

Traditional knowledge on habitats in an alpine landscape (Gyimes, Romania)



Daniel Babai, Montpellier, 2012

Photo: Ábel Molnár, Daniel Babai

Gyimes in the Eastern-Carpathians (Romania)



Diverse landscape created by humans



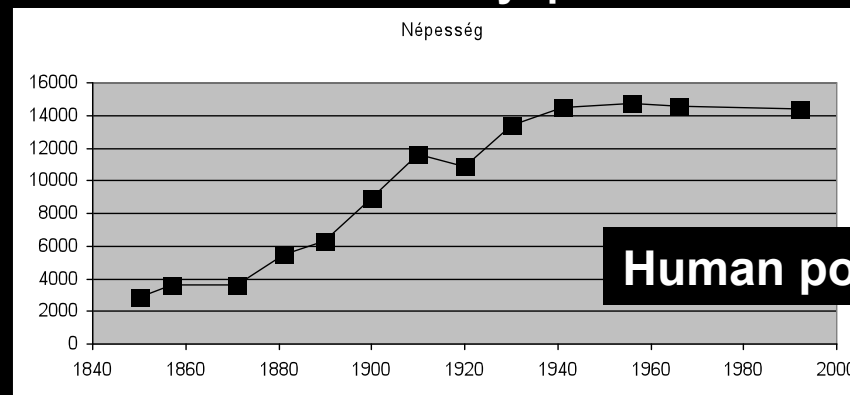
- Formerly coherent spruce-forest-zone – nowadays fragmented forest-patches;
- Species-rich, high nature value semi-natural grasslands (dominated by *Festuca rubra*, *Arrhenatherum elatius*, *Agrostis* species etc.);
- Mosaic landscape, self-subsistence economy - based on animal husbandry;
- Grasslands is threatened by abandonment



Local knowledge holders



- Csángó ethnic group, Hungarian mother tongue;
- First settlers: 18th century;
- 15.000 inhabitants (3 settlements);
- Special culture with lots of archaic cultural elements (dance, folk music, religion etc.)
- Self-subsistence economy - based on animal husbandry (cow and sheep)
- Kept in stable from October trough the end of April (7 months) fed on hay
- Arable cultivation: early 20. century: cereals and potato; 2nd half of the 20. century: potato.



Traditional ethnobotanical knowledge in Gyimes

Knowledge on species

- **595** vascular species in the local flora; **390** „visible” taxa;
- **294** plantspecies are known (75 % of the visible flora);
- **207** folk taxa;
- **269** local (mainly endemic) names;
- Specialists know more than **90%** of the folk taxa. The average knowledge is: **75-80%!**



Habitat-knowledge

- **143-146** distinguished habitat types;
- Multidimensional folk classification system
- Detailed knowledge about the habitat-preference



Knowledge on vegetation dynamics

- Local people have detailed knowledge on the succession of clear cut areas: they distinguish and name many successional stages.
- Meadows are managed to ensure good quality and large quantity of hay.
- Diversified landscape



Types of mountain hay meadows

	In-by meadows	Out-by meadows
Manuring	yes	no
Start of the mowing	End of June	Early August
Number of mowing	2 (3)	1
Quality and quantity of the hay	<u>more/worse</u>	<u>less/better</u>
Characteristic species	<i>Trisetum flavescens, Poa pratensis, Festuca rubra, Salvia partensis, Tragopogon pratensis, Colchicum autumnale</i> etc.	<i>Festuca rubra, Agrostis canina, Arrhenatherum elatius Veratrum album, Helleborus purpuracens, Vaccinium vitis-idaea</i> etc.

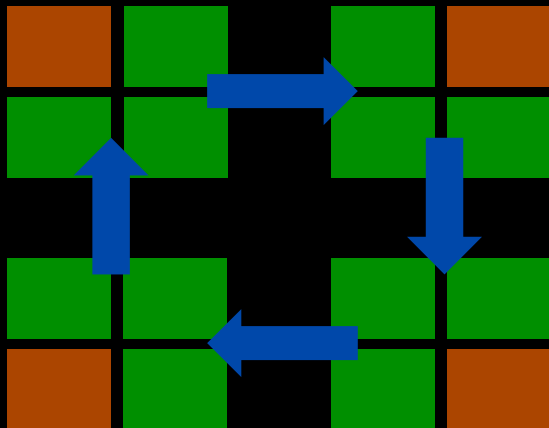
Management of mountain hay meadows

1. Mowing



„When the grass grows, so, when it starts to grow, and the wind is blowing in the morning, and begins to „powder“ (pollen), then you can mow. June 20th is now ready. (...) Then the grass is reached. (...) Then the hay are ready for mowing“

2. Parcel-rotation



They mow in different order the in-by and out-by parcels year by year. Thus, there are opportunities for good quality, young hay production, as well as for seed ripening in the different parcels.

„Early cut yields better grass, but if you mow it every year too early, than the seeds do not ripe.“

Management of mountain hay meadows

3. Spreading hayseeds: on places, where the vegetation is killed by frost, and on abandoned arable fields to speed up grassland regeneration.

„I put it (the hayseeds) on Trifolium fields, when it became sparse, I saw the hayseeds. The field turned to green, and there was a high grass.“



Collecting hayseeds

4. Sowing *Onobrychis viciifolia* seeds (on steep slopes with southern aspect)

*„There was also a rocky hillside, and grass was sparse on it. We collected *Onobrychis*-seeds, and sown it. It was so fine afterward, we gave it to the pigs.“*



Management of mountain hay meadows

„If some body cure it, will benefit.“

5. Clearing in spring (leaves, branches, anthills, molehills etc.);

6. Manuring: in every 2nd or 3rd year, spread in early spring;

7. Drainage the rich fens and to reduce the extent of mossy areas



Management of mountain hay meadows

8. Selective eradication of „burjáns” (pasture and meadow weeds)

Ördögborda – Pteridium aquilinum



**Kecskekapor –
Laserpitium latifolium**



**Eszpenz
– Helleborus
purpurascens**



**Lósósdí –
Rumex alpinus**



**Varjúhagyma –
Colchicum autumnale**



**Ászpa – Veratrum
album**

Conclusions

- **We found a special mowing-system: parcel-rotation, which is incomparable in the grassland-management in Europe;**
- **The species-composition of semi-natural grasslands is influenced by landuse;**
- **Traditional, extensive land-use system is able to maintain diverse landscapes.**



