

Habitat Guide of the Landscape Ecological Habitat Mapping of Hungary



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State of art:

- > For **nature conservation** and for landscape planning and management strategies, we need to know what kind of landscapes do we have with what kind of habitats and in what state are they in
- > **actual data** on the distribution and conservation status of the Hungarian habitats were needed, since there was no map of the actual vegetation of Hungary

A **satellite image supported field mapping** of (semi)natural habitats of all Hungary -**META**- was carried out in a hexagonal grid of 35 hectares between 2003-2007.

List and area proportions of habitats in each hexagon, and 17 other attributes including naturalness, threats, presence of invasive species, land use and landscape-ecological attributes were documented.

The **Habitat Guide** presented here was compiled especially for the purposes of this survey



The special aims of the Habitat Guide:

- > to serve as a comprehensive basis for the habitat survey
- > to ensure the equal quality of the mapping, since nearly 200 mappers were involved in this project
- > to present the list, definition and detailed description of the Hungarian habitat types in a way that it is understood clearly by the mappers

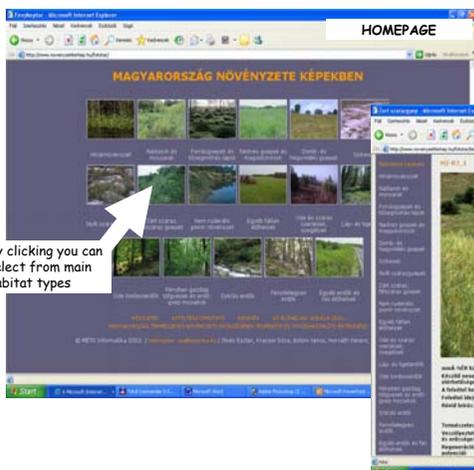
Concepts of the Habitat Guide:

> It is generally based on the original **Hungarian National Habitat Classification System - Á-NÉR** -developed originally in 1997 and used successfully in many vegetation surveys so far. This is a practice-oriented habitat classification compiled by several senior vegetation scientists for the purposes of habitat monitoring in the scheme of the **Hungarian Biodiversity Monitoring System** (<http://www.kvvm.hu/szakmai/biodiver/old/html/angol/sindex.htm> and http://www.termeszettvedelem.hu/index.php?pg=sub_445). The habitat list in the Habitat Guide - **Á-NÉR2003** - was created by the modification of Á-NÉR1997 especially for the META project.

> The habitat classification system of the Habitat Guide reflects the traditional phytosociological views while the emphasis is put more on the physiognomical approach and the site conditions.

> Definitions, detailed descriptions on the composition, physiognomy and site conditions with many examples based on the huge field experience of senior and younger field botanists make the core part of the Habitat Guide.

The **Habitat Guide** is very suitable for other habitat surveys beyond the META project as well



By clicking you can select from main habitat types

Habitat type, locality, date, short description, threats are given for each photo - direct link to Habitat Guide -

The structure of the Habitat Guide:

- > It contains **86 habitat types**, 81 of which are semi-natural habitats and 5 of them are degraded habitat complexes.
- > The Habitat Guide describes each habitat type in 1500-2000 words in the following chapters:
 - **definition** (2-3 sentences based on site conditions, physiognomy and dominant species mainly),
 - **site conditions** (climate, bedrock, main soil characteristics, main environmental processes),
 - **typical stand structure** (physiognomy, vertical and horizontal structure, height, cover, etc.),
 - **characteristic species** (dominants and subordinates, list of 15-30 species with a few words on the ecology of the species),
 - **vegetation context** in which the habitat type occurs (other typical habitat types of the landscape are listed with short comments),
 - **subtypes** (with short descriptions),
 - **stands not belonging to this category** (the correct category is given),
 - **recognizability on satellite images** (typical features (patterns) on the satellite image characteristic for the certain habitat type),
 - **naturalness-based habitat quality** (5-grade scale is used, definition of which is given in the Mapping Guide (see Molnár et al 2007). In the guide there are examples for how do the stands of the particular habitat in each naturalness category look like.
 - **regeneration potential** (experiences based on expert knowledge are written here)
- > There are many **examples** and explanation given by experienced mappers on characteristic and specific situations often seen on the field

Uniqueness of the Habitat Guide:

- > It stands in the fact that besides the **21 authors** (all of them well-experienced field-botanists), all of the more than **200 META mappers** contributed to its compilation in two steps.
- > All the mappers had to review at least 10 habitat types from the Habitat Guide and report their comments and opinion in writing and only after that were they allowed to start the mapping.
- > during the discussions on the compulsory three-day-long field-trips as preparation for the mapping the mappers raised their questions and added their comments. Their comments were incorporated to the Habitat Guide.



The Photo Gallery of Hungarian Habitats

- > compiled especially to help sharing knowledge of Hungarian habitats among scientists working on different fields and with wide public as well
- > a photo-databank complementing the Habitat Guide with 2-5 photos for each habitat type
- > Searchable, digital database of the photos of Hungarian habitats on the internet
- > www.novenyzetiterkep.hu/fototar

References and further reading:

- > Bölöni, J., Molnár, Zs., Ilyés, E., Kun, A. (2007): Vegetation based Habitat Classification of Hungary for mapping purposes. *Annali di Botanica*. In press.
- > Molnár, Zs., Bartha, S., Serégelyes, T., Ilyés, E., Botta-Dukát, Z., Timár, G., Horváth, F., Révész, A., Kun, A., Bölöni, J., Biró, M., Bodonczai, L., Deák, J.Á., Fogarasi, P., Horváth, A., Isépy, I., Karas, L., Kecskés, F., Molnár, Cs., Adrienne Ortmann-né Ajkai, A., Rév, Sz. (2007): A grid based, satellite-image supported, multi-attributed vegetation mapping method (META). *Folia Geobotanica*. In press.
- > Ilyés, E., Molnár, Zs., Bölöni, J., Horváth, F., Molnár, Cs., Botta-Dukát, Z., Révész, A. (2006): Landscape Ecological Habitat Mapping of Hungary (META). 1st European Congress of Conservation Biology "Diversity for Europe". 22-26. August 2006 - Eger, Hungary. p.37
- > <http://www.novenyzetiterkep.hu/meta/en/index.shtml>