarity analysis of calcicole nuclei with the flora of chalk hills of Orenburgskiy, Samarskiy, Volgogradskiy, Rostovskiy and Voronezhskiy regions showed that the flora of the chalk landscapes of Orenburgskiy and Samarskiy regions are similar to the flora of the NWK, with about two thirds being made up of the same calcicole species. This similarity decreases sharply in the floras of the right bank of the Volgograd region and further west, in theVoronezh and Rostov regions. This gives us reason to assert that the trans-Volga West-Kazakhstan regions of chalk landscapes have their own special chalk flora, which differs from other "chalky" floras. The nucleus of this ancient flora is calcicole trans-Volga West-Kazakhstan steppe species and northturanian calcicole desert species.

In the calcicole complex of NWK, an autochthonic nucleus stands out from the 218 species, composed of 59 species, 43 genera and 20 families. An autochthonic nucleus includes 16 species on OS, 36 species on SUP, and 37 species on EP.

Among the distinctive and rare species of chalk outcrops of NWK, the endemic complex stands out including 41 species, the half of which are formed of local and narrow local endemics. Local regional elements include Aralocaspian (*Anabsis brachyata, A. cretacea, A. eriopoda, A. truncate, Asparagus inderiensis, Lagochilus acutilobus, Lepidium songaricum, Matthiola fragrans, Zygophyllum turcomanicum, Rhammatophyllum frutex*), Caspian (*Heterocaryum rigidum, Sueda dendroides, Petrosimonia glaucescens, P. monandra*) and North-caspian (*Onosma staminea*) endemics.

Among the narrow local endemics there are three Mugodzhar species (*Astragalus mugodscharicus, A. subarcuatus, A. temirensis*), one West-Kazakhstan (*Rubia cretacea*) and one area near the Uralsk, the so called "Syrtovo-poduralskoye" (*Jurinea kirgisorum*).

Probably the endemic complex was formed at the end of the Miocene to early Pliocene on the basis of regional Turanian (Neronov, 1985; Khobom, 2000) and the ancient Mediterranean calcicol and petrophytic species. The influence of the adjacent floras of Obshii Syrt, Privolzhskiy and even the Central Russian Upland (Langer, 1997) was affected on the formation of the complex. The final formation of the flora of these chalk landscapes took place over a long period from the Pliocene to the Holocene, so we can suppose that the narrow local Mugodzhar and West-Kazakhstan species are relatively young (Pleistocene-Holocene).

This analysis confirms that chalk hills of Northwest Kazakhstan is a refugium, where the unique flora of calcicole-petrophytic species has been preserved.

Fig. 4 Limonium macrorhizon. Photo: authors

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Fig. 5 Anabasis cretacea. Photo: authors

Fig. 6 Nanophyton erinaceum. Photo: authors

EDGG Fellowships 2012 - the first two fellows report

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Abstract: *Two young researchers from East and South-East Europe were awarded with first EDGG fellowships. They spent about a month in Division Biodiversity, Evolution and Ecology of Plants at Biocentre Klein Flottbek and Botanical Garden, University of Hamburg, where worked on preparation of papers for journals in the Web of Science under the supervision of experienced EDGG researchers. Accept for the pure scientific work, fellows were able to visit several protected areas and experience some of North German cultural, historical and architectural landmarks.*

Keywords: EDGG Research Expedition, IAVS, Ukraine, Bulgaria

Introduction

The EDGG Executive Committee has decided to use part of the financial support received from its mother organisation IAVS to establish EDGG Fellowships. They cover the costs of research stays of young scientists from Eastern Europe in the group of an experienced EDGG member to work on data from EDGG Research Expeditions or EDGG-related vegetation-plot databases in order to prepare them for publication in international journals.

The first EDGG fellowships were awarded to Anna Kuzemko from the National Dendrological Park "Sofiyvka" National Academy of Sciences of Ukraine and to Hristo Pedashenko from Institute of Biodiversity and Ecosystem Research Bulgarian Academy of Sciences. They spent 22 and 37 days respectively at the Division BEE (Biodiversity, Evolution and Ecology of Plants), Biocentre Klein Flottbek and Botanical Garden, University of Hamburg, Germany. They were supervised for the duration by Dr. Jürgen Dengler, private docent at BEE. The two main aims of the EDGG Fellowships were (a) analysis and preparation of data sampled during EDGG Research Expeditions and (b) capacity building by giving young EDGG members from Eastern and Southeastern Europe the chance to learn modern techniques of data preparation, data analysis, planning and writing up papers for journals in the Web of Science under the supervision of experienced EDGG researchers. The fellowship focused on the analysis and publication of the scale-dependent biodiversity patterns in dry grasslands of Central Podolia, sampled during the 2nd EDGG Research Expedition in 2010 (Dengler et al. 2010) and dry grasslands of Western Bulgaria from 3rd EDGG Expedition in 2011 (Apostolova et al. 2011). The planned outcomes of the cooperation are joint papers in the Web of Science journal Tuexenia.

Both fellows during the visit to nature reserve "Kalkberg" with basiphilous dry grasslands amidst Lüneburg. Photo: J.Dengler

View of a part of the Linné Building of the Biocentre Klein Flottbek and Botanical Garden of the University of Hamburg. Photo: authors

Working process

In the case of Ukraine, most of the work on the preparation of the data collected for analysis was done during the fellowship stay. At the same time, questions of taxonomy and nomenclature of some taxa of plants were hotly debated, since the concept of species in different European countries are not always compatible. Considerable work was done to clarify the header data of

the relevés as well as improvement and polishing of originally collected information. Data were analyzed using modified TWINSPAN (Roleček et al. 2009) implemented in JUICE (Tichý 2002), combined with a subsequent small-scale resorting in order to maximise phi values in the clusters (Chytrý et al. 2002, Becker et al. 2012, Luther-Mosebach et al. 2012). A clear view of the sampled vegetation was obtained after clustering it into nine vegetation units which have been interpreted as syntaxa of different rank. It was planned that at least two papers based on the data collected during the 2nd EDGG Expedition should be prepared. During a joint discussion it was agreed to dedicate the first paper purely to survey of syntaxonomy of the Central Podolian dry grasslands, which will address a number of problems associated with a mismatch of dry grasslands syntaxonomy of Ukraine to the general concept adopted in the Western and Central Europe. By working together, a preliminary version of the first paper was prepared and presented at the weekly paper writing seminar in BEE. The paper sparked the interest of the participants of the seminar, who made valuable comments and suggestions, and also allowed us to gain valuable experience and new ideas.

Heathland in the nature reserve "Boberger Niederung" in Hamburg. Photo: authors

During the field trip to the nature reserve "Boberger Niederung". Photo: authors

Jürgen Dengler explains a lichen species in the nature reserve "Boberger Niederung". Photo: authors

The preparation of the data from the 3rd EDGG Expedition in Bulgaria was in more initial stage. Therefore, the first task during the fellowship stay was entering the remaining data from field forms into electronic tables and compiling header-data file and relevé data file. Meanwhile, all soil sample analyses were performed in the soil lab of BEE, and a first draft of the planned paper was elaborated and presented at the paper writing seminar. First results were obtained at the end of the fellowship after applying modified TWINSPAN to the relevé data. The result was 10 clusters, well defined by diagnostic species groups belonging to three vegetation classes. Additional analyses will be performed in the following weeks in order to bring more light on vegetation – environmental conditions relationship and receive better ecological characteristic of detected vegetation units.

Combining work with pleasure

The Fellows had the opportunity to visit the herbarium collection of the Biocentre (Herbarium Hamburgense) and were acquainted with the peculiarities of scientific work, organization and management in the herbarium. They also visited the botanical garden and the greenhouses, where they were particularly interested in the so-called botanical and geographical parts of the garden containing collections of the most typical representatives of both the forest vegetation in different regions of the globe, and dry grasslands, in particular Central European steppes, deserts of Central Asia, the American prairie.

During the Fellowship, a small field trip to the nature reserve "Boberger Niederung" was organized by the supervisor Jürgen Dengler. The site, located in the old Elbe floodplain due to the peculiarities of geomorphology perfectly illustrated the historical development and the genesis of the landscape. The Fellows had the opportunity to see the typical northern German vegetation of sand dunes and in heathlands represented by communities of the *Koelerio-Corynephoretea* and *Calluno-Ulicetea*. In addition, late autumn was a very appropriate time to observe cryptogamic plants. Another highlight in the program was the visit to the "Kalkberg" nature reserve just in the heart of Lüneburg, where the Fellows were introduced to a very atypical vegetation for Northern Germany, that on gypsum outcrops.

In addition to purely scientific work, we were able to see the highlights of Hamburg – one of the largest port cities in Europe, which is often called the "Venice of the North". Indelible impressions were left by a walk along the central part of Hamburg, with its countless bridges and channels, a boat trip on the Elbe, a visit to the

Sandy dry grasslands (mainly Corniculario-Corynephoretum) in the nature reserve "Boberger Niederung". Photo: authors

museum of miniatures, the tropical aquarium in Hagenbeck's zoo and pleasant conversations with the hospitable local people. Furthermore, Jürgen Dengler invited both Fellows and colleagues from BEE to a picture presentation about the 2nd and 3rd EDGG Expeditions at his home in extraordinarily beautiful medieval town of Lüneburg with its original architecture, as if appearing straight from the pages of fairy tales. There, we prepared jointly our meal and spent a lovely evening sharing moments from both expeditions.

Acknowledgements

We are extremely grateful to the EDGG Executive Committee and personally to Jürgen Dengler for organizing the Fellowship, the parental organization IAVS for financial support of this activity, the host group, BEE, for the hospitality and valuable communication, as well as curator of the herbarium, Hans-Helmut Poppendieck, for the wonderful tour of the herbarium and the head of the botanical garden, Carsten Schirarend, for the informative talk about the problems and the management of the botanical garden.

We sincerely hope that the practice of EDGG Fellowship will become a tradition and many young scientists will be able to participate in them.

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The fellows at the flat of the supervisor, Jürgen Dengler, in Lüneburg. Photo: J. Dengler

Impressions from the weekly assembly of the Division BEE in the Biocentre Klein Flottbek. Photo: authors

The supervisor Jürgen Dengler during the sightseeing tour in Lüneburg. Photo: authors

View of the Botanical Garden in Klein Flottbek. Photo: authors

View of Hamburg from the River Elbe. Photo: authors

View from the Kalkberg over the roofs of Lüneburg. Photo: authors

Old sailing boat at the river Elbe in Hamburg. Photo: authors

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.

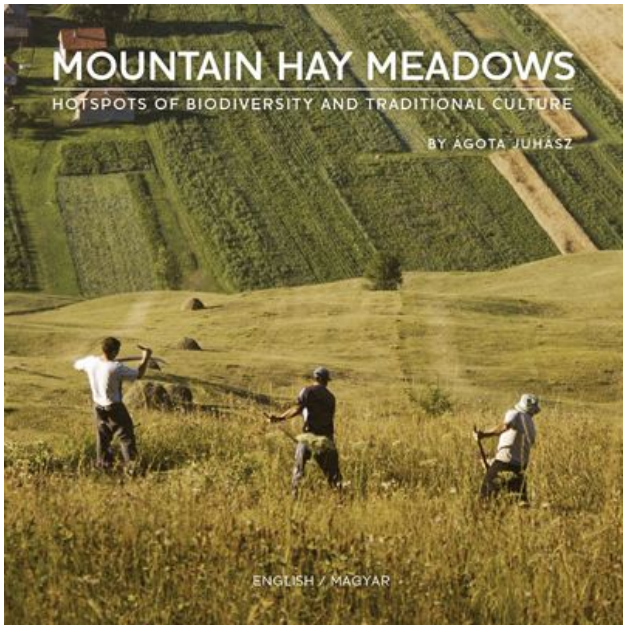
DVD: Mountain hay meadows

Mountain hay meadows: hotspots of biodiversity and traditional culture is a new one-hour film directed by Ágota Juhász

Summary: Traditional hay meadow management in Transylvania created and maintains outstanding biodiversity and landscape, provides healthy food and sustains rural economies and communities. This award-winning film documents a disappearing lifestyle and describes the contradictions and challenges in European policies aimed at protecting these threatened habitats and the small scale farmers who manage them.

Copies of the film are available in English and Hungarian from Barbara Knowles barbara.knowles@yahoo.co.uk for £10/€12 in W Europe or US and €10 elsewhere.

Barbara Knowles, barbara.knowles@yahoo.co.uk



Cover page of the DVD

Information on European soils

There is a very informative portal on soils in the European Union and their properties: http://eusoils.jrc.ec.europa.eu/. There also dry grassland researchers can find a lot of useful information. One can subscribe to the Soil Action Newsletter (just send an e-mail to panos.panagos@jrc.ec.europa.eu). Further, recently the version1.1 of the EFSA Spatial Data Set of European Soils has been released, which contains multiple high-resolution GIS layers of the soils in the EU member states, such as mean topsoil pH. The data files are freely available from: http://eusoils.jrc.ec.europa.eu/library/Data/EFSA/ .

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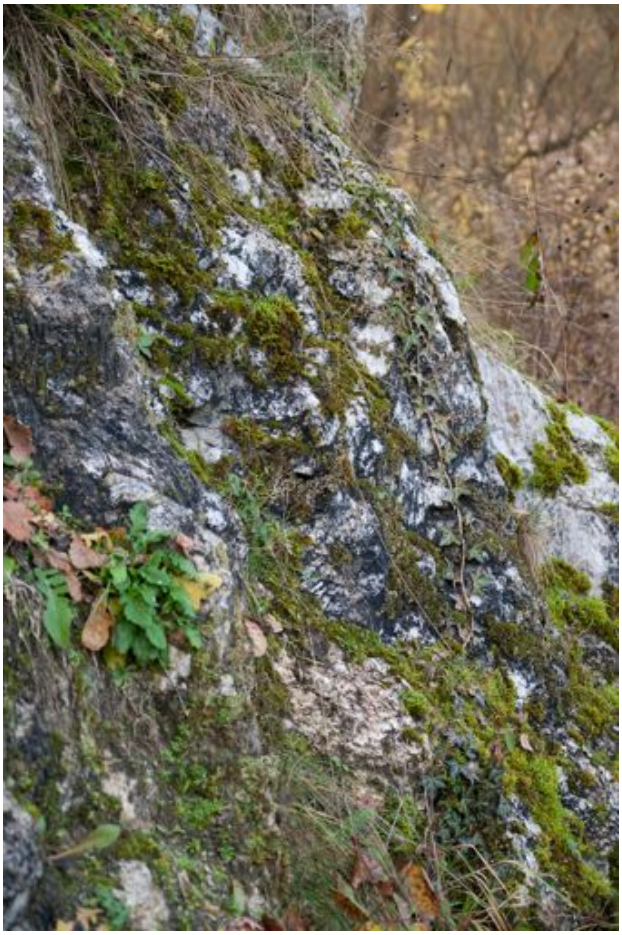

Picture right: Nature reserve "Kalkberg" in Lüneburg with gypsum outcrops that result in basiphilous dry grasslands, a habitat type otherwise extremely rare in the NW German lowlands Photo: J. Dengler

Europe's hay meadows in decline

This contribution provides a report from the seminar "Europe's hay meadows in decline - what are we losing and what can we do? A test case for EU agriculture and biodiversity policy"

"*Hay meadows provide an immense range of benefits to farming communities and wider society. They create some of Europe's most spectacular scenery and cultural landscapes. Simply to watch this natural, environmental and cultural heritage disappear before our eyes is, surely, not an option we can consider*" said HRH the Prince of Wales in a video message to this policy seminar at the European Parliament, Brussels, 8 November 2012

Traditionally managed hay meadows full of flowers, insects and other animal life are among the most biodiverse places in Europe and a source of joy, inspiration and beauty to all. They are a living part of our shared culture and heritage. They provide many environmental, social and economic benefits. They are protected by EU policy and subsidies. Yet they continue to disappear, through abandonment, intensification or conversion to other uses.

This policy seminar discussed how European institutions can protect these treasures and support the farmers who manage them more effectively.

Conclusions and Recommendations

Hay meadows fit well with the EU's 2020 priorities - they offer resource efficiency, a low-carbon economy and jobs in marginalised communities. EU biodiversity targets (both for habitats and species and ecosystem services) mean that we MUST halt hay-meadow decline.

In fact, hay meadows are good "miners' canaries" of High Nature Value farming (The miner's canary depends on the miner, but is more sensitive than him to changes which threaten them both):

- Meadows are clearly part of the cultural landscape and understandable by farmers, policy makers and the public
- They are of undoubted biodiversity importance
- They are generally in poor condition and under great threat
- They are one of the first things to change

EU has agreed the aims and provides the instruments - but not all countries are delivering. The seminar gave the example of Romania, which has a commendable and ambitious scheme for HNV grasslands, but one which needs extending and to be better adapted for hay meadows. But other Member States are lagging far behind in using the tools provided by the EU to pursue EU priorities e.g. Spain has vast areas of HNV farming and hay meadows, but has very limited agri-environment schemes for them.

The EU institutions and governance systems do not ensure consistent effort to deliver EU priorities, or best practice - a situation which makes a mockery of EU goals and institutions. Agri-environment schemes are essential but not enough - we also need measures to support the farming systems and economy. In this context local projects make a crucial difference - they multiply the benefits of top-down schemes. The seminar heard examples from Romania and England.

Post 2013 we must

- Continue to transfer funds from Pillar 1 to agri-environment
- Have agri-environment schemes which are better adapted and supported by other measures, including local projects funded by Pillar 2
- Put in place rigorous ex ante evaluations for Priority 4 (Natura 2000 and HNV farming), and measures that are a response proportionate to the identified needs
- Put in place rigorous ex ante evaluations for Priority 4 (Natura 2000 and HNV farming), and measures that are a response proportionate to the identified needs

To measure policy effects we need monitoring systems using sample surveys of:

- Extent and condition of hay meadows
- Farming systems and practices

All countries should already be doing this under the Common Monitoring and Evaluation Framework (CMEF) for Pillar 2, but most are not doing it; from 2013, the indicators will apply to the whole CAP, so it becomes even more important that they are implemented.

Organized by the Pogány-havas Association with the support of the European Forum on Nature Conservation and Pastoralism, SÓGOR Csaba MEP, DG Environment and the Society of Biology UK.

Seminar report and presentations:

http://mountainhaymeadows.eu/brussels_2012.php

For more information visit

http://www.mountainhaymeadows.eu/

http://www.mountainhaymeadows.eu/online_publication/index.html

http://www.efncp.org/projects/projects-in-romania/poganyhavas/

http://www.treasuresoftransylvania.org/

Barbara Knowles, barbara.knowles@yahoo.co.uk

In memory of our friend and colleague Eszter Illyés

It is with the deepest regret that we announce that our friend and colleague, Eszter Ilyés tragically died on the 18th of October 2012, in a car accident. She left us at the age of thirty-three, far too soon. She will remain in the memory of her loved ones and her friends[1].

We deeply believe that her favourite and beloved Pannonian landscapes, steppes, dry grasslands, plants and trees received her soul back peacefully. During her short and vibrant scientific career she reached many new milestones. She was one of the main contributors and leading spirits of the MÉTA Programme[2] between 2002-2007, with the ambition of building an annotated photo collection of habitat types: the MÉTA Photo Album[3]. She was a follower of Prof. Milan Chytrý in Brno, where she was most welcome. The first author and editor of the great monographic work: „Slope steppes, loess steppes and forest steppe meadows in Hungary"[4] with her partner, Janó. She worked for the Institute of Ecology and Botany[5], and defended her PhD[6] at ELTE University in 2010 while they raised their two daughters. Shortly afterwards she turned to new, exciting challenges at the Research Institute of Organic Agriculture[7]: ecological sward recovery experiments in vineyards to protect against soil erosion and to suppress weeds.

Eszter's professional carrier was only one side of her character. She was also an exceptional personality: her inflexible belief was coupled with great strength and a strong sense of justice. She did not permit any insincerity or injustice. In her every act she aimed at creating something truer, brighter, better. She took the lead in doing so, while we could always count on her creativity, her prolonged enthusiasm and cooperation.

Ferenc Horváth, János Bölöni and the editorial board

[1] http://illyeseszter.blogspot.hu/
[2] http://www.novenyzetiterkep.hu/en/english/node/70
[3] http://www.novenyzetiterkep.hu/en/english/node/510
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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@gmail.com 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.*

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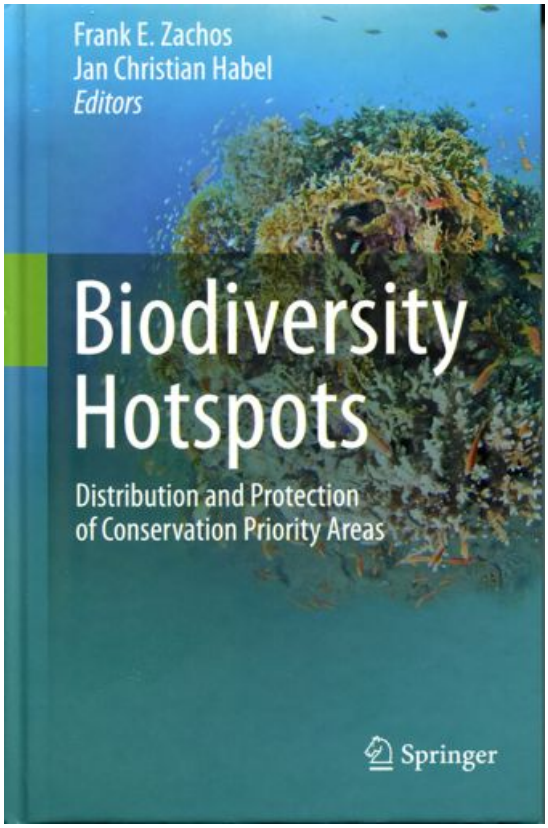
Peltigera sp. (lichen) and Hypnum cupressiforme var. lacunosum (moss), two typical dry grasslands species. Photo: J. Dengler

Ononis repens. Photo: J. Dengler

Book review

Here we present recently published books that might be relevant for grassland scientists and conservationists, both specific grassland titles as well as faunas, floras, or general books on ecology and conservation biology. If you (as an author, editor or publisher) would like to propose a certain title for review, or if you (as an EDGG member) would like to write a certain review (or reviews in general), please contact the Book Review Editor (juergen.dengler@uni-hamburg.de).

Zachos F.E. & Habel J.C. (2011) [Eds.]: Biodiversity hotspots – distribution and protection of conservation priority areas. XVII + 546 pp., Springer, Berlin. ISBN 978-3-642-20991-8. Price: 106.95 €.



This book, co-edited by EDGG member Jan Christian Habel, originated from the conference Biodiversity hotspots – evolution and conservation, organised 2009 in Luxembourg, but has a much broader scope than the original conference. In total, there are 26 articles by world-leading specialists, arranged in six main parts.

Part I (Introductory and global aspects) contains one article that nicely summarises the multiple ways of measuring biodiversity (Davies & Cadotte). Three articles address the question how to set priorities in biodiversity conservation at a global scale, two of them explictly using the well-known concept of "biodiversity hotspots" (see Myers et al. 2000). The final two articles characterise the global biodiversity patterns of vascular plants (Mutke et al.) and of ourselves, the genetic diversity of *Homo sapiens*.

Part II (Biodiversity in the Palaearctic, 5 articles) deals with the richness in our immediate surroundings, addressing the regional biodiversity hotspots such as the Mediterranean Peninsulas (Hewitt), the Alps (Grabherr et al.) and the Carpathians (Sluys et al.). A further two articles exemplify diversity patterns and their driving factors across the Palaeactic ecozone, namely for songbirds and carabid beetles (Schuldt & Assmann). The latter is particularly relevant as there are only few such macroecological studies of invertebrates.

The following parts III (Biodiversity in Madagascar, 3 articles), IV (Biodiversity in the Tropics, 9 articles) and V (Marine biodiversity, 2 articles) might not be so close to the heart of Palaearctic grassland specialists at first glance. However, the well-elaborated studies of various taxa in multiple habitats around the globe, and from genetic to landscape diversity can also be inspiring. Some of the papers specifically deal with threats to biodiversity and ways of sustainable development, and among them, I found Lee et al. particularly relevant, who elaborate the effect of biofuel production on biodiversity conservation. This article shows how unreflected approaches of industrialised countries to solve one environmental problem (climate change) could cause another quite serious environmental problem (biodiversity crisis) in areas far away. The final part VI contains only one chapter with concluding remarks and perspectives and reproduces the 20 biodiversity targets 2011–2012 of the CBD conference in Nagoya, Japan, in October 2010. A short but useful index finishes the volume.

To conclude: the editors managed to compile a valuable collection of high-quality papers, most of them with new content and not like other "conference volumes" just a mish-mash of previously published topics. The book is a good place to get an up-to-date picture of the knowledge and ideas neighbouring disciplines have on the topic of biodiversity, its origin and its conservation. For example, I as a botanist, read with interest the articles on human and deep-sea diversity, subjects for whose lecture I normally would not find the time, but with this nicely-produced, colourfully illustrated book, sitting in an armchair, one easily forgets about the borders of the own discipline. What a pity that this book is so expensive that only few readers probably will afford to buy it!

Myers N., Mittermeier R.A., Mittermeier, C.G., Defonseca, G.A.B. & Kent, J. (2000): Biodiversity hotspots for conservation priorities. Nature 403: 853–858.

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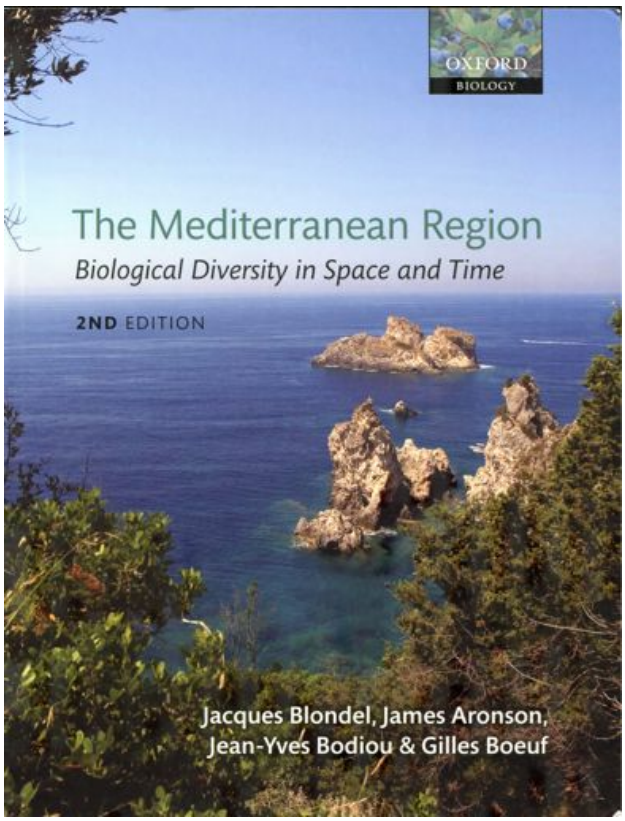
Blondel J., Aronson J., Bodiou J.-Y. & Boeuf G. (2010): The Meditrerranean Region – Biological diversity in space and time. 2nd ed. XV + 376 pp., Oxford University Press, Oxford. ISBN 978-0-19-955799-8. 49.99 €.

The Mediterranean region of southern Europe, northern Africa and the Near East is considered as the only European biodiversity hotspot of global relevance (Myers et al. 2000), and particularly the southern European peninsulas – the Iberian Peninsula, the Apennine Peninsula and the Balkan Peninsula – with their offshore islands are extraordinarily species-rich (Hewitt 2012). This book by a group of researchers based in Montpellier, which is now available in a second edition, aims at addressing the ecology and diversity of the Mediterranean ecosystems in all their complexity, both terrestrial and marine.

The book is organised into 13 chapters, the first of which provides the background information on physical geography (like its delimitation and the fact that Mediterranean-type climate has only existed for about 3 million years). The second (Determinants of present-day biodiversity) highlights how the present-day biogeographic patterns in Europe came about mainly through recolonisation from Pleistocene refugia on the three Mediterranean peninsulas, which is still reflected by the fact that density of endemics (narrowly distributed species) within Europe peaks on the Mediterranean peninsulas and islands. Chapters 3 and 4 (Present-day terrestrial and marine biodiversity, respectively) highlight that indeed the Mediterranean Region is a global biodiversity hotspot for many taxa, hosting for example 10% of all vascular plants and even 18% of all sea mammals, and they briefly describe patterns of diversity and endemism in the main taxonomic groups. Among the further chapters, chapter 6 (A patchwork of habitats; 19 pp.) aims at providing overviews of the most characteristic terrestrial and marine habitats, but this is so short and superficial that it hardly can be seen as useful. For example, Mediterranean grasslands are treated on half a page only.

The final four chapters address how humans interact with Mediterranean ecosystems and their biota. Chapter 10 highlights that humans have shaped the Mediterranean Basin for millennia. Chapter 11 addresses biodiversity losses and gains, mostly due to humans and mostly in more recent times. The topic of chapter 12 are the recent major threats to biodiversity that are usually summarised under the label "global change", i.e. climate change, habitat destruction, pollution and biological invasions, while the final chapter outlines problems and possible solutions ("steps towards sustainability") of the future.

All in all, it is an informative book, which provides an overview of the wide topic of the title and assists in retrieval of specialist literature with an extensive reference list (38 pp.). However, there are also some shortcomings that could be improved in future editions.



For example, I was quite astonished to find a book about the Mediterranean without a single climate diagram despite the peculiar climate is the key feature of the region and for its delimitation. Further, the authors seem to be completely ignorant about scale-dependencies in ecology, such as species-area and endemics-area relationships, and that these are normally not linear (e.g. Arrhenius 1921, Dengler 2009). Given the fact that both species richness and endemics richness increase with area but at a decelerating rate renders the calculation of ratios of endemics or species and area (p. 54) or the presentation of maps of endemism rate without specifying a reference area (p. 74) inappropriate. Actually, on page 115 the authors present some species-area data of vascular plants in Mediterranean communities, which exemplify this non-linear relationship.

Arrhenius O. (1921): Species and area. J. Ecol. 9: 95–99.

Dengler J. (2009): Which function describes the species-area relationship best? – A review and empirical evaluation. J. Biogeogr. 36: 728–744.

Hewitt G.M. (2012): Mediterranean peninsulas: the evolution of hotspots. In: Zachos F.E., Habel J.C. [Eds.]: Biodiversity hotspots – Distribution and protection of conservation priority areas: pp. 123–147, Springer, Berlin.

Myers N., Mittermeier R.A., Mittermeier, C.G., Defonseca, G.A.B. & Kent, J. (2000): Biodiversity hotspots for conservation priorities. Nature 403: 853–858.

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Forthcoming events

6th Biennual Conference of the International Biogeography Society (IBS)
9–13 January 2013, Miami, United States
http://www.biogeography.org/html/Meetings/index.html
Deadline for abstracts: has passed

12th Meeting on Vegetation Databases
Linking vegetation and plant trait databases
4–6 March 2013, Leipzig, Germany
http://www.botanik.uni-greifswald.de/idiv_meeting_2013.html
Deadline for abstracts: 20 January 2013

22nd Workshop of the European Vegetation Survey (EVS)
9-10 April 2013, Roma, Italy
http://www.scienzadellavegetazione.it/22th_workshopEVS2013/
Deadline for abstracts: 31 December 2012

7th Annual Meeting of the Specialist Group on Macroecology of the GfÖ
13–15 March 2013, Göttingen, Germany
http://macro2013.uni-goettingen.de/
Deadline for abstracts: 15 January 2013

22nd Workshop of the European Vegetation Survey
9–11 April 2013, Rome, Italy
http://www.scienzadellavegetazione.it/22th_workshopEVS2013/
Deadline for abstracts: 31 December 2012

10th European Dry Grassland Meeting (EDGM)
When theory meets practice: conservation and restoration of grasslands
24-31 May 2013, Zamość, Poland
Registration is open at http://www.edgg.org/edgg_meeting_2013.html

Jahrestagung der Floristisch-soziologischen Arbeitsgemeinschaft (FlorSoz)
14–17 June 2013, Freiburg (Breisg.), Germany
http://www.tuexenia.de/

56th Symposium of the International Association for Vegetation Science (IAVS)
Vegetation patterns and their underlying processes
26–30 June 2013, Tartu, Estonia
http://iavs2013.ut.ee/
Deadline for abstracts: 15 March 2013

6th EDGG Research Expedition to the Altai Mts.
21 July - 1 August 2013, Republic of Khakasia in south-central Siberia, Russian Federation
Coordinators: Nikolai Ermakov (brunnera@mail.ru) and Jürgen Dengler (juergen.dengler@uni-hamburg.de)

11th INTECOL Congress (and 100th anniversary of the British Ecological Society, BES)
Into the next 100 years – Advancing ecology and making it count
18–23 August 2013, London, United Kingdom
http://www.intecol2013.org/

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

Corniculario aculeatae-Corynephoretum cansecentis (all. Corynephorion cansecentis, cl. Koelerio-Corynephoretea) with Corynephorus canescens and many cryptogams. Photo: J. Dengler

Preissia quadrata, a typical liverwort of gypsum and limestone rocks. Photo: J. Dengler

Butterfly on Lysimachia cletroides, Jirisan National Park, Korea. Photo: J. Dengler

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Important dates: *The deadline for Bulletin 18 is 20 February 2013*

Bulletin 18 to appear: March 2013

Bulletin 19 to appear: June 2013