

of the European Dry Grassland Group



The most important event for the EDGG during the last months was the 9th European Dry Grassland Meeting in Prespa, Greece. This Bulletin issue is devoted mainly to this meeting. It also refers on the EDGG Research Expedition in Greece and informs about the next planned EDGG Research Expedition to Altai, Russia. As many of you participated at the Prespa meeting, we believe, the detailed report and photographs will refresh your memories of this event. For those of you, who were not present, they might serve as an inspiration for your participation at the Zamość meeting in Poland during the next year. As usually, we also inform on current developments inside the EDGG and the IAVS. We hope that you will find this issue interesting and useful.

Editors

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*View from shore of Lake Prespa towards the island of Ag. Achillios.
Photo: Steve Venn, Prespes, 19 May 2012*

October 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): Thomas Becker (beckerth@uni-trier.de) and Ute Jandt (jandt@botanik.uni-halle.de): 213

Working Group on Dry Grasslands in the Nordic and Baltic Region (contact: Jürgen Dengler - dengler@botanik.uni-hamburg.de): 83 members

South-East European Dry Grasslands (SEEDGG) (contact: Iva Apostolova - iva@bio.bas.bg): 218 members

Mediterranean Dry Grasslands (Med-DG) (contact: Michael Vrahnakis - mvrahnak@teilar.gr): 281 members

Topical Subgroup Grassland Conservation and Restoration (contact: Péter Török - molinia@gmail.com): 52 members

EDGG Executive Committee and responsibilities of its members

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

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

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

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

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

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

EDGG Fellowships

The EDGG Executive Committee has decided to use part of the financial support that we receive from our mother organisation IAVS to establish EDGG Fellowships. They will 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 Fellowship will go to Dr. Anna Kuzemko from the National Dendrological Park Sofievka in Uman', Ukraine, who organised the 2nd EDGG Research Expedition and hosted the 8th European Dry Grassland Meeting. From 19 October to 11 November she will come to the group of Jürgen Dengler in Hamburg to work jointly with him and Thomas Becker, Trier, on a first ISI publication of the data from the EDGG Research Expedition in Ukraine. We have applied for money for two more EDGG Fellowships this autumn, but they are not yet confirmed.

Information from our mother organisation IAVS

Free membership and free journal subscription now possible

The Global Sponsorship Committee (GSC) of the IAVS has adopted a new scheme to grant vegetation scientists with low income access to the benefits of being an IAVS member and to get online subscriptions of the IAVS journals, *Journal of Vegetation Science* and *Applied Vegetation Science*. There are three categories according to the average income level of the country, based on the gross domestic product at purchasing power parity (GDP PPP) per capita for the respective year (you can look up the approximate values for your country at the web page [http://en.wikipedia.org/wiki/List_of_countries_by_GDP_\(PPP\)_per_capita](http://en.wikipedia.org/wiki/List_of_countries_by_GDP_(PPP)_per_capita)):

- (a) Countries with average per-capita income below 10,000 US \$ PPP (e.g. Albania and Ukraine): all scientists are entitled to free IAVS membership if they send an application to the IAVS Administrator.
- (b) Countries with average per-capita income between 10,000 and 25,000 US \$ PPP (e.g. Serbia and Slovak Republic): you are entitled to free IAVS membership if you are student, PhD student, unemployed, or retired. To apply, you need to prove this status by the scan of the respective document.
- (c) Countries with average per-capita income above 25,000 US \$ PPP (e.g. Czech Republic or Switzerland): you can apply for free membership with a detailed

explanation why you personally cannot afford IAVS membership despite living in a rich country

If you receive free IAVS membership and institution does not have access to the IAVS journals (*Journal of Vegetation Science*, *Applied Vegetation Science*), you are also entitled for free personal online subscriptions. You just need to carefully check whether your university/institution has JVS/AVS subscriptions, and if not, state this clearly in your application for free membership.

Application must be made on the form available online (<http://www.iavs.org/uploads/Application%20form%20waiver%20IAVS%20membership.doc>) and be sent to the IAVS Administrator Dr. Nina Smits (admin@iavs.org). They will be handled continuously and need to be renewed every year.

Financing of the IAVS subgroups

The Council of International Association for Vegetation Science on its meeting at the 55th IAVS Symposium in Mokpo, South Korea finally approved the modified Bylaws of EDGG (see Bulletin No. 15, p. 3 for modifications and our homepage for the complete version). They are now fully valid.

Further, the Council agreed to give its active subgroups (presently EDGG, EVS, North American Section) significant financial support from 2013 onwards:

Basal financial support of 500 € per year (to be used freely by the Working Groups)

Possibility to apply for grants for projects worth up to 3,000 € per year

Honorarium of 1,000 € (or 1,500 € for remote venues) to cover cost of one representative of the chairs of each Working Group for participating in the annual Symposium of the IAVS and to represent the Working Group there (the Working Groups are free to decide which chair should get the honorarium and can split it among more than one chair).

Membership development

As of 1 September 2012, we had 839 members from 52 countries. The largest number of members are from Germany (209), Greece (131), Italy (37), Ukraine (36), Slovakia (35), Spain (32), Romania (31), and Poland (29). It seems that high membership numbers are closely connected to venues of the European Dry Grassland Meetings as among the eight countries all venues of the past four EDGG conferences (Germany, Slovakia, Ukraine, Greece) and of the forthcoming conference in 2013 (Poland) are represented.

EDGG Special Features

Tuexenia 2012

In July 2012, the 7th Dry Grassland Special Feature appeared in *Tuexenia*, guest-edited by Dobromil Galvanek (SK), Thomas Becker (DE) and Jürgen Dengler (DE). It comprises four articles, including the first ISI article from an EDGG Expedition, and the Editorial. The latter in addition to introducing the articles, reports on EDGG activities of the preceding year (with some nice photographs) and analyses the bibliometric performance of the articles in the EDGG Special Features in *Tuexenia* (which were cited approx. 4x as often as other *Tuexenia* articles). Together, this year's Special Feature had 127 pages, which is 33% of the overall content of *Tuexenia*.

The articles are:

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.

Ketner-Oostra, R., Aptroot, A., Jungerius, P.D., Sýkora, K.V. (2012): Vegetation succession and habitat restoration in Dutch lichen-rich inland drift sands. – *Tuexenia* 32: 245–268.

Jeschke, M. (2012): Cryptogams in calcareous grassland restoration: perspectives for artificial vs. natural colonization. – *Tuexenia* 32: 269–279.

Becker, T., Schmiede, C., Bergmeier, E., Dengler, J., Nowak, B. (2012): Nutrient-poor grasslands on siliceous soil in the lower Aar valley (Middle Hesse, Germany) – neglected vegetation types in the intersection range of four classes. – *Tuexenia* 32: 281–318 + 1 table.

Dengler, J., Becker, T., Ruprecht, E., Szabó, A., Becker, U., Beldean, M., Bita-Nicolae, C., Dolnik, C., Goia, I., Peyrat, J., Sutcliffe, L.M.E., Turtureanu, P.D., Ugurlu, E.: (2012) Festuco-Brometea communities of the Transylvanian Plateau (Romania) – a preliminary overview on syntaxonomy, ecology, and biodiversity. – *Tuexenia* 32: 319–359 + 2 tables.

The articles are open access and already freely downloadable from the FlorSoz site (http://www.tuexenia.de/index.php?id=14&no_cache=1), and will become available from the EDGG site soon.

Tuexenia is covered in the Web of Science and in SCOPUS since 2011 and will receive its first impact factor for 2013 (based on the articles published 2011 and 2012). This year, it took only slightly more than one month to get the content available in the Web of Science databank, while 2011 nearly half a year had elapsed.

Tuexenia 2013

The 8th Dry Grassland Special Feature (on temperate and boreal dry grasslands) is presently coordinated by

Thomas Becker (DE), Dobromil Galvanek (SK), Triin Reitalu (EE), Eszter Ruprecht (RO), and Jürgen Dengler (DE) as guest editors. Until the deadline, we have received 13 article proposals, of which 10 have been invited. We are now looking forward to the submission of the full articles until November 2012.

Hacquetia 2013

In connection with this year's European Dry Grassland Meeting in Prespa, Greece, EDGG had planned a Special Feature on Mediterranean and sub-Mediterranean dry grasslands, upon the invitation of the Chief Editor of the Italian journal *Annali di Botanica – Coenology and Plant Ecology*, Fausto Manes. He gave us the written promise that EDGG is free in appointing the team of guest editors, and accordingly we assembled the following group of experienced scientists: Iva Apostolova (BG), Romeo Di Pietro (IT), Rosario Gavilán (ES), Ioannis Tsiripidis (GR), and Jürgen Dengler (DE). These five guest editors had solicited proposals for 18 papers and evaluated them in detail. Then, all of a sudden and without giving reasons, Fausto Manes withdrew his offer and cancelled the planned Special Feature in his journal.

This brought EDGG and the guest editors in a very odd situation as we could not keep our promises to the authors after the Chief Editor had broken his promises to us. However, it turned out that three other journals – *Geobotany Studies*, *Lazaroa*, *Hacquetia* – are highly interested in producing the EDGG-edited Special Feature, under the same or even better conditions than originally agreed with *Annali di Botanica*. The offers were all good and particularly for *Lazaroa* and *Hacquetia* very similar. After intensive discussions, we decided to produce our Special Feature in *Hacquetia*, a journal owned by the Slovenian Academy of Sciences and published by the professional publisher Versita. The *Hacquetia* Chief Editor, Urban Silc, is also a member of EDGG.

Benefits of publishing our Special Feature in *Hacquetia* include:

- *Hacquetia* appears in print and open access online.
- *Hacquetia* is already included in the SCOPUS and BIOSIS Previews literature databases and under review for Web of Science so that we can hope for inclusion in the near future.
- Once a paper is accepted it will be published online first (with a DOI) without waiting for the other articles of the issue. This ensures fast visibility and citability of your research.
- *Hacquetia* offers us for 2013 the complete second (autumn) issue of that year with up to 200 pages.
- *Hacquetia* offers for the years beyond 2013 a continuation of an EDGG-guest edited series of papers on Mediterranean dry grassland on an annual or biennial basis.
- *Hacquetia* is not restricted to botany but equally welcomes zoological papers thus nicely corresponds to the all-inclusive concept of EDGG.
- *Hacquetia* allows full color figures and electronic supplements.

• Hacquetia has a very attractive homepage at: <http://versita.metapress.com/content/120766/>

From the 18 proposed articles, we have now invited 10 and conditionally invited 5 others. The authors can submit these until February 2013. Further, the additional space in Hacquetia compared to the original solution in *Annali di Botanica*, and the openness of Hacquetia towards zoological papers now allows us to launch a second call for contributions:

Call to contribute to:

Hacquetia
Special Issue 12(2) on Mediterranean and sub-Mediterranean dry grasslands

Eds. Jürgen Dengler, Iva Apostolova, Romeo di Pietro, Rosario Gavilán & Ioannis Tsiripidis

General outline: All aspects of ecology of dry grasslands s.l. and biology of their organisms (plants, animals, fungi, microorganisms) are admissible, but not purely agronomical studies. This includes: community ecology, syntaxonomy/phytosociology, population biology, ecophysiology, animal-plant interactions, landscape ecology, biogeography, taxonomy, conservation biology, and restoration ecology. Preference is given to studies from the Mediterranean and sub-Mediterranean zones of the Palaearctic, but exceptionally studies from other parts of Eurasia are possible. The corresponding author must be a member of EDGG (but membership is free of charge).

Particularly wanted in this second call: To complement the already invited papers (mostly dealing with vascular plants in Italy, Greece and Bulgaria) in terms of taxonomic and geographic coverage, we are particularly looking for:

- studies dealing with animals (invertebrates, vertebrates) and cryptogams (fungi, lichens, bryophytes) in dry grasslands,
- studies from (sub-) Mediterranean regions not yet covered by the contributions, namely Iberia, S France, ex-Yugoslavia, Albania, Turkey, Near East and North Africa,
- or a combination of both.

However, also any other proposal within the general outline is still possible. If you want to contribute to the Special Issue 2013, you need to submit a preliminary abstract for evaluation to the chair of the guest editors, Jürgen Dengler (juergen.dengler@uni-hamburg.de) by **20 October 2012**. The abstract should be 150–250 words long, be structured into Aims (or Questions) – Location – Methods – Results – Conclusions, contain names and affiliations of all authors, and indicate the corresponding author as well as possible time of submission. Note that it is not necessary to present a final abstract, but to use the abstract to give us editors a clear idea about the aim and methods of the paper and which are the expected results and how you plan to present them.

We will evaluate the abstracts based on the four criteria formal aspects, topical fit, scientific quality, and

scientific novelty. Around 10 October we will inform you which full papers we invite for submission. Only those full papers that have been invited based on the screening of the abstracts can be submitted, and this will be possible at least until **February 2013**.

Virtual Special Feature of Applied Vegetation Science

The Virtual Special Feature (VSF) of Applied Vegetation Science (AVS; impact factor: 1.678) on Towards a consistent classification of European grasslands is on a good way. This VSF is jointly organised by the two IAVS Working Groups EDGG and EVS (European Vegetation Survey) and guest-edited by Jürgen Dengler (DE), Erwin Bergmeier (DE), Wolfgang Willner (AT) and Milan Chytrý (CZ). There have been two deadlines of abstract submission, one in autumn 2011 and one in summer 2012, together resulting in 24 proposed papers. Of these, after detailed evaluation of the abstracts, 14 have been invited and three more additionally invited, covering all types from dry to wet, acidic to base-rich as well as lowland to alpine. The first two articles have already been submitted, but we expect that the production of the VSF due to the complexity of such large-scale classification papers will extend at least until 2014, while accepted papers will be published continuously.

Special Issue of Agriculture, Ecosystems and Environment (grassland diversity)

The Special Issue of Agriculture, Ecosystems and Environment (AGEE; impact factor: 3.004) on Grassland biodiversity: patterns, processes and conservation, guest-edited by Jürgen Dengler (DE), Péter Török (HU), Monika Janišová (SK), and Camilla Wellstein (DE) is developing nicely. A total of 20 mostly botanical articles from the proposed 68 abstracts have been invited, many of which are already in the peer-review process. The deadline of submission for invited papers has been extended until **31 October 2012**.

Special Issue of Biodiversity & Conservation (grassland diversity)

Of all the present EDGG-edited Special Issues, the one in Biodiversity & Conservation (BIOC; impact factor: 2.238) on Diversity patterns in European grasslands across taxa, regions and scales is already the farthest. The guest editors Jan-Christian Habel (DE), Michal Wiezik (SK), Péter Török (HU), Monika Janišová (SK), Camilla Wellstein (DE), and Jürgen Dengler (DE) have invited 27 articles, both zoological and botanical. Finally, 21 of them (78%) have been submitted until the extended deadline (31 August 2012) and are now in the peer-review process.



Arbeitsgruppe Trockenrasen (Germany)

The Arbeitsgruppe Trockenrasen is the regional subgroup of EDGG for Germany with presently 213 members. It was founded in 2004, with the aim to compile a dry grassland vegetation database and produce a classification of dry grassland syntaxa for publication in the German phytosociological series *Synopsis der Pflanzengesellschaften Deutschlands*. Presently, the group renews its focus on completion and analysis of a comprehensive German vegetation-plot database of dry grassland vegetation. We expect that the accessibility of dry grassland vegetation data on a national scale will strongly enhance the potential to study and protect biodiversity of German dry grasslands. Therefore, we warmly invite all members and interested persons to contribute their dry grassland plot data, help with digitization of relevés from literature, and/or participate in the data analysis together with the presently active group of Thomas Becker, Ute Jandt, and Jürgen Dengler.

With this contribution, we also want to announce a change of contact persons of the AG Trockenrasen. Jürgen Dengler wishes to concentrate on his positions as co-chair of EDGG and as contact person of the Working Group on Dry Grasslands in the Nordic and Baltic Region and therefore has resigned from his leading position in the AG Trockenrasen.

From now on, the contact persons for the AG Trockenrasen are:

Dr. Thomas Becker: Dept. of Geobotany, Faculty of Geography and Geosciences, University of Trier, Behringstr. 21, 54286 Trier, Germany, Phone +49 (0)651 2012205, E-mail: beckerth@uni-trier.de.



Thomas is a lecturer and senior researcher for plant ecology at the University of Trier. His scientific interests are in the fields of vegetation science and population ecology focusing on dry grasslands; specific interests cover biodiversity research, classification, vegetation dynamics, and population biology of endangered plants including plant reintroductions. Besides this, he is working on vegetation change in deciduous forests and running waters. Further activities cover plant invasions, vegetation databases, and population biology of tropical plants of South America. For further details, please visit his homepage at: <http://www.uni-trier.de/index.php?id=43822>.



Dr. Ute Jandt: Geobotany and Botanical Garden, Institute of Biology, Martin Luther University Halle-Wittenberg, Am Kirchtor 1, 06108 Halle, Germany, Phone +49 (0)345-5526287, E-mail: ute.jandt@botanik.uni-halle.de.

Ute is a researcher at the Institute for Biology/Geobotany and Botanical Garden at the Martin-Luther-University in Halle/Saale. She is a member of the newly founded iDiv - German Centre for Integrative Biodiversity Research (<http://www.idiv-biodiversity.de/>) and the manager of the national vegetation database GVRD (http://www2.biologie.uni-halle.de/bot/vegetation_db/) which currently holds 112954 vegetation relevés from whole Germany. Currently, she is involved in research on vegetation composition and species co-occurrence patterns, vegetation change over time, plant community assembly, and monitoring of Natura-2000 habitats.

The 9th European Dry Grassland Meeting in Greece (19-23 May 2012)

This text presents an overview of the 9th EDGM of Prespa. It was intended to be included in the previous EDGG Bulletin, but time restrictions, other deadlines and the pressure of field data collection hindered its preparation. However, the author feels sure that this short trip back to the events in May is still welcomed by the audience due to the unforgettable moments participants shared in Prespa.



Participants of the meeting

One of the core activities of the EDGG is the organization of annual scientific meetings. The exchange of current knowledge regarding all aspects of grassland ecology, management, restoration, etc. is an major element of the meetings, but perhaps the most important is the opportunity for the local characteristics and peculiarities of grassland resources to be presented, communicated, discussed and promoted. After the central European dry grasslands and the eastern European steppes¹, in 2012, the EDGG lights turned to Southern Europe. This time, the Hellenic Range and Pasture Society (www.elet.gr) co-organized the EDGM in Greece.

The exceptional area of Prespa, northwestern Greece, hosted the event from 19 to 23 May 2012. The Information Centre of Prespa National Forest Management Body, by the western lakeshore of Micro Prespa, provided the perfect location for communicating scientific ideas and was highly appreciated by all participants. In total, 220 people registered; more than 120 people participated; 307 authors from 28 countries (Greece, Armenia, Australia, Austria, Bulgaria, Croatia, Cyprus, Czech Republic, Germany, Denmark, Sweden, Spain, Finland, United Kingdom, Hungary, Ireland, Iran, Italy, Japan, Kazakhstan, Poland, Romania, Russia, Slovakia, Slovenia, Turkey, Ukraine, and USA) produced 123 papers (101 posters and 22 talks) and accepted to present either orally or exhibited as posters.

Grazing activity, as an ecological driver that mostly shapes southern European dry grasslands, was the central scientific interest of this conference. Grazing may alter the floristic composition of grasslands by favouring or disadvantaging specific plant species, the faunal character of grasslands by forming or not attractive sites for animals, and the abiotic conditions of grasslands by affecting soil and microclimatic processes. This biological activity also supports an important rural

economic activity - livestock husbandry. While livestock grazing is a key factor in sustaining high total biodiversity in the Mediterranean, a significant decline of total biodiversity of natural or semi-natural grasslands of the Mediterranean Basin is observed standing on socioeconomic basis: unregulated (irrational) grazing, land use/type changes, and abandonment of traditional human interventions; finally all lead to habitat shrinking and loss (shrub encroachment and afforestation). All these issues and dimensions of grazing/livestock influences were dealt with in Prespa through sessions dedicated to impact of grazing on abiotic and biotic conditions of dry grasslands, ecology and management of grasslands and the socioeconomic consequences of these influences.

The conference was devoted to Dr. Arne Strid, a living legend who dedicated his life to the exploration of floristic elements of Greece and greatly contributed to the knowledge of the Greek rangeland flora. From the early years of his professional life, Arne together with his wife Barbro, organized numerous missions to explore and promote via his writings, one of the most valuable treasures of Greece: its flora.

The conference started on the sunny morning of Saturday 19th of May with the introductory session, where participants were welcomed by Michael Vrahnakis (General Secretariat of Hellenic Range and Pasture Society, European Dry Grassland Group), Zoi Koukoura (President of Hellenic Range and Pasture Society) and Vasilios Tsepas (Mayor of Prespa). A welcome was also given by Prof. Panagiotis Dimopoulos from the Greek Commission of Natura 2000, and Prof. Angelika Schwabe (Floristisch-soziologische Arbeitsgemeinschaft; FlorSoz)). Dr. Nikos Yiannakis (Director of the Management Body of the Prespa National Park) and Mrs. Myrsini Malakou (Managing Director of the NGO Society for the Protection of Prespa) offered us



Shore of Ag. Achillios. Photo: S. Venn

introductory notes presenting the natural beauty of the area of Prespa and the efforts committed to restore, conserve and promote Prespa's natural resources. After that participants enjoyed the mental long journey from Theophrastus up to the modern data basing techniques for floristic records guided by Dr. Arne Strid. All participants had the opportunity to learn from Dr. Arne Strid about the efforts committed by the pioneer botanists from the ancient Greece, the ancient Rome, to the early of 18th century up to the last years, ending with the recent efforts to develop electronic data bases. The presentation was supported by some rare black and white photos of these botanists, snapshots from their lives and a lot of stories about their efforts. The audience admired their efforts and appreciated their personalities.

The first session, chaired by Panagiotis Dimopoulos, focused on the impact of grazing on the biotic environment (grazing and plant/animal interactions, species composition, etc.) included four talks by Orsolya Valkó (grazing on species composition of grasslands along a moisture gradient), Sampson Panajiotidis (grazing and late Holocene vegetation changes), M. Kerim Gullap (vegetation structure of Eastern Anatolia), and Manolis Karmiris (grazing and European hare). Session 2, chaired by Vasilios Papanastasis, focused on the impact of grazing on the abiotic environment (soil properties, land use changes, etc.) included 4 talks by Li Qiang (soil properties in grazed versus mown lands in Inner Mongolia), Didem Ambarli (grazing and environmental variables), Olga Demina (steppe vegetation of the Don river), and Ji Li (dry meadows habitats for carabid beetle). Session 3, started on the morning of the Monday 21st of May chaired by Solvita Rusina and Laco Mucina, and focused on ecology and management of dry grasslands (syntaxonomy, diversity, etc.) and included 5 talks by Laco Mucina (an overview of syntaxonomical, chorological and evolutionary assembly of Festuco-Brometea), Jana Slancarova (butterfly richness affected by landscape heterogeneity), Stephen Venn (bee diversity and urban dry meadow habitats), Zeki Acar (methods for improvement of

botanical composition), Costas Kirkopoulos (post-fire vegetation restoration), and Agapi Papazafeiriou (heavy metal transfer). At the end of the session the audience had the opportunity to watch (and learn from) the lively but scientific debate between Irina Safronova and Laco Mucina about two different schools though about the classification and typology of the class Festuco-Brometea. The evening of the same day, the 4th Session, chaired by Guy Beaufoy, focused on the societal aspects of dry grasslands (policy, economic evaluation, etc) and included 5 talks by Christos Rukos (political aspects on grassland sustainability), Inge Paulini (a pilot agri-environment programme for Transylvania), Stavros Tsiantikoudis (economic evaluation and operational research), Olga Burova (past/present forest-steppe landscape of upper Don basin), and Dimitrios Chouvardas (diachronic evolution in pastoral landscapes of Greece). Finally, the first (Saturday, 19) and the third (Monday, 21) day 101 posters were displayed to the audience. The posters covered a wide range of the conference interests from a broad geographical scope, and were positively met by the participants.

The general assemblies of the organising societies took place after the first (HERPAS) and the third (EDGG) day's oral presentations (a special report for the assembly of EDGG is found in this Bulletin issue, pp. 10–13).



Participants Solvita Rusina, Li Ji, Guy Beaufoy and Natasa Pipenbaher visiting the village of Ag. Germanos. Photo: S. Venn

The second day (Sunday, 20th), the participants had the opportunity to visit Mt. Devas (1350 m), which covers the W and NW parts of the Prespa National Park, bordering with Albania (W) and Lake Macro Prespa (N). The soils are limestone and the area harbours more than 900 plant species and 10 habitat types (included in the European Directive 92/43/EEC); 3 of them being of priority at EU level (*6210, *6220, and *9562 Endemic forests with *Juniperus* spp. (code 9562) found in the N and E part of Mt. Devas, dominated by *Juniperus excelsa*, being unique for EU). The original plans for the second excursion (fourth day, Tuesday 22th) were to visit Mt. Varnous (over 2000 m). The participants arrived there, but heavy rain forced them to move lower and visit the isthmus that separates Lakes Micro and Macro Prespa, where the Natura 2000 priority habitat type *6120 - Xeric sand calcareous grasslands is situated (the habitat was recently reported for the first time in Greece), and the island of Agios Achilios. The last day of the conference (Wednesday 23rd) was devoted to the calcareous dry grasslands of Mt. Sfika (or Mt. Triklarion, 1750 m). It is located at the southern border of Prespa National Park and it supports 13 habitat types (included in the European Directive 92/43/EEC); 4 of them being of priority at EU level (*6210, *6220, *91E0, *9562) and more than 1000 plant taxa. Excursions were guided by Arne Strid, George Fotiadis, Yiannis Tsiripidis, Yannis Kazoglou and Michael Vrahnakis.

The 9th EDGM in Prespa – The salt of life

Apart from the previously mentioned basic structure of the lecture/field trip elements of the EDGM in Prespa, the Organizing Committee had prepared several peripheral events that provided extra interest for the participants.

During the conference, Young Investigator Prizes were awarded to the three best oral and poster presentations by young EDGM members (< 34 years in age). Among these, the First Prizes were € 75 Book Vouchers from Wiley-Blackwell. The presentations were evaluated according to the five aspects/criteria (i) novelty and relevance of the research; (ii) appropriateness and quality of the methods applied; (iii) presentation of poster/talk appetizer in the lecture hall; (iv) layout and presentation of the poster/talk; (v) handling of questions and comments by the author in the poster/talk session. The six winners were the following:

Oral competition

- (i) Didem Ambarli (Turkey) for Effects of livestock grazing and environmental variables on the diversity of Anatolian steppes - D. Ambarli, C.C. Bilgin
- (ii) Jana Slancarova (Czech Republic) for Effect of landscape heterogeneity on local butterfly richness: Xeric grassland reserves of South Moravia, Czech Republic – J. Slancarova, J. Benes, M. Kristynek, P. Kepka, M. Konvicka
- (iii) Inge Paulini (Germany) for Pilot agri-environment programme for threatened meadow-steppe grasslands: a case study from Transylvania (Romania) - I. Paulini, M. Barbos, A. Crisan, G. Jones, L. Rákósy, A. Rus, W. Schumacher, C. Sitar, E. Stoianov, N. Timus

Poster competition

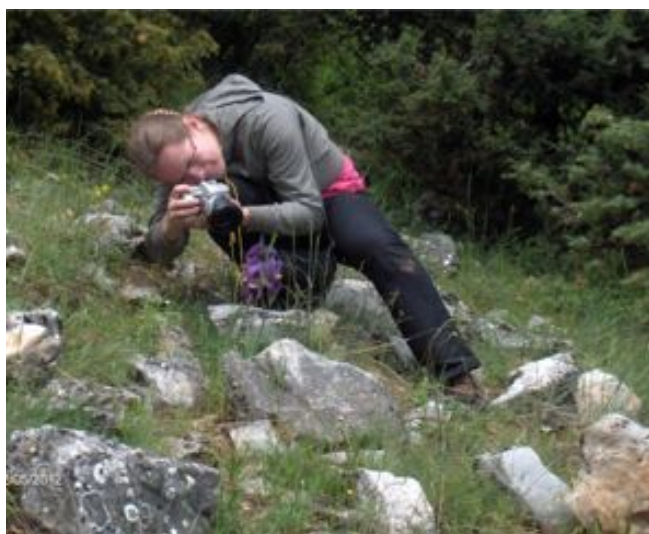
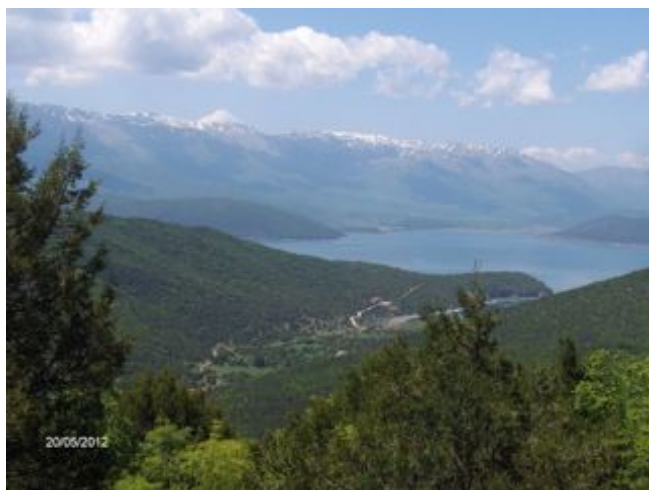
- (i) Ioanna Keisoglou (Greece) for Grazing effects on floristic diversity of a juniper-oak rangeland - I. Keisoglou, N. Pasiou, A.P. Kyriazopoulos, Z.M. Parissi, E.M. Abraham, G. Korakis, Z. Abas
- (ii) Rocco Labadessa (Italy) for Butterflies and grasshoppers: relationships between insect communities and environment in a dry grassland system – R. Labadessa, R. Sorino, G. Corriero
- (iii) Andras Kelemen (Hungary) for Underlying mechanisms that shape biomass- plant species richness relationship in an alkali landscape along a long productivity gradient – A. Kelemen, P. Török, O. Valkó, T. Migléc, B. Deák, K. Tóth, B. Tóthmérész

The evening of the first day (Saturday 19), the Hellenic Range and Pasture Society honoured Emeritus Professor Dr. Arne Strid (University of Lund, Berlin Botanical Garden and Museum) for his life-time efforts to highlight the floristic and natural beauty of the rangelands of Greece, through his monumental published work and talks. A special prize was awarded. Also, it was decided on the recommendation of the HERPAS Administrative Council to nominate Dr. Arne Strid honorary member of the HERPAS with all privileges bestowed to this status.

Dr. Arne Strid was born in 1943 in Kristianstad, Sweden. His doctoral thesis was an experimental study of differentiation and evolution in a group of plants in the Aegean area (Greece). He was employed at the Botany Department of the University of Lund 1964-72, working as a member of a research team led by Prof. H. Runemark studying problems of evolution and speciation with the Aegean archipelago as a model area. He was Associate Professor here 1970-72, and subsequently Senior Lecturer at the University of Zambia (Lusaka, Zambia) 1972-73. This was followed by positions as Professor of Botany at the University of Copenhagen 1973-2001, Honorary Research Associate at the Western Australian Herbarium, Perth, W.A., 1982-83, Visiting Professor at the University of Patras, Greece, 1997-98 (EU Senior Fellowship Grant), Director of the Botanical Garden and Natural History Museum in Göteborg and Professor of Phytogeography at the University of Göteborg from 2001-2008. He has been associated with the Botanical Museum, University of Lund, as Professor Emeritus since 2008, and since 2011 also as Professor Emeritus at the Berlin Botanical Garden and Museum. He is member of



On the lake (A.Strid, O.Valkó, L.Mucina). Photo: A.Kelemen



View over Lake Prespa from Mt. Devas (upper left)
*Solvita Rusina photographing *Iris germanica* on Mt. Devas (center left)*
*Terrace of Prespa National Forest Management Body's *Geum coccineum* growing adjacent to a mountain stream on Mt. Varnous (upper right)*
Information Centre, which was the venue for the EDGM IX (bottom). Photo: S. Venn





Photo: J.Dengler



Campanula lingulata. Photo: A.Kelemen



Photo: J.Dengler



Photo: J.Dengler

the Royal Danish Academy of Sciences and Letters (1976), the Royal Physiographic Society of Lund (1983), the Polish Academy of Sciences (1997), the Swedish Science Research Council (1976-80), and of several botanical associations and editorial boards as well as the International Board of OPTIMA (Organisation for Phyto-Taxonomic Investigation of the Mediterranean Area) since 1974. Dr Strid is author of 12 books and more than 140 scientific publications totalling c. 6,000 pages in the fields of taxonomy, biosystematics, phytogeography and evolution, particularly on the flora of Greece, editor of the Mountain Flora of Greece, published in two volumes in 1986 (852 pp.) and 1991 (999 pp.), and secretary of the steering committee for Flora Hellenica and editor of Volumes 1 (1997) and 2 (2003). Other major publications include Wild Flowers of Mount Olympus (1980), the Flora Hellenica Bibliography (1996, 2nd ed. 2006) and an annotated re-issue of Flora Graeca Sibthorpiana (vols 1-3, 2009-2011). Has started and coordinated a major project for experimental studies of wild relatives of barley and other cereals (c. 1976-1990). He married Dr. agro. Barbro Jende in 1966, scientific co-worker at the Carlsberg Laboratory in Copenhagen 1973-2001.

On Sunday 20th, participants had the opportunity to take part in a short boat cruise to the Greek coast of the western lakeshore of Macro Prespa. Apart from the rocky beauty, the visitors admired the sculpted hermitages which standing hanging on the rocky slopes of Mt. Devas. Rare icons and frescos, all traces of a previous austere religious life of medieval orthodox monks, were seen. Participants also had the opportunity to visit the basilica of Agios Achillios (established by Tsar Samuel in 983 AC), situated in the island of the same name, close to the conference venue.

The religious impressions were coupled with the poetic intervention of Julian Hoffmann*, assisted by his partner Julia (evening of Saturday 19th). Inspired by the calcareous rockiness and humanity of the Mt. Sfika's landscape, Julian gave a marvelous speech; an impressive

cascade of lyrics and photos that guided us back/front to Time(s) in the Karst Country. This unforgettable experience underlined the aesthetic and lyric power that the natural beauty of dry grasslands may offer to humans.

The aesthetic value of the Prespa's living (and non-living) landscape is dominant in the paintings of Vangelis Tamoutselis**. Participants had the opportunity to admire his work, since several paintings (among them Autumn colors symphony, Traditional dancers and 16 more) were exhibited throughout the conference. The popular impulse of the landscape coupled with the unique beauty of Prespa are effectively impressed on Tamoutselis exhibitions.

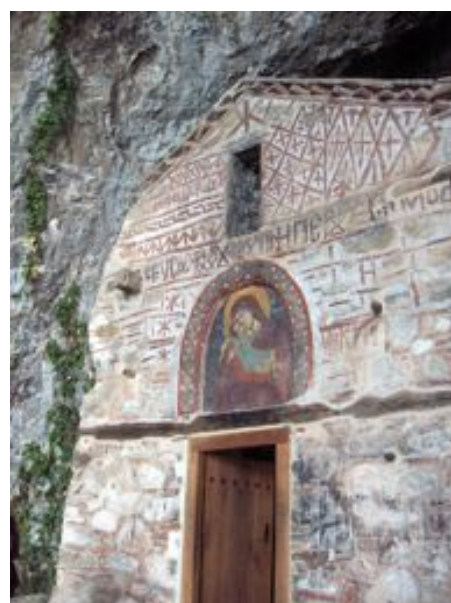
The same day (Sunday 20th) a grassland party was organized in the conference venue by the Municipality of Prespa. Local groups of dancers and musicians entertained the people by offering a musical mix of traditional songs originated from Turkey (a portion of local people draw their origin from the northern coast of Black sea) or from the local area. Several local dishes with pies and meats, and wines and spirits were offered during this unforgettable night.

The Lakes of Prespa host a vast variety of birds that occasionally or permanently nest in the area. Bird watching activities took place throughout the conference. Such activities were facilitated by the telescopes established by the Management Body of the Prespa National Park in the venue. Participants had the opportunity to watch several birds, like pelicans, cormorants, etc.

The organizers would like to express their thanks to all conference participants for their valuable scientific contributions and good mood. We are grateful to Yannis Kazoglou, Georgia Reppa, Haido Daoula, Triantafyllia Gkogkou, Amalia Topalopoulou, and Vasso Papadopoulou (Vassoula's Grocery) for intensive help before and during the meeting. We thank to Arne Strid, Yiannis Tsiripidis and Yannis Kazoglou for help in



A Byzantine church in the village of Agios Germanos. Photo: S.Venn



Chapel in cave, visited during boat-trip from Psarades. Photo: S.Venn

guiding excursions. We are grateful to the heads of Municipality of Prespa, Society for the Protection of Prespa, and Management Body of the Prespa National Park for their support during the conference organization. The meeting was supported by Wiley Publishers and by the Floristisch-soziologische Arbeitsgemeinschaft e. V.

The evening of May 20th a meeting of rangeland experts with local stock-breeders took place in the conference venue. (For more details please visit pp. 10–13 of this Bulletin issue).

Having passed these days, the unprecedented experience of the Prespa EDGM still remains fresh.

Michael Vrafinakis, Karditsa, mvrafinak@teilar.gr

Whole days can pass in the karst country without seeing a soul, the ridges ebbing away in the haze. Secluded at the very edge of Greece, only an hour's walk from Albania, our phones rarely work; their signals, like our view of each other, blotted out by the undulating land. So we are left alone with the stone and arched sky, the mysterious winds and clamor of wings, the unending passage of time.

Julian Hoffmann – Time in the Karst Country

*Julian Hoffman was born in England and grew up in Canada. In 2000, he and his partner moved to the Prespa Lakes where they began an organic small-holding. His writing has recently appeared, or is forthcoming, in the Kyoto Journal, Flyway, Fifth



Astragalus angustifolius. Photo: A. Kelemen

Wednesday Journal, Wild Apples, The MacGuffin, and The Redwood Coast Review, among others. He was the 2nd place winner of the 2010 Carpe Articulum International Fiction Prize. You can catch up with him at

www.julianhoffman.wordpress.com.

**Vangelis Tamoutselis was born in Drosopigi (Florina, Greece) in 1935. He worked on the art of icon painting until 1967, leaving a significant number of icons in churches of Florina. In 1975 he set up his Workshop 10 his personal gallery. He has made 36 solo exhibitions, two of them in the U.S. and has many collective artistic presences in Greece and abroad. For his contribution to art, the Hellenic Ministry of Culture honoured him with lifetime pension.



Convolvulus elegantissimus. Photo: A. Kelemen

EDGG General Assembly 2012

The General Assembly of the EDGG was held on 21st May 2012 at the Information Centre of the Prespa National Forest Management Body, in conjunction with the EDGM IX. The assembly was chaired by Jürgen Dengler and Stephen Venn was secretary. The assembly was attended by 56 people from 19 different countries, thus satisfying the requirement of at least 40 EDGG members from at least 10 different countries. Reports were presented of the activities of the organization during the previous year. The ratified version of the EDGG Bylaws was presented. The stages in the development of the Bylaws were described in Bulletin 15, and the full text of the Bylaws is available from the EDGG web site <http://www.edgg.org/index.htm>. The suggestion to introduce peer review for the Bulletin was discussed. It was decided to keep the possibility open for the future but not make any change as yet, primarily due to lack of resources. Discussion of finances brought up news of the possibility of receiving financial support from the IAVS. Reports were also presented on the activities of the Mediterranean and Conservation sub groups. Special features for the previous and current meeting were discussed. Reports of previous expeditions were presented and news of the Altai Mountains expedition, scheduled for 2013, as well as a proposal for an expedition to the Crimea in 2014. It was confirmed that EDGM X will be held at Zamość, Lublin District, S.E. Poland in 2013, the provisional date being 24–31 May 2013. The assembly voted on and accepted, thus confirming, the proposal to hold the 2014 meeting in Tula, Russia. A proposal has also been made to hold the 2015 EDGM in S.W. Germany. Finally, Michael Vrahnakis presented information on the Proceedings of EDGM IX before the chairperson closed the assembly. For further details on the General Assembly 2012, the minutes are available from the EDGG website.

Stephen Venn, Secretary-General



Irina Safronova and Lao Mucina presenting their ideas. Photo: J. Dengler



Katarzyna Baranska presenting the Polish EDGM 2013. Photo: J. Dengler



Traditional food.. Photo: M. Vrahnakis



The lecture hall (left). Michael Vrahnakis and Apostolos Kyriazopoulos from the organizing committee (right). Photo: J. Dengler



On the way to hermitages. Photo: J. Dengler



Yannis Kazoglou leading the second excursion. Photo: J. Dengler



Relaxing out of the conference room. Photo: J. Dengler



Rainy moments. Photo: J. Dengler



Laco Mucina, Panagiotis Dimopoulos, Ioannis Tsiripidis under the shadow of hermitages. Photo: J. Dengler



Prof. Papanastasis (ex president of HERPAS), the Strid couple and Prof. Koukoura (president of HERPAS). Photo: J. Dengler



Boating on the Macro Prespa lake. Photo: J. Dengler



Te 3rd day excursion to Mt. Sfika. Photo: J. Dengler



Traditional dancing originated from the Black Sea. Photo: J. Dengler



Mt. Sfika. Photo: J. Dengler



Relaxing with a glas of red wine. Photo: J. Dengler



Ji Li and Stephen Venn. Photo: J. Dengler



Ready for the 2nd excursion in Mt Varnous (left). Aslan Unal and Michael Vrahnakis (above). Photo: J. Dengler

Meeting of rangeland experts with local stock-breeders during the 9th EDGM, Prespa, Greece, 19-23 May 2012

On Sunday 20th of May 2012, an organized meeting took place in the Information Centre of the Prespa National Forest Management Body, Greece, between local stock-breeders and specialists dealing with primary sector issues.



Photo: J. Dengler

The meeting took place in the evening of May 20, 2012, at Pyli Information Center, and was attended by more than 45 people (stock-breeders, researchers and representatives of public organizations responsible for primary sector issues).

Prof. Vasilios Papanastasis (Aristotle University of Thessaloniki, Laboratory of Rangeland Ecology) opened the session and focused on a) the importance of stock-breeding (particularly grazing) for the management of pastures and rangelands, which renders stock-breeders to managers of natural ecosystems, b) the issue of the definition of rangelands at the level of the European Commission (important for the new CAP regulations) which should include – apart from grasslands – phrygic pastures, and grazed shrublands and forests (a common traditional practice in Greece, Spain and Portugal), and c) the fact that since the late 90's, there has been no activity in Greece contributing to the proper management of rangelands and pastures (construction of water-troughs, sheds, small houses for shepherds, other infrastructure). On the first point, Prof. Zoi Koukoura, chairwoman of the HERPAS, added that grazing is also a major factor for fire prevention in Mediterranean ecosystems, a role largely neglected in recent decades, but strongly highlighted after the catastrophic wildfires in Greece in 2007-8.

The issues of stock-breeding in the framework of the new CAP for the period 2014-2020 – a topic of ultimate interest for most participants – were presented by Mr.

Guy Beaufoy, representative of the European Forum for Nature Conservation and Pastoralism (EFNCP). He explained that the role of grazing in environmental management, provided that other environmental terms are also kept (e.g. cross-compliance), will be supported by the new subsidy system, and added that the new CAP should be fairer for all stock-breeders in the countries of the European Union. Mr. Beaufoy explained that subsidies will be clearly related to the surface area of pastures owned/used by each stock-breeder and that, on a more general level, will be regulated by both European and national programs. The latter include agro-environmental measures, from which areas like Prespa (protected areas, high nature value areas) could particularly benefit. In general, the new CAP aims at supporting the “greening” of agriculture at all production levels.

Following these two oral presentations, various issues were vividly discussed, among which a) the main differences between the ongoing and the new CAP subsidy payments, b) the licensing of stables and other stock-breeding infrastructure in Greece based on the recent law (4056/2012), and c) the need to get scientific organizations, like the Hellenic Range and Pasture Society (HERPAS), closer to both cooperatives of stock-breeders and the Ministry of Rural Development and Food to improve stock-breeding and nature management practices in Greece.

Yannis Kazoglou, Prespa, Greece, ykazoglou@gmail.com

5th EDGG Research Expedition to Northern Greece, May 2012



Photo: Olga Demina

After the regular 4th EDGG Research Expedition of 2012, which went to Sicily in April (see Guarino et al. 2012), the 9th European Dry Grassland Meeting in Prespa offered the opportunity of a spontaneous, second EDGG Research Expedition in the same year. It was conducted from during seven days in the period of 15–23 May 2012 in the three Northern Greek provinces West Macedonia, Central Macedonia, and East Macedonia and Thrace.

In total, we had 17 participants from six countries, but except J. Dengler nobody else participated during all days. The first four days the participants were Olga Demina (RU), Gian Pietro Giusso del Galdo (IT), and Jürgen Dengler (DE), partly accompanied by Ioannis Tsiripidis or Chrisoula Pirini (University of Thessaloniki, GR). First based near Thessaloniki and already in Prespa during the last night, and equipped with a 4x4 rented car, we explored the dry grassland around Thessaloniki, then east of Thessaloniki, then between Thessaloniki and Prespa, and finally those close to the Megali Prespa Lake. The last three Expeditions days were conducted during the European Dry Grassland Meeting in Prespa. Instead of attending the official three excursions, the Expedition participants set up their plots mostly in the same regions, i.e. at different altitudes of Mt. Devas (20 May), on the

sandy spit between the two Prespa Lakes (22 May), and finally on the karst plateau of Mt. Sfika (23 May). While Olga and Gian Pietro had left then, various conference participants joined on a daywise basis: Iva Apostolova (BG), Idoia Biurrun (ES), Georgious Fotiadis (GR), Itziar García-Mijangos, Ioannis Mountousis (GR), Hristo Pedashenko (BG), Chrisoula Pirini (GR), Desislava Sapotlieva (BG), Yassen Stoyanov (BG), Ioannis Tsiripidis (GR), Aslan Ünal (DE), Kiril Vassilev (BG), Nikolay Velez (BG), and Michael Vrahnakis (GR).

With our sampling, we tried to sample within the given short time, the full variety of dry grasslands between Mt. Pangaion in the East and Mt. Sfika in the west, from the sea shore to 1515 m a.s.l., on all possible substrata: limestone, acidic rocks, serpentines, and coastal and inland sands. We applied the standard sampling of EDGG Research Expeditions (see Dengler et al. 2012) and conducted in total 14 nested biodiversity plots and three additional 10m² plots. The vascular plants not determined in the field are now with Ioannis Tsiripidis and the non-vascular plants with Jürgen Dengler for final determination, while Lukasz Kozub (PL) kindly offered to analyse the soil samples. When determinations, soil analyses and data entry is finished, the participants plan a joint paper on scale-dependent diversity pattern in North

Greek dry grasslands for one of the next EDGG-edited Special Features in *Tuexenia*. Moreover, the data will go into Balkan Dry Grasslands Database (Vassilev et al. 2012) to be used for large-scale classifications, and might be used for a planned comparative study of species-area relationships in Mediterranean open habitats from the Canaries to Israel (including also the EDGG Expedition data from Sicily).

References

Dengler, J., Becker, T., Ruprecht, E., Szabó, A., Becker, U., Beldean, M., Bita-Nicolae, C., Dolnik, C., Goia, I., Peyrat, J., Sutcliffe, L.M.E., Turtureanu, P.D., Ugurlu, E.: (2012) Festuco-Brometea communities of the Transylvanian Plateau (Romania) – a preliminary overview on syntaxonomy, ecology, and biodiversity. – *Tuexenia* 32: 319–359 + 2 tables.

Guarino, R., Becker, T., Dembicz, I., Dolnik, C., Kacki, Z., Kozub, Ł., Rejžek, M., Dengler, J. (2012): Impressions from the 4th EDGG Research Expedition to Sicily: community composition and diversity of Mediterranean grasslands. – *Bulletin of the European Dry Grassland Group* 15: 12–22.

Vassilev, K., Dajič, Z., Cušterevska, R., Bergmeier, E., Apostolova, I. (2012): Balkan Dry Grasslands Database. – In: Dengler, J., Oldeland, J., Jansen, F., Chytrý, M., Ewald, J., Finckh, M., Glöckler, F., Lopez-Gonzalez, G., Peet, R.K., Schaminée, J.H.J. [Eds.]: *Vegetation databases for the 21st century*. – *Biodiversity & Ecology* 4: 330–3302. Biocentre Klein Flottbek and Botanical Garden, Hamburg.

Jürgen Dengler
Olga Demina



Photo: Olga Demina



Photo: Olga Demina



Photo: Olga Demina



Photo: J. Dengler



Photo: Olga Demina

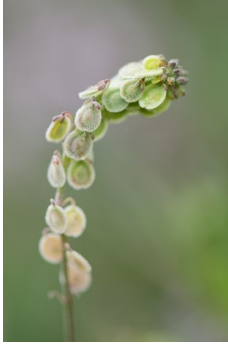


Photo: J. Dengler (the whole page)

Insect surveying during Prespa excursions, May 2012

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Bulletin of the European Grassland Group 16 (2012): 21-23

Abstract: *Carabid beetles, bees, butterflies and a small number of other beetle taxa were sampled during excursions to sites in the Prespa region, Greece, during the Ninth European Dry Grasslands Meeting. Sampling was mainly by hand-searching and netting, and also a small number of pitfall traps. A considerable number of carabid beetles were caught and that material is currently being identified. Records of some bee and butterfly species, as well as the neuropteran owlfly Libelloides lacteus, for the sites Mount Devas, Mount Triklario and Psarades are presented. Further information on the species recorded during these excursions will be presented in the next edition of the bulletin.*

Keywords: bee, butterfly, carabid beetle, endemism, ground beetle, hand search, scarab.

As a working group, the EDGG has constantly strived to not just facilitate the dissemination of research findings on the theme of dry grasslands but to also conduct data collection from representative grassland habitats in poorly studied regions. Whilst many such grasslands contain high levels of species richness and endemism, it is generally possible to apply a systematic sampling strategy over a short sampling period for vascular plants and produce valuable data on their species richness and coverages. For other taxa, this is considerably more challenging. Whilst there are certainly a number of entomologists in Europe who do possess the necessary expertise and species recognition skills to conduct multitaxa surveys and produce species lists for a broad range of taxa, I cannot include myself amongst them. Carabid beetles (*Coleoptera*, *Carabidae*), also known as ground beetles, the arthropod taxon with which I am personally most familiar, include many sub-genera with species pairs that are difficult to distinguish even with the use of a microscope, let alone in the field. Amongst the smaller carabid beetles, a number of genera, such as *Amara* spp and *Bembidion* spp, contain large numbers of extremely similar species, and even amongst the largest of ground beetles, *Carabus* spp, there are numerous sub species and regional variation within the same true species. The normal procedure for surveying this taxon is to use an appropriately large number of pitfall traps for a full season (Spring to Autumn) to ensure sampling of species that are active at different times of the year. However, as a trapping method pitfalls are not perfect and certainly trap some taxa more effectively than others. It has been suggested, for instance, that some small species can withdraw from the edge of the pitfall trap and also the different behaviour of different species influences their susceptibility to pitfall trapping. The traps are emptied every two to four weeks, the trapped arthropods sorted into taxonomic groups, and only then begins the challenging task of identification using microscopes and regional identification keys, which is, to say the least, a time-consuming process. To achieve a reasonably comprehensive list of the species present requires additional sampling methods, such as hand

searching, to ensure the inclusion of species that are less susceptible to pitfall trapping.

There has been discussion for some time about the possibility of collecting entomological data during the EDGG excursions and the Prespa meeting, during May 2012, saw to my knowledge the first foray in this direction, with the permission of the Prespa National Forest Management Body. Anselm Kratochwil from the University of Osnabrück, Germany, used hand-netting to sample the butterfly and bee fauna of the sites visited during the three excursions, and the author used a small number of pitfall traps, maintained for five days (18.5-23.5.2012) and hand searching at the excursion sites, as well as an additional study visit to Mt. Devas. The catch from the pitfall traps was relatively scant, due to their small number and the short duration of trapping. The main part of the carabid samples were thus collected by hand sampling. The effort at the different sites was not standardized and the catches of beetles from the different sites were also influenced by the availability of searchable microhabitats and habitat features, so the catches cannot be considered comparable but rather indicative of a part of the carabid fauna of each site. In addition to carabid beetles, a small number of individuals of other coleopteran and insect taxa were also sampled.

The main advantage of pitfall trapping, is that it can be applied systematically, with standardization of sampling effort to allow comparison of samples from different sites and empirical analysis of such samples. Hand-sampling can also be standardized, for instance, by standardizing the time spent searching in different sites and using a protocol of dividing the time spent at a site amongst the microhabitats present. The majority of carabid species are nocturnally active and spend the daytime under stones and pieces of wood, within leaf litter, in holes in the ground and amongst the roots of plants. This is reasonably controllable at sites with similarity of vegetation and physical structure however, the variety of grassland sites visited at Prespa had considerable differences. Mount Triklario, the site of our final excursion, yielded a rather poor catch of beetles from the

hand-searching until we encountered a 1.5 l lemonade bottle which some previous visitor to the site had apparently left laying around with its lid open. The bottle now contained several dozens of beetles, including scarab beetles and carabids, which thereby provided me with a very respectable sample for that site.

Another remarkable event during my expeditions arose as a by product of the official excursion to Mt. Varnous, during which I shared a lift with Jan Jordan and Julian Hoffman. On hearing of my entomological interest, they told me of an intriguing parasitic plant that was very rare but which should be flowering at that time and was almost invariably attended by an insect which could have been either a bee or a beetle. It was known to be hairy, though then again, most pollinating insects are! We agreed that it would be interesting to investigate the matter further if there would be any opportunity during the meeting and continued our drive up the rainy Mount Varnous. A short time later, we were informed that the expedition was being aborted, as several participants had gotten soaked through, so we returned to the village of Ag. Germanos and decided to reconvene in the afternoon. At that point we decided to use the extra couple of hours to go and investigate the plant and insect mystery at a site on Mt. Devas. After arriving at the site, it didn't take us long to find the plant, *Phelypaea* (*Diphelypaea*) *coccinea* Poir., a parasitic member of the *Orobanchaceae*, distributed in SE-Europe, only living on *Centaurea* sp, and collect several specimens of what actually was a

beetle from the family Scarabaeoidea, from the flowers. The beetle has not yet been identified to species, and when it is, then that might provide its own story for a future edition of the bulletin.

As yet I am unable to give concrete results for the surveys of carabid beetles carried out during the Prespa excursions during May 2012 beyond the facts that there are a considerable number of them, of which approximately half are now pinned and awaiting identification. The Greek carabid fauna is known to be rich with 962 recorded species in 138 genera, of which an impressive 219 species (23%) are endemic to Greece. A number of genera are currently under revision, so the number of species, and possibly that of endemics too, could well increase in the near future. I anticipate that most of the material I collected in May will be identified this Autumn and that I will be able to provide at least a provisional species list by the time of the next bulletin. Fortunately Anselm Kratochwil has made good progress with his specimens and provided the following records.

Some insect species detected during the excursions (Anselm Kratochwil)

Devas Mountain Area (20.05.2012)

- The wild-bee species *Megachile parietina* (Geoffroy in Fourcroy, 1758) ("Mason-bee of the Walls") was observed collecting pollen on *Helianthemum oelandicum*



Polyommatus s. semiargus. Photo: Angelika Schwabe, Prespes, 23.05.2012

(L.) DC. This univoltine, polylectic Mediterranean species mainly feeds on pollen resources from *Lamiaceae* and *Fabaceae*. The nests are built in hollows in stones. After selecting a pebble, the female bee comes back with a little ball of mortar in the mandibles and arranges it in a circular pad on the surface of the stone. Flight period: from April to June.

Lepidoptera:

- *Anthocharis g. gruneri* Herrich-Schaeffer, 1851, *Pieridae*, male and female
- *Callophrys r. rubi* (Linnaeus, 1758), *Lycaenidae*, female
- *Issoria lathonia* (Linnaeus, 1758), *Nymphalidae*, male
- *Leptidea duponcheli lorkovici* Pfeiffer, [1932], *Pieridae*, male

Triklario Mountain Area (23.05.2012)

- Longhorn bee *Eucera pollinosa* Smith, 1854 (male), nectar foraging on *Geranium macrostylum* Boiss. This univoltine, polylectic Mediterranean species flies from May to July.
- The owlfly *Libelloides lacteus* (Brullé, 1832) is a member of the neuropteran (family *Ascalaphidae*). Owlflies are diurnal or crepuscular predators of other flying insects. This species has an Anatolian-Pontomediterranean distribution (Southeast France, Italy, Balkans).
- *Coenonympha pamphilus* (Linnaeus, 1758), *Satyridae*, male.

Surroundings of Psarades (19.-23.05.2012)

- *Osmia apicata* Smith, 1853; male observed in nectar foraging on *Carduus tenuiflorus* Curt. in Psarades (20.05.2012). The females of this East Mediterranean bee species are oligolectic (pollen collecting on *Onosma*, *Boraginaceae*). In the surroundings *Onosma heterophylla* Griseb. was growing.

Lepidoptera:

- *Coenonympha pamphilus* (Linnaeus, 1758), *Satyridae*, 3 males (20.-23.05.2012)
- *Colias alfacariensis* Ribbe, 1905, *Pieridae*, male (23.05.2012)
- *Cupido minimus* (Fuessly, 1775), *Lycaenidae*, four males (19.05.2012)
- *Glaucopsyche alexis* (Poda, 1761), *Lycaenidae*, male (19.05.2012)
- *Polyommatus i. icarus* (Rottemburg, 1775), *Lycaenidae*, 2 males (20.05.2012, 23.05.2012)
- *Polyommatus s. semiargus* (Rottemburg, 1775), *Lycaenidae*, 11 males, one female (23.05.2012). This species forms congregations, rich in individuals, on humid spots (primarily males) important for gathering mineral salts and electrolytes (see photo).
- *Scolitantides orion lariana* (Fruhstorfer, 1910), *Lycaenidae*, male (22.05.2012).



Libelloides lacteus. Photo: Andras Kelemen



Flowers of *Phelypaea coccinea* with an as yet unidentified chafer beetle. Photo: Stephen Venn

6th EDGG Research Expedition to the Altai Mts., Russia July 2013



The EDGG Research Expeditions have a tradition since 2009, when the first such expedition was conducted in Transylvania, Romania (Dengler et al. 2009, 2012a). The 2nd expedition 2010 went to Central Podolia, Ukraine (see Bulletin 8: 15–16), the 3rd 2011 to the Western Bulgarian Mts. (see Bulletin 12: 10–14). In 2012, there were two such expeditions, one to Sicily, Italy (Guarino et al. 2012), and one to Northern Greece (see report in this Bulletin: 18–20). The aims of these international expeditions are to sample high-quality data on species composition and diversity of dry grasslands and related communities in understudied regions of the Palaearctic, to use these data for joint publications in international journals, and to exchange knowledge (species determination, field sampling, analytical methods) among participants with different background.

The basic idea to use the data from the EDGG Research Expeditions for high-rank publications is on a good way. A first comprehensive paper in a Web of Science journal from the first expedition has just been published (Dengler et al. 2012a), and a second will be submitted shortly (Turtureanu et al. in prep.). Some of the plots sampled during the EDGG Research Expedition in Transylvania carry the world records of vascular plant species richness, published very prominently by Wilson et al. (2012). Many more ISI publications from the expeditions are in preparation, and in one month hopefully three organisers

from previous expeditions hopefully will come to Germany with an EDGG Fellowship to work on three different ISI papers based on the data from the respective expedition.

After having carried out the EDGG Research Expeditions in various places of East, Southeast and South Europe, in 2013 we will have the first expedition on another continent, namely in Central Asia. We invite you to the

6th EDGG Research Expedition to the Altai Mts.

Date: 21 July – 1 August 2013

Place: Republic of Khakasia in south-central Siberia, Russian Federation

Coordinators: Nikolai Ermakov (brunnera@mail.ru) and **Jürgen Dengler** (juergen.dengler@uni-hamburg.de)

Maximum number of participants: 14 (including the coordinators, i.e. 12 free places)

Approximate costs: 350 € for expedition*; 450 € for flight Moscow – Abakan and back (in case of early booking; later in the year it will rise to 750 €); each participant has to cover the costs for the flight to Moscow and the visa himself/herself (* might be reduced by grants)

Deadline for registration: 31 December 2012

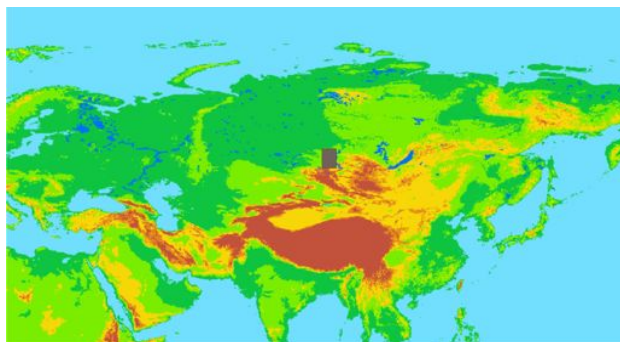
The study area

The Altai Mts. are a big mountain range in East-Central Asia, where Russia, China, Mongolia and Kazakhstan come together, and where the rivers Irtysh and Ob have their sources. The highest summit is Belukha (4,506 m a.s.l.). Depending on altitude and location, one finds steppe, forest-steppe, forest, and alpine vegetation.

The expedition will be carried out in the north-eastern, lower part of the Russian Altai (in a broad sense), in the Republic of Khakasia (61,900 km²; 530,000 inhabitants), and start from its capital Abakan (54° N, 91° E; 170,000 inhabitants). The preliminary programme is as follows:

1 – The main part of the expedition with extensive field sampling (7 days) will be spent in steppe and meadow steppe vegetation in the area of the Itkul Lake belonging to the Khakasian Nature Reserve. Here types of the Euro-Siberian steppes (*Festuco-Brometea*) and Central Asian steppes (*Cleistogenetea squarrosae*) occur together.

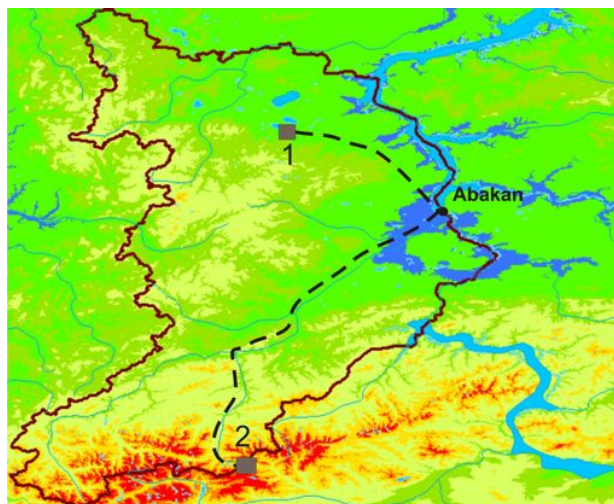
2 – The final three days of the expedition, we plan to travel to the high mountains of the Western Sayan ridge. Here we will have the opportunity to see true Siberian primeval boreal forests and alpine vegetation. The latter is comprised of the classes *Loiseleurio-Vaccinietea*, *Mulgedio-Aconitetea*, *Salicetea herbaceae*, *Juncetea trifidi*, and *Carici rupestris-Kobresietea*. We plan to sample some plots in the alpine grasslands of the last two classes.



Climate, soils and vegetation

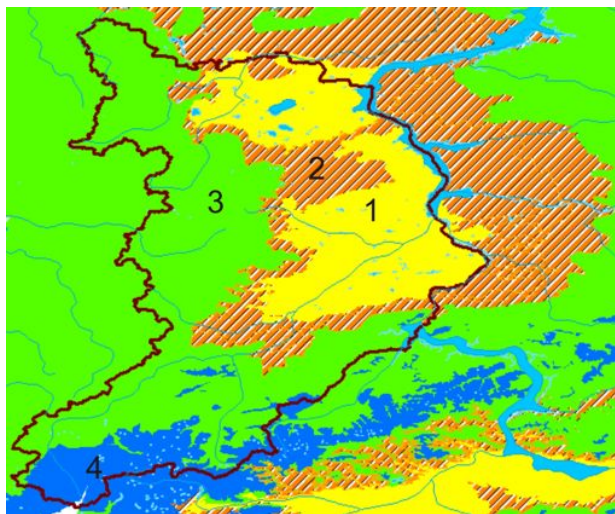
The first place of the expedition (7 days) is located in northern part of the Minusinskaya Basin with flat or gently undulating landforms on Quaternary deposits at altitudes of 300–600 m a.s.l. The climate of the area is strongly continental and semi-arid because it is located in the rain shadow. Average July temperature is +19 °C and January –21 °C, average annual precipitation is 350 mm, of which 88–95% fall from late July to September. Winter snow cover is shallow and irregular in this region.

The second area (3 days) will be located in alpine and subalpine zones of the Western Sayan Mountains at altitudes 1700–2300 m a.s.l. The alpine zone is characterized by a rugged topography with steep slopes on metamorphic rocks, mainly base-rich chloride slates, with igneous rocks and limestones occupying small areas. Ancient table-lands are typical in alpine zone as well. The northern front ranges of the Western Sayan, which intercept humid northwestern air masses, have a more humid climate. January temperature ranges from –11 to –17 °C, July temperature from +16 to +19 °C and annual precipitation from 500 to 900 mm.

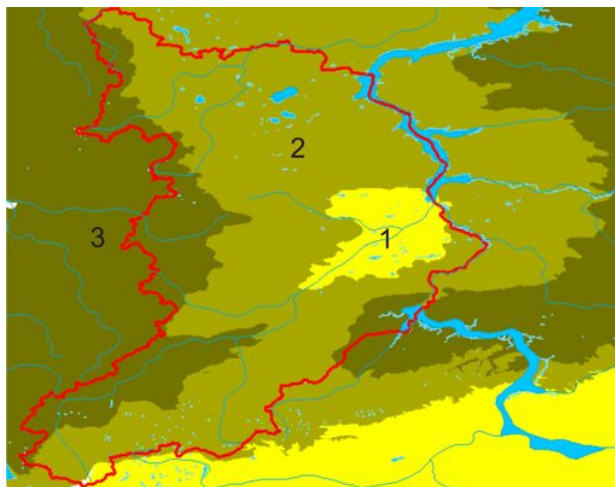


Positions of two key areas for the grassland vegetation study
1 – The Itkul Lake. Steppe belt with predominance of meadow steppes of European-Siberian (*Festuco-Brometea* class) and Central Asian (*Cleistogenetea squarrosae*) types.
2 – The Western Sayan ridge. High mountain belt with participation of cryophytic dry meadows of the *Carici rupestris-Kobresietea*.

Dashed line – The route of expedition.



Khakasia vegetation belts: 1 steppe belt, 2 forest-steppe belt, 3 forest belt, 4 alpine belt.



Khakasia bioclimate zones: 1 semi-arid ultracontinental, 2 moderately arid continental, 3 humid cyclonic.



Vegetation includes steppe on the bottoms of the Minusinskaya Basin, forest-steppe and forest at medium altitudes, and alpine tundra above the timberline. Forests are abundant in the wetter northern part of the Western Sayan. In the forest-steppe landscapes, steppe regularly occurs on south-facing slopes, and forest occurs on north-facing slopes. Cold and dry lowland steppes are characterized by *Artemisia frigida* Willd., *Caragana pygmaea* (L.) DC. and *Stipa krylovii* Roshev., and mountain steppes in the forest-steppe zone are often dominated by *Helictotrichon desertorum* (Less.) Nevski, *Carex pediformis* C.A. Mey. and *Spiraea media* Schmidt. Some of the mountain steppes, occurring on mesic soils, form dense tall-grass species-rich stands, so-called meadow steppes. Alpine tundra is mostly dominated by dwarf shrubs (*Betula rotundifolia* Spach, *Vaccinium myrtillus* L. and *V. vitis-idaea* L.) on ridges and hillsides, and tall forbs on the valley bottoms. Alpine dry grasslands (*Kobresia myosuroides* (Vill.) Fiori and *Dryas oxyodonta* Juz.) occur on tops of mountains and flat summits. The forests of the study area can be divided into taiga and hemiboreal forests. Taiga occurs on moist to mesic soils and is mostly dominated by *Abies sibirica* Ledeb., *Picea obovata* Ledeb. and *Pinus sibirica* Du Tour. It includes *Vaccinium myrtillus*, *V. vitis-idaea* and *Bergenia crassifolia* (L.) Fritsch in the herb layer and a well-developed moss layer. Hemiboreal forests, also called sub-taiga, occupy mesic to dry soils. They contain many shade-intolerant herbs, some of which occur both in steppe and open forests. Hemiboreal forests in the driest and coolest areas are dominated by *Larix sibirica* Ledeb and are termed ultracontinental forests, while those in the wetter and warmer areas are dominated by *Pinus sylvestris* L. or *Betula pendula* Roth, the latter often occurring in post-fire successional stands. Description and analyses of the vegetation of Khakasia, particularly the steppe grasslands, can be found in Ermakov et al. (2006, 2012), Chytrý et al. (2007), and Ermakov (2012; pdf's).

Organisation of the expedition

The expedition will start in Abakan on 22 July (early morning) and end there again on 1 August. We will have one small bus and an additional car for transporting equipment. There will be two drivers, a cooker and an assistant to the cooker serving the expedition. In both parts of the expedition, our field work will be concentrated on key areas with predominance of natural

vegetation. All our life facilities will be restricted to tent camps. However electricity, small local shops, and sauna will be available in the first area, while the second area is pure wilderness. We will be able to make short whole-day trips by car round camps according to our scientific aims.

For most participants, the flight connections of the S7 company from Moscow to Abakan (approx. 5 hrs duration) will be the most convenient way to get to Abakan and back as it starts from the Domodedovo Airport (DME) in Moscow where the majority of international flights is landing and has a convenient flight table. There is one flight leaving Moscow on Sunday, 21 July, 22:00, and arriving in Abakan on Monday, 22 July, 6:35 local time (+ 4 hr of Moscow time). For return, the convenient flight would leave Abakan on Thursday, 1 August, 7:40 local time, and arrive in Moscow at 8:55 Moscow time. The cost for a return air ticket Moscow – Abakan with the S7 company vary from approx. 450 € for very early booking to 750 € for late booking. Nikolai Ermakov will arrange the booking for foreign participants upon request.

Note that participants from most countries (except Ukraine) need visa for Russia. For that purpose, Nikolai Ermakov will send the approved participants formal invitations in January 2013. However, for participants from some countries, such as Germany, it might be more convenient to come with a normal tourist visa.



Costs and financial support

The costs given above (350 €) include everything starting and ending in Abakan, accommodation, travelling, food and salary of the staff. The value is indicative and might vary slightly if we have fewer than 14 participants or if prices (for petrol etc.) increase. This calculation is based estimated overall cost of the expedition (excluding the flights to and from Abakan) of about 4,500 €. The EDGG Executive Committee has decided to apply for a 3,000-€ grant of our mother organisation IAVS, and we are optimistic to get it. If we succeed, this grant would reduce the individual participation fees to approx. 120 €. Note however, that this reduction will only be available for IAVS members, but IAVS membership is cheap (20 € for regular membership, 10 € for student membership, free for members of low- to medium-income countries). Highly motivated young scientists from low-income

countries can additionally apply for financial support by the IAVS Global Sponsorship Committee (GSC) to cover the full expedition fees and possibly also the flights (contact: J. Dengler).

If someone of you has ideas where to apply for additional money, they are highly welcome! In that case please contact J. Dengler.

Aim of the expedition

The core aims of the expeditions are:

- Sampling high-quality data on species composition and diversity of dry grasslands and related communities in understudied regions of the Palaearctic.
- Using these data for joint publications in international journals and making them available in a public vegetation-plot database (Dengler et al. 2012b)
- Knowledge exchange and capacity building among scientists from various countries regarding species determination, field techniques, statistical techniques, and scientific writing.

The sampling design will be identical to that of the five preceding EDGG Research Expeditions (and several other studies) to allow large-scale comparisons. Its core points have been proposed by Dengler (2009). We use on the one hand intensive nested-plot sampling covering plot sizes of 0.0001, 0.001, 0.01, 0.1, 1, 10 and 100 m² and on the other hand supplementary 10-m² relevés (for details, see Dengler et al. 2012a). In both cases, all terricolous vascular plants, bryophytes and lichens are recorded, and for the 10-m² (sub-) plots also percentage cover of species and environmental data (slope, aspect, microrelief, soil depth + a mixed soil sample to be analysed in the lab).

The data are used for joint publications of the participants on vegetation-environment relationships, diversity-environment relationships, species-area relationships, and consistent large-scale classifications. All participants are invited to be involved in the analyses and to contribute as co-authors to these publications. Motivated young participants can also come for short research stays to a group of one of the methodologically experienced participants from Central Europe to learn statistical techniques and the art of scientific writing.

ATTENTION: This expedition is work-intensive field research, NOT a tourist-like excursion!

How to register

If you are interested in participation you are invited to contact Nikolai Ermakov (brunnera@mail.ru) and Jürgen Dengler (juergen.dengler@uni-hamburg.de) to ask for further details. Please always send all your communication regarding the expedition to both organisers!

Please send your formal registration (binding) to the two organisers not later than 31 December 2012. We anticipate that there might be more persons interested in participation than places are available. In this situation, we will elect the participants based on their motivation and qualification. Therefore, we ask you to accompany your registration with a short letter of motivation where

you explain what you expect from the expedition, how it might be beneficial for your scientific work and how you intend to contribute to the success of the expedition and later to the utilisation of the data. Preference will be given to participants who

- who already participated in previous EDGG Research Expeditions and the related publications,
- who have good species knowledge of vascular plants, bryophytes, and lichens,
- who have experiences in high-quality field sampling, analytical methods (statistics, soil analysis), and writing papers for international journals, and/or
- who are willing to spend time after the expedition for determining species, analysing soils, entering data,...

Please specify in your application whether you are an IAVS member in 2013 and whether you would require additional financial support by the IAVS-GSC in order to be able to participate. Please also indicate in your application if you have special food requirements because, for example, you are vegetarian, Muslim, or an allergic person.



References

PDF's of all articles are available upon request from Nikolai Ermakov and Jürgen Dengler, respectively.

- Chytrý, M., Danihelka, J., Ermakov, N., Hájek, M., Hájková, P., Kočí, M., Kubešova, S., Lustyk, P., Otýpková, Z., Popov, D., Roliček, J., Řezníčková, M., Šmrada, P., Valachovič, M. (2007): Plant species richness in continental southern Siberia: effects of pH and climate in the context of the species pool hypothesis. – *Global Ecology and Biogeography* 16: 668–678.
- Dengler, J. (2009): A flexible, multi-scale approach for standardised recording of plant species richness patterns. – *Ecological Indicators* 9: 1169–1178.
- Dengler, J., Becker, T., Ruprecht, E., Szabó, A., Becker, U., Beldean, M., Bită-Nicolae, C., Dolnik, C., Goia, I., Peyrat, J., Sutcliffe, L.M.E., Turtureanu, P.D., Uğurlu, E. (2012a) Festuco-Brometea communities of the Transylvanian Plateau (Romania) – a preliminary overview on syntaxonomy, ecology, and biodiversity. – *Tuexenia* 32: 319–359 + 2 tables.
- Dengler, J., Ruprecht, E., Szabó, A., Turtureanu, D., Beldean, M., Uğurlu, E., Pedashenko, H., Dolnik, C., Jones, A. (2009): EDGG cooperation on syntaxonomy and biodiversity of Festuco-Brometea communities in Transylvania (Romania): report and preliminary results. – *Bulletin of the European Dry Grassland Group* 4: 13–19.
- Dengler, J., Todorova, S., Becker, T., Boch, S., Chytrý, M., Diekmann, M., Dolnik, C., Dupré, C., Giusso del Galdo, G.P., Guarino, R., Jeschke, M., Kiehl, K., Kuzemko, A., Löbel, S., Otýpková, Z., Pedashenko, H., Peet, R.K., Ruprecht, E., Szabó, A., Tsiropidis, I., Vassilev, K. (2012b): Database Species-Area Relationships in Palaearctic Grasslands. – In: Dengler, J., Oldeland, J., Jansen, F., Chytrý, M., Ewald, J., Finckh, M., Glöckler, F., Lopez-Gonzalez, G., Peet, R.K., Schaminée, J.H.J. [Eds.]: *Vegetation databases for the 21st century*. – *Biodiversity & Ecology* 4: 321–322. Biocentre Klein Flottbek and Botanical Garden, Hamburg.
- Ermakov, N.B. (2012): Higher syntaxa of typical steppes and desert-steppes of Southern Siberia and Mongolia [in Russian]. – *Vestnik of Novosibirsk State University, Ser. Biology and Clinic Medicine* 10 (2): 5–15.
- Ermakov, N., Chytrý, M., Valachovič, M. (2006): Vegetation of rock outcrops and screes in the forest-steppe and steppe belts of the Altai and Western Sayan Mts., southern Siberia. – *Phytocoenologia* 36: 509–545.
- Ermakov, N.B., Larionov, A.V., Polyakova, M.A. (2012): Syntaxa of meadow steppes of the *Helictotrichetalia schelliani* from the Altai and Khakasia [in Russian]. – *Vestnik of Novosibirsk State University, Ser. Biology and Clinic Medicine* 10(2): 16–23.
- Guarino, R., Becker, T., Dembicz, I., Dolnik, C., Kacki, Z., Kozub, Ł., Rejžek, M., Dengler, J. (2012): Impressions from the 4th EDGG Research Expedition to Sicily: community composition and diversity of Mediterranean grasslands. – *Bulletin of the European Dry Grassland Group* 15: 12–22.
- Wilson, J.B., Peet, R.K., Dengler, J., Pärtel, M. (2012): Plant species richness: the world records. – *Journal of Vegetation Science* 23: 796–802.



Artemisia frigida – a steppe dominant. Photo: N. Ermakov





Steppes of the Cleistogenetea squarrosae with Artemisia frigida, A. santolinifolia, Poa botryoides, Potentilla acaulis. Photo: N. Ermakov



Steppes of the Central Asian steppes of the Cleistogenetea squarrosae Goniolimon speciosum, Potentilla acaulis.. Photo: N. Ermakov



Stipa krylovii dominated steppes. Photo: N. Ermakov



Stipa pennata in the Festuco-Brometea steppes of northern Khakasia. Photo: N. Ermakov



Philomis tuberosa in the Festuco-Brometea meadow- steppes of the Altai. Photo: N. Ermakov



Hedysarum gmelinii dominated meadow-steppes. Photo: N. Ermakov

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.

Vegetation Databases for the 21st Century

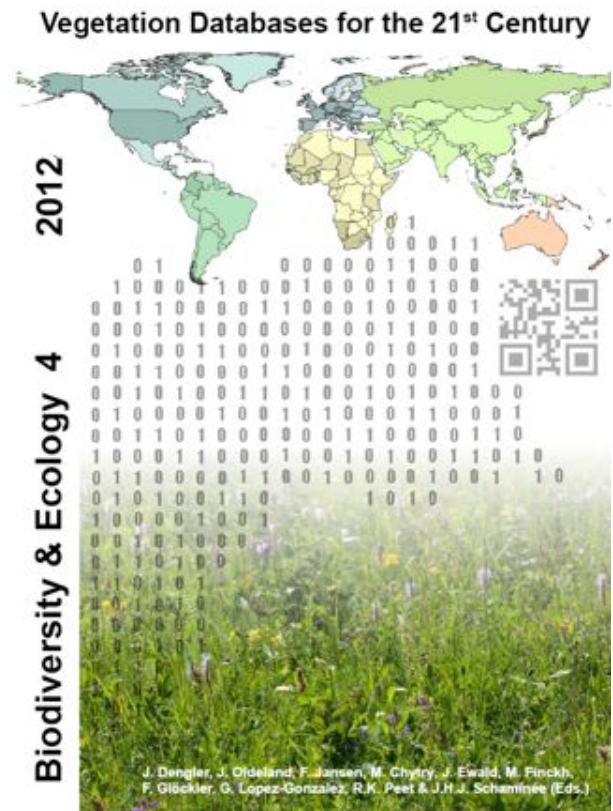
On 10 September, the Special Volume of Biodiversity & Ecology on Vegetation databases was published in print, and two weeks later open access online:

Dengler, J., Oldeland, J., Jansen, F., Chytrý, M., Ewald, J., Finckh, M., Glöckler, F., Lopez-Gonzalez, G., Peet, R.K., Schaminée, J.H.J. (2012) [Eds.]: Vegetation databases for the 21st century. – Biodiversity & Ecology 4: 447 pp. Biocentre Klein Flottbek and Botanical Garden, Hamburg.

The volume has A4 size (30 cm × 21 cm) and is printed in full colour throughout. It contains standardised descriptions of nearly all vegetation-plot databases listed in the Global Index of Vegetation-Plot Databases (GIVD; www.givd.info) in form of Long and Short Database Reports, a new meta-analysis of the data contained in GIVD, and several research papers. Among the authors are many EDGG members (see section Recent publications of our members in this Bulletin).

The printed book can be ordered by sending an e-mail to orders.b-e@biodiversity-plants.de for only 20 € per copy, including postage. The online content is available at: http://www.biodiversity-plants.de/biodivers_ecol/biodivers_ecol.php.

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



Six of the ten guest editors present the Special Volume at the conference of the Ecological Society of Central Europe (GfÖ) in Lüneburg on 12 September 2012, from left to right: Jörg Ewald, Florian Jansen, Gabriela Lopez-Gonzalez, Jürgen Dengler, Falko Glöckler, and Jens Oldeland.

Recent publications of our members

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

- Becker, T., Schmiede, C., Bergmeier, E., Dengler, J., Nowak, B. (2012): Nutrient-poor grasslands on siliceous soil in the lower Aar valley (Middle Hesse, Germany) – neglected vegetation types in the intersection range of four classes. *Tuexenia* 32: 281–318 + 1 table.
- Blasi C., Facioni L., Burrascano S., Del Vico E., Tilia A. & Rosati L. (2012): Submediterranean dry grasslands along the Tyrrhenian sector of central Italy: Synecology, syndynamics and syntaxonomy. *Plant Biosystems*, DOI:10.1080/11263504.2012.656729.
- Blasi C., Tilia A., Rosati L., Del Vico E., Copiz R., Ciaschetti G. & Burrascano S. (2012): Geographical and ecological differentiation in Italian mesophilous pastures referred to the alliance Cynosurion cristati Tx. 1947. *Phytocoenologia*, 41 (4), 217 – 229.
- Dengler, J. (2012): Skalenabhängigkeit von Biodiversität – von der Theorie zur Anwendung (Scale dependency of biodiversity - from theory to application). Forschungs-bericht zur kumulativen Habilitation. – 145 pp., Fachbereich Biologie der Universität Hamburg, Hamburg. URL: <http://www.biodiversity-plants.de/downloads/JD0157.pdf>.
- Dengler, J., Becker, T., Ruprecht, E., Szabó, A., Becker, U., Beldean, M., Bita-Nicolae, C., Dolnik, C., Goia, I., Peyrat, J., Sutcliffe, L.M.E., Turtureanu, P.D., Uğurlu, E.: (2012) Festuco-Brometea communities of the Transylvanian Plateau (Romania) – a preliminary overview on syntaxonomy, ecology, and biodiversity. *Tuexenia* 32: 319–359 + 2 tables.
- 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.
- Glöckler, F., Dengler, J., Jansen, F., Oldeland, J., Peet, R.K. (2012): Guide to GIVD's Fact Sheets. In: Dengler, J., Oldeland, J., Jansen, F., Chytrý, M., Ewald, J., Finckh, M., Glöckler, F., Lopez-Gonzalez, G., Peet, R.K., Schaminée, J.H.J. [Eds.]: *Vegetation databases for the 21st century*. *Biodiversity & Ecology* 4: 83–88. Biocentre Klein Flottbek and Botanical Garden, Hamburg.
- Jeschke, M. (2012): Cryptogams in calcareous grassland restoration: perspectives for artificial vs. natural colonization. – *Tuexenia* 32: 269–279.
- Ketner-Oostra, R., Aptroot, A., Jungerius, P.D., Sýkora, K.V. (2012): Vegetation succession and habitat restoration in Dutch lichen-rich inland drift sands. – *Tuexenia* 32: 245–268.
- Oppermann, R., Beaufoy, G., Jones, G. (2012) [Eds.]: *High Nature Value farming in Europe: 35 European countries – experiences and perspectives*. – 544 pp., verlag regionalkultur, Ubstadt-Weiher. ISBN 978-3-89735-657-3.
- Piowarczyk R. (2012): *Orobancha alba* subsp. *alba* and subsp. *major* (Orobanchaceae) in Poland: current distribution, taxonomy, plant communities, hosts, and seed micromorphology. *Biodiversity: Research and Conservation* 26: 23-38.
- Piowarczyk R. (2012): *Orobancha bohémica* Čelak. (Orobanchaceae) at the eastern limit of its geographical range: new data on its distribution in Poland. *Biodiversity: Research and Conservation* 26: 53-60.
- Piowarczyk R. (2012): *Orobancha purpurea* (Orobanchaceae) in Poland: current distribution, taxonomy, plant communities, and preferred hosts. *Biodiversity: Research and Conservation* 26: 73-81.
- Piowarczyk R. (2012): Revised distribution and plant communities of *Orobancha alsatica* and notes on the Orobanchaceae series *Alsaticae* in Poland. 39-52.
- Piowarczyk R. (2012): The genus *Orobancha* L. (Orobanchaceae) in the Malopolska Upland (S Poland): distribution, habitat, host preferences, and taxonomic problems. *Biodiversity: Research and Conservation* 26: 3-22.
- Piowarczyk R. (2012): Revised distribution and phytosociological data of *Orobancha coerulescens* Stephan in Willd. (Orobanchaceae): Poland in relation to Central Europe. *Biodiversity: Research and Conservation* 26: 61-72.
- Power EF, Kelly DL, Stout JC (2012) Organic Farming and Landscape Structure: Effects on Insect-Pollinated Plant Diversity in Intensively Managed Grasslands. *PLoS ONE* 7 (5):e38073. doi:10.1371/journal.pone.0038073 (free available online)
- Power EF, Stout JC (2011) Organic dairy farming: impacts on insect-flower interaction networks and pollination. *Journal of Applied Ecology* 48 (3): 561-569. doi:10.1111/j.1365-2664.2010.01949.x
- Török P. (2012): Recovery of grassland biodiversity using spontaneous succession and technical

reclamation. [Only in Hungarian available: Gyepék biodiverzitásának helyreállítása spontán szukcesszió és aktív gyepesítési beavatkozások segítségével]. University of Debrecen, Faculty of Science and Technology, 177 pp.

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

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Aegilops cf. geniculata. Photo: A. Kelemen

Vegetation databases (all pdf's available from http://www.biodiversity-plants.de/biodivers_ecol/biodivers_ecol.php)

Ácić, S., Petrović, M., Šilc, U., Stevanović, Z.D. (2012): Vegetation Database Grassland Vegetation of Serbia. – *Biodiversity & Ecology* 4: 418–418.

Apostolova, I., Sopotlieva, D., Pedashenko, H., Velev, N., Vasilev, K. (2012): Bulgarian Vegetation Database: historic background, current status and future prospects. – *Biodiversity & Ecology* 4: 141–148.

Becker, T. (2012): Dry Grassland Central Germany Database. – *Biodiversity & Ecology* 4: 374–374.

Becker, T. (2012): VIOLETEA – heavy metal grasslands. – *Biodiversity & Ecology* 4: 325–325.

Bitá-Nicolae, C. (2012): Vegetation Database of Dry Grasslands in the Southeast Romania. – *Biodiversity & Ecology* 4: 412–412.

Biurrun, I., García-Mijangos, I., Campos, J.A., Herrera, M., Loidi, J. (2012): Vegetation-Plot Database of the University of the Basque Country (BIOVEG). – *Biodiversity & Ecology* 4: 328–328.

Chytrý, M., Michalcová, D. (2012): Czech National Phytosociological Database. – *Biodiversity & Ecology* 4: 345–345.

Csiky, J., Botta-Dukát, Z., Horváth, F., Lájér, K. (2012): CoenoDat Hungarian Phytosociological Database. – *Biodiversity & Ecology* 4: 394–394.

Dengler, J., Berendsohn, W.G., Bergmeier, E., Chytrý, M., Danihelka, J., Jansen, F., Kusber, W.-H., Landucci, F., Müller, A., Panfili, E., Schaminée, J.H.J., Venanzoni, R., von Raab-Straube, E. (2012): The need for and the requirements of EuroSL, an electronic taxonomic reference list of all European plants. – *Biodiversity & Ecology* 4: 15–24.

Dengler, J., Oldeland, J., Jansen, F., Chytrý, M., Ewald, J., Finckh, M., Glöckler, F., Lopez-Gonzalez, G., Peet, R.K., Schaminée, J.H.J. (2012) [Eds.]: Vegetation databases for the 21st century. – *Biodiversity & Ecology* 4: 447 pp. Biocentre Klein Flottbek and Botanical Garden, Hamburg.

Dengler, J., Oldeland, J., Jansen, F., Chytrý, M., Ewald, J., Finckh, M., Glöckler, F., Lopez-Gonzalez, G., Peet, R.K., Schaminée, J.H.J. (2012): Facilitating access to vegetation data – Introduction to the Special Volume. – *Biodiversity & Ecology* 4: 9–13. Biocentre Klein Flottbek and Botanical Garden, Hamburg.

Dengler, J., Rūsiņa, S. (2012): Database Dry Grasslands in the Nordic and Baltic Region. – *Biodiversity & Ecology* 4: 319–320.

Dengler, J., Todorova, S., Becker, T., Boch, S., Chytrý, M., Diekmann, M., Dolnik, C., Dupré, C., Giusso del Galdo, G.P., Guarino, R., Jeschke, M., Kiehl, K., Kuzemko, A., Löbel, S., Otýpková, Z., Pedashenko, H., Peet, R.K., Ruprecht, E., Szabó, A., Tsiripidis, I., Vassilev, K. (2012): Database Species-Area Relationships in Palearctic Grasslands. – *Biodiversity & Ecology* 4: 321–322.

Dolnik, C. (2012): Curonian Spit Biodiversity Plots. – *Biodiversity & Ecology* 4: 427–427.

Etzold, J., Münzner, F., Peters, J., Limberg, J., Wenzel, M., Dahms, T., Manthey, M. (2012): Vegetation Database of the Shahdag Region, Azerbaijan. –

Biodiversity & Ecology 4: 334–334.

- Facioni, L., Del Vico, E., Rosati, L., Burrascano, S., Tilia, A., Blasi, C. (2012): Dry Grasslands Database of Central Italy. – Biodiversity & Ecology 4: 398–398.
- Glöckler, F., Dengler, J., Jansen, F., Oldeland, J., Peet, R.K. (2012): Guide to GIVD's Fact Sheets. – Biodiversity & Ecology 4: 83–88. Biocentre Klein Flottbek and Botanical Garden, Hamburg.
- Golub, V., Sorokin, A., Starichkova, K., Nikolaychuk, L., Bondareva, V., Ivakhnova, T. (2012): Lower Volga Valley Phytosociological Database. – Biodiversity & Ecology 4: 419–419.
- Jandt, U., Bruehlheide, H. (2012): German Vegetation Reference Database (GVRD). – Biodiversity & Ecology 4: 355–355.
- Jansen, F., Dengler, J., Berg, C. (2012): VegMV – the vegetation database of Mecklenburg-Vorpommern. – Biodiversity & Ecology 4: 149–160.
- Jansen, F., Glöckler, F., Chytrý, M., De Cáceres, M., Ewald, J., Finckh, M., Lopez-Gonzalez, G., Oldeland, J., Peet, R.K., Schaminée, J.H.J., Dengler, J. (2012): News from the Global Index of Vegetation-Plot Databases (GIVD): the metadata platform, available data, and their properties. – Biodiversity & Ecology 4: 77–82.
- Kacki, Z., Sliwinski, M. (2012): Polish Vegetation Database. – Biodiversity & Ecology 4: 411–411.
- Kuzemko, A. (2012): Ukrainian Grasslands Database. – Biodiversity & Ecology 4: 430–430.
- Lysenko, T., Kalmykova, O., Mitroshenkova, A. (2012): Vegetation Database of the Volga and the Ural Rivers Basins. – Biodiversity & Ecology 4: 420–421.
- Michl, T., Huck, S. (2012): Vegetation Database Main-Kinzig + Bergland. – Biodiversity & Ecology 4: 361–361.
- Prisco, I., Carboni, M., Acosta, A.T.R. (2012): VegDunes – a coastal dune vegetation database for the analysis of Italian EU habitats. – Biodiversity & Ecology 4: 191–200.
- Rédei, T., Csecserits, A., Kröel-Dulay, G. (2012): Regional Vegetation Database of Kiskunság. – Biodiversity & Ecology 4: 392–392.
- Rédei, T., Kröel-Dulay, G., Csecserits, A. (2012): Long-term Database of Sandy Grassland of Fulophaza. – Biodiversity & Ecology 4: 393–393.
- Ruprecht, E., Fenesi, A., Szabó, A. (2012): Vegetation Database of the Dry Grasslands from the Transylvanian Basin. – Biodiversity & Ecology 4: 413–413.
- Rūsiņa, S. (2012): Semi-natural Grassland Vegetation Database of Latvia. – Biodiversity & Ecology 4: 409–409.
- Schaminée, J.H.J., Hennekens, S.M., Ozinga, W.A. (2012): The Dutch National Vegetation Database. – Biodiversity & Ecology 4: 201–209.
- Semenishchenkov, Y. (2012): Vegetation Database of Sudost-Desna Interfluvium Area. – Biodiversity & Ecology 4: 426–426.
- Šibík, J. (2012): Slovak Vegetation Database. – Biodiversity & Ecology 4: 429–429.
- Šilc, U. (2012): Vegetation Database of Slovenia. – Biodiversity & Ecology 4: 428–428.
- Spada, F., Agrillo, E., Roncalli, F. (2012): EVSItalia Database of Dry Grasslands. – Biodiversity & Ecology 4: 402–402.
- Stancic, Z. (2012): Phytosociological Database of Non-Forest Vegetation in Croatia. – Biodiversity & Ecology 4: 391–391.
- Uğurlu, E., İşik, D. (2012): Vegetation Database of the Grassland Communities in Anatolia. – Biodiversity & Ecology 4: 313–313.
- Vassilev, K., Dajiš, Z., Cuštereška, R., Bergmeier, E., Apostolova, I. (2012): Balkan Dry Grasslands Database. – Biodiversity & Ecology 4: 330–330.
- Venanzoni, R., Landucci, F., Panfili, E., Gigante, D. (2012): Toward an Italian national vegetation database: VegItaly. – Biodiversity & Ecology 4: 185–190.
- Willner, W., Berg, C., Heiselmayer, P. (2012): Austrian Vegetation Database. – Biodiversity & Ecology 4: 333–333.
- Yamalov, S., Muldashev, A., Bayanov, A., Jirnova, T., Solomesch, A. (2012): Database Meadows and Steppes of South Ural. – Biodiversity & Ecology 4: 291–291.



Adonis flammea. Photo: A. Kelemen

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 review (or reviews in general), please contact the Book Review Editor (dengler@botanik.uni-hamburg.de).

Oppermann, R., Beaufoy, G., Jones, G. (2012) [Eds.]: High Nature Value farming in Europe: 35 European countries – experiences and perspectives. – 544 pp., verlag regionalkultur, Ubstadt-Weiher. ISBN 978-3-89735-657-3. Price: 49.95 € [outside Germany, it is cheaper to order the book from book@efnecp.org for 45 € or 40 GBP + postage from UK].

This book has been edited by two EDGG members (Guy Beaufoy and Gwyn Jones), whom you might know from EDGG Meetings, and was mainly supported by the European Forum on Nature Conservation and Pastoralism (EFNCP; <http://www.efnecp.org>), of which EDGG is an institutional member.

While in the past, nature conservation was mainly focused on natural ecosystems that are largely untouched by humans, like tropical rainforests, only recently the awareness rose that Europe's traditional agricultural landscapes have a global relevance for biodiversity conservation, while their area is shrinking at a similar pace as that of tropical rainforests. In a recent paper, Wilson et al. (2012) have shown that at spatial scales below 100 m² no other natural or anthropogenic habitat

on Earth is as rich in vascular plants as Europe's High Nature Value (HNV) grasslands, except a few temperate grasslands in Argentina.

While Veen et al. (2009; reviewed in Bulletin 6: 23) provided already a nice overview of HNV grasslands in Europe, the perspective of the present volume is wider. In addition to grasslands, also heathlands, low-intensity arable fields, permanent crops (vineyards, orchards, dehesas, olive groves), and the various other structures found in traditional agricultural landscapes (walls, hedgerows,...) are covered in the contributions written by more than 100 authors.

The book starts with three introductory chapters, of which the third gives a detailed overview and categorisation of the types of HNV farmland. Then main chapter 4 (334 pp.) provides 35 country treatments (all EU countries + Switzerland + Norway + the countries of ex-Yugoslavia + Albania). Each of these treatments introduces with many photos of landscapes, plants, and animals the diversity of rural landscapes still extant on the territory; maps show the spatial distribution and boxes give the farmers a face who maintain the rural diversity. These little show cases raise optimism that even under the present-day economic framework it is possible to be a successful farmer and nevertheless safeguard the diversity on one's own land. The final three chapters reflect on experiences and perspectives of HNV farming (Chapter 5: 80 pp.), make suggestions how policies at EU and national level should support HNV farming (Chapter 6: 12 pp.) and provide brief conclusions and an outlook (Chapter 7).

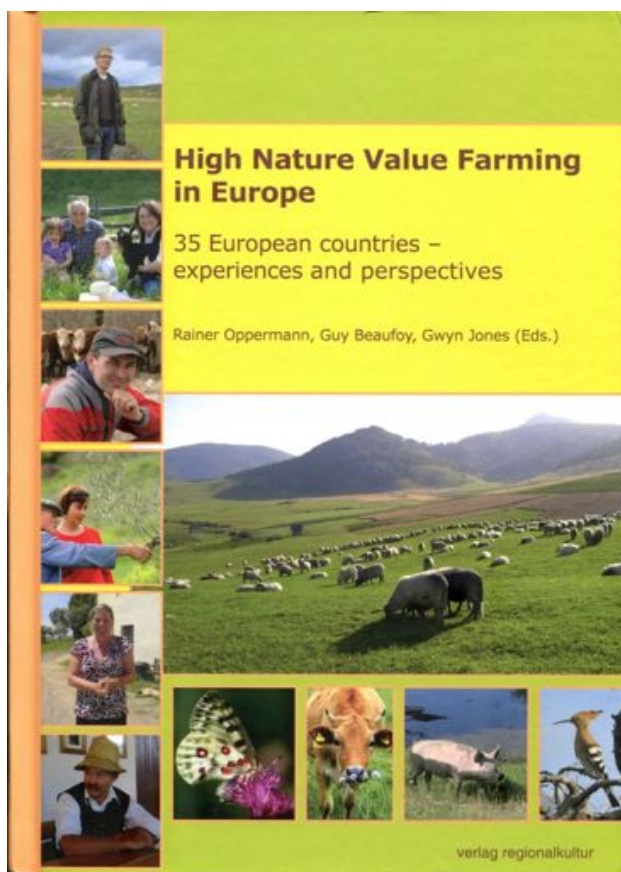
To conclude: the full-colour, hardback volume gives a comprehensive overview of High Nature Value farmland in Europe and with its informative text and its numerous beautiful photos is certainly worth its prize. Let's hope that many EU politicians read this book and realise that there is an urgent need to change Common Agricultural Policy (CAP) drastically, if we do not want to loose this major ecological and cultural heritage of the continent.

Dengler, J. (2012): Europäische Trockenrasen schlagen tropische Regenwälder. *Biologie in unserer Zeit* 42: 148–149.

Veen, P., Jefferson, R., de Smidt, J., van der Straaten, J. (2009) [Eds.]: *Grasslands in Europe of high nature value*. 320 pp., KNNV Publishing, Zeist.

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

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Forthcoming events

XIV Meeting of the FAO-CIHEAM Subnetwork on Mediterranean Pastures and Fodder Crops

3–6 October 2012, Samsun, Turkey

Contact: Ignacio Romagosa,

E-mail: iamz@iamz.ciheam.org

Details: <http://www.iamz.ciheam.org>

Plant Kingdom in the Red Data Book of Ukraine: Implementation of the Global Strategy for Plant Conservation

9–12 October 2012, Uman, Ukraine

Contact: Mykyta Peregrym,

E-mail: iamz@iamz.ciheam.org

6th Biennial Conference of the International Biogeography Society in Florida, USA

January 9–13, 2013, Florida, USA

Registration and abstract submission for symposia, contributed papers and posters will open in July 2012.

<http://www.biogeography.org/html/Meetings/2013/index.html>

10th European Dry Grassland Meeting (EDGM) When theory meets practice: conservation and restoration of grasslands

24–31 May 2013, ZamoscZamość, Poland

Registration will be open from autumn 2012

http://www.edgg.org/edgg_meeting_2013.html

56th IAVS Symposium Tartu, Estonia

Vegetation patterns and their underlying processes

26 June – 30 June

<http://iavs2013.ut.ee>

Online registration opens 1 November, 2012.

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)

22nd International Grassland Congress

Revitalising grasslands to sustain our communities

September 15–19, 2013, Sydney, Australia

<http://www.igc2013.com/pages/registration.php>



Centipede of species Scolopendra cingulata, from beneath rock on Mt. Devas. Photo: Stephen Venn





Eresus niger. Photo: J. Dengler

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Important dates: The deadline for Bulletin 17 is 20 November 2012

Bulletin 17 to appear: December 2012

Bulletin 18 to appear: March 2013