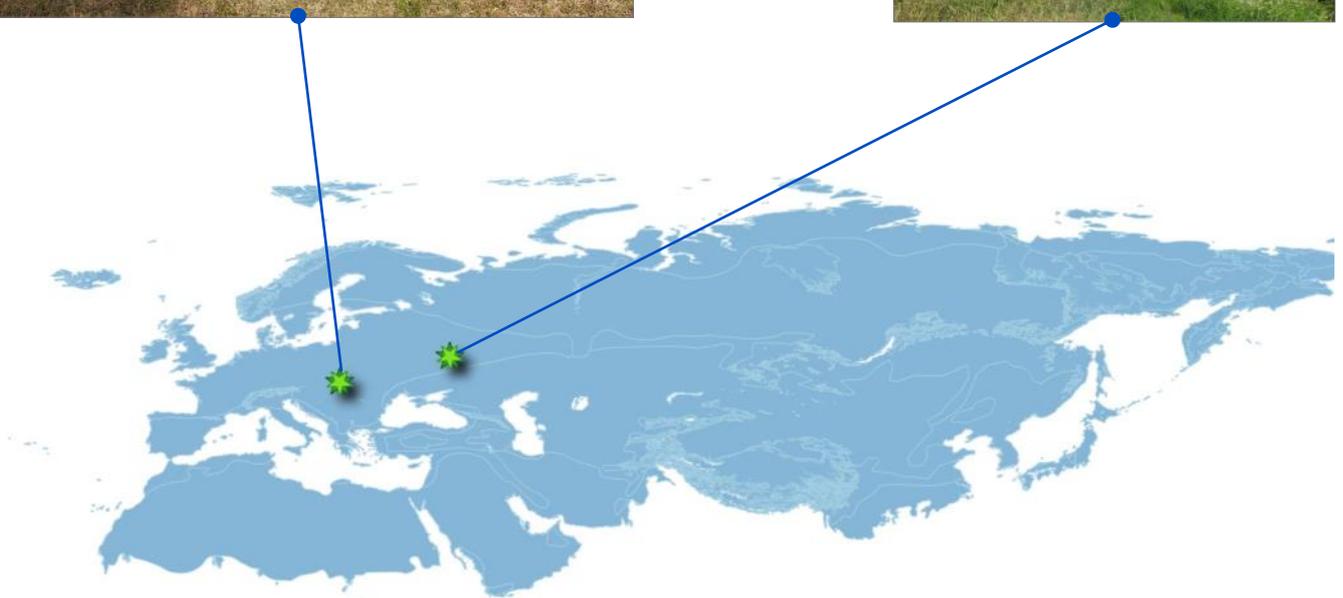


## Glimpses of a Grassland

This new section titled as “Glimpse of a Grassland” is intended to present short stories and nice photos of grasslands. In this current issue, the section includes 2 grasslands across the Palaeartic (see the Map below). We hope you will enjoy reading it. If you’d like to share your stories, please send them to [anyameadow.ak@gmail.com](mailto:anyameadow.ak@gmail.com) following a few rules:

- **1-2 authors**; please provide also your current city, country and e-mail;
- **Appealing title** followed after an en-dash by a **subtitle that indicates the locality and country**;
- Each “glimpse” should deal with **one grassland site**, but can do this with very different focus: **landscape, animals, vegetation types, management**.
- You should pick a **grassland site that is dear to you**, for example, because it is extraordinary or beautiful, you worked there a lot or you would normally be there in this season (if there would not be the Corona restrictions)
- Please provide the **coordinates** of your grassland site (lat/lon in decimal degrees, elevation in m a.s.l.)
- Please provide **3-8 photos** with captions (including the scientific names of illustrated species and the name of the photographer). One photo should be an overview photo of your grassland site in landscape format, suitable for printing the title across it. Instead of photos also scans of drawings and paintings are possible.
- We expect a **personal text written in the first person** and in a less “dry” style than usual scientific articles. Also a poem would be a possibility. Maximum length is 600 words.
- Please do not cite references in your text, but you can give **up to three references** (in normal PG style) at the end under the heading “Further reading”

*Didem Ambarlı & Chief Editor Team*



## Glimpses of a Grassland



The center part of the meadow in the Spring. Photo: M. Prommer.

Situated deep in Zemplén Mountains (NE Hungary) - the remotest and mightiest mountains of Hungary - Gyertyánkúti-rétek (Gyertyánkút meadows) is a famous and iconic site of Hungarian botany. The meadows which are surrounded by forests, have evolved on acidic-bedrock-formed compact forest soils with moderately rich humus content.



*Iris sibirica*. Photo: P. Török.

The *Molinia* meadows have high cover of *Molinia arundinacea* and the adjacent dry-mesophilous meadows are characterised by *Brachypodium pinnatum*, *Calamagrostis arundinacea* and *Carex montana*. The strictly protected meadows provide home for a diverse flora and fauna. They are inhabited by 350 vascular plant species (41 protected by the law) including 18 orchids and threatened species such as the protected *Gladiolus imbricatus*, *Adenophora liliifolia*, *Achillea ptarmica*, *Gentiana pneumonanthe*, *Dactylorchiza fuchsii*, *Gentianella livonica*, or *Traunsteineria globosa*. The fauna has a Carpathian subendemic Orthoptera species: the flightless *Pholidoptera transsylvanica*, and hosts other rarities including *Brenthis ino*, various *Maculinea species* and *Vipera berus*.

Most mountain hay meadows in the region were created by cuts of oak, oak-hornbeam, and beech forests, thus creating a diverse quasi-subalpine grassland habitat within the forest zone, considerably lower than the subalpine zone can be found. The creation of the hay meadows in the Zemplén Mountains dates back to the 17-18<sup>th</sup> centuries, when settlers from the Carpathians moved in the uninhabited region abandoned by previous inhabitants as a result of wars. Until the 20<sup>th</sup> century, the meadows were maintained by hand-mowing once a year, typically in July or early August. In the 1960's, socio-economic changes in the communist era lead to the gradual abandonment of the meadows and forest started to reclaim this realm immediately. Birch and hornbeam occupied most meadows, and some parts were even afforested by spruce. Thus, the once 100 ha meadows shrank to about 12 ha by the early 1980's. In order to preserve the grassland habitat and its species, students and professors of Kossuth Lajos University (now University of Debrecen) started restoration works unofficially, in the late 1980's, and in 1993 a formal restoration plan was developed in cooperation with conservation authorities.

The meadows “served” also as education sites for three generations of Hungarian botanists and conservation biologists. Authors of this paper started to work as students on the restoration of Gyertyánkút meadows. We hand-mowed and raked, which were more difficult tasks than we expected in the beginning. We were monitoring vegetation changes in permanent plots established at the very beginning of restoration works in three habitat types: *Molinion* meadows, dry-mesophilous meadows and former birch forest stands. We learnt much about species, especially grasses and sedges and their identification in various life-stages (especially in vegetative forms without flowers). For us, the evenings far from settlements, making suppers often of mushroom collected nearby, sitting around the campfire consuming local wines or/and beers and exchanging stories with and about our supervisors, not even mentioning the unpredictable and often pouring rains, hordes of mosquitos, painful bites from various insects and injuries from hooky plants, became unforgettable memories. Nowadays, the meadows are mowed by Aggtelek National Park Directorate. We hope that the meadows will fascinate further generations of botanists and ecologists in the forthcoming centuries.

**Further reading**

Török, P., Arany, I., Prommer, M., Valkó, O., Balogh, A., Vida, E., Tóthmérész, B. & Matus, G. 2009. Vegetation, phytomass and seed bank of strictly protected hay-making *Molinion* meadows in Zemplén Mountains (Hungary) after restored management. *Thaiszia - Journal of Botany (Kosice)* 19: 67–77.

Valkó, O., Török, P., Matus, G. & Tóthmérész, B. 2012. Is regular mowing the most appropriate and cost-effective management maintaining diversity and biomass of target forbs in mountain hay meadows? *Flora* 207: 303–309.

Valkó, O., Török, P., Tóthmérész, B. & Matus, G. 2011. Restoration potential in seed banks of acidic fen and dry-mesophilous meadows: Can restoration be based on local seed banks? *Restoration Ecology* 19: 9–15.

**Péter Török**, Debrecen, Hungary  
[molinia@gmail.com](mailto:molinia@gmail.com)

**Mátyás Prommer**, Debrecen, Hungary  
[mprommer@yahoo.com](mailto:mprommer@yahoo.com)



*Dactylorhiza incarnata*.  
 Photo: M. Prommer.



*Dactylorhiza sambucina*.  
 Photo: M. Prommer.



*Traunsteineria globosa*. Photo: P. Török.



Mown experimental *Molinion* meadow plot in 2006. Photo: P. Török.



*Dactylorhiza fuchsii*. Photo: P. Török.