

# Pilot agri-environment programme for threatened meadow-steppe grasslands:

## A case study from Transylvania (Romania)



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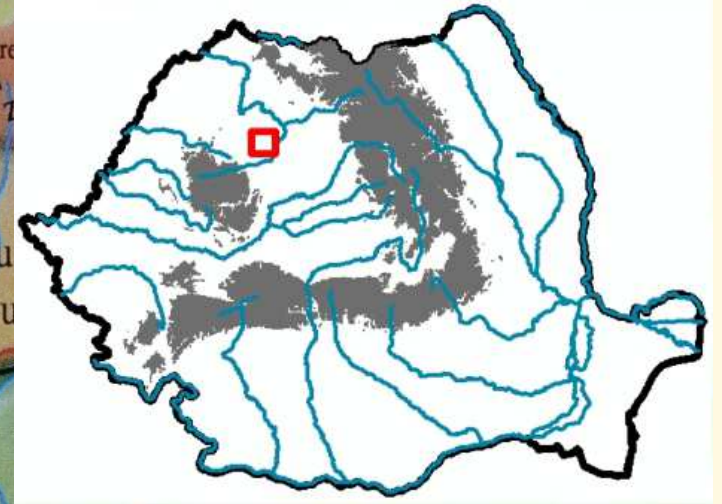
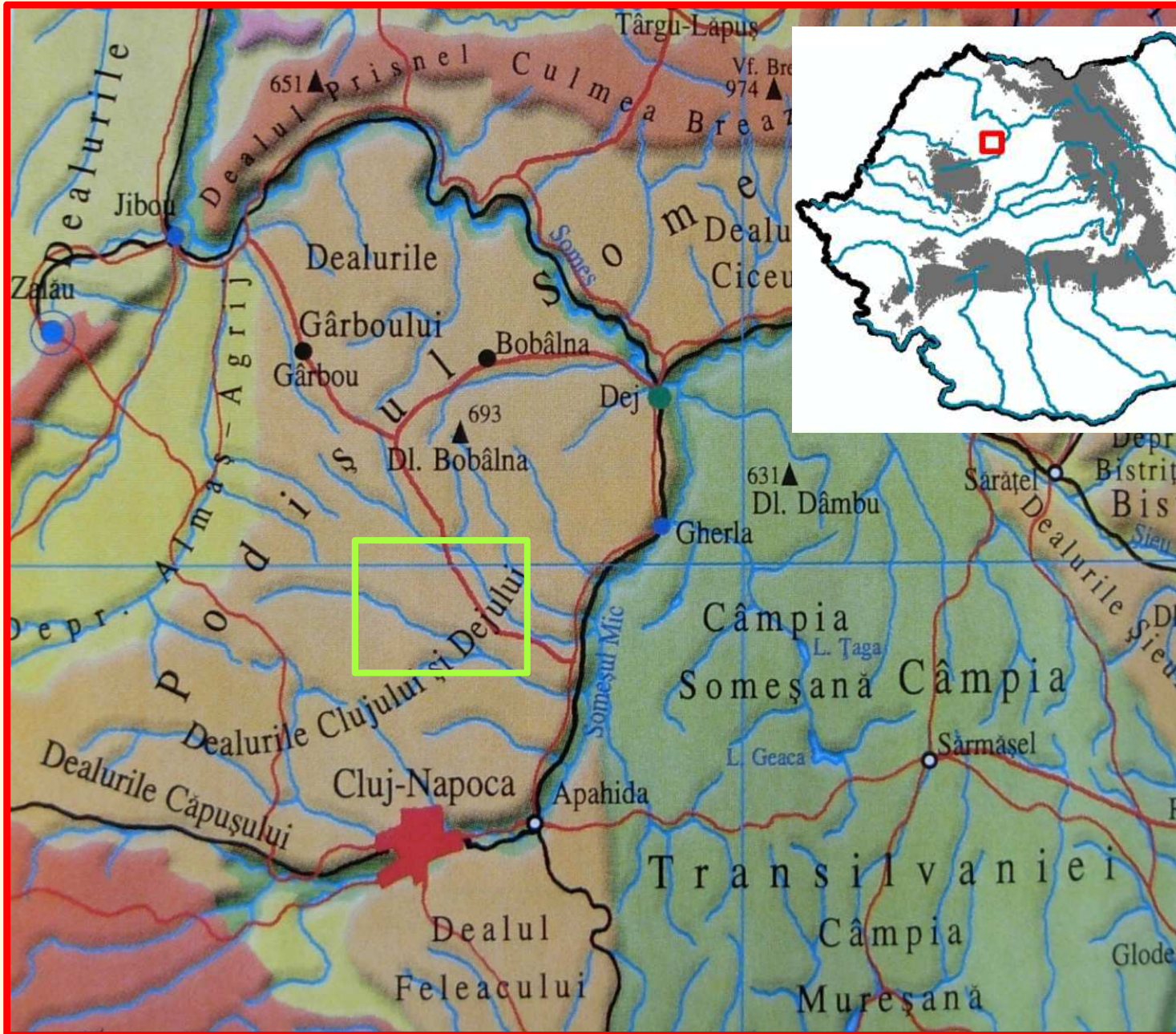
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# Background

- **Agri-environment** measures: farmers are rewarded for an ecologically friendly management; their land has to be registered.
- Pilot agri-environment programme: Experiences through applied conservation and studies about
  - land use,
  - socio-economy,
  - administrative issues,
  - ecologyin a transition country.



# Study area: SCI near Cluj-Napoca

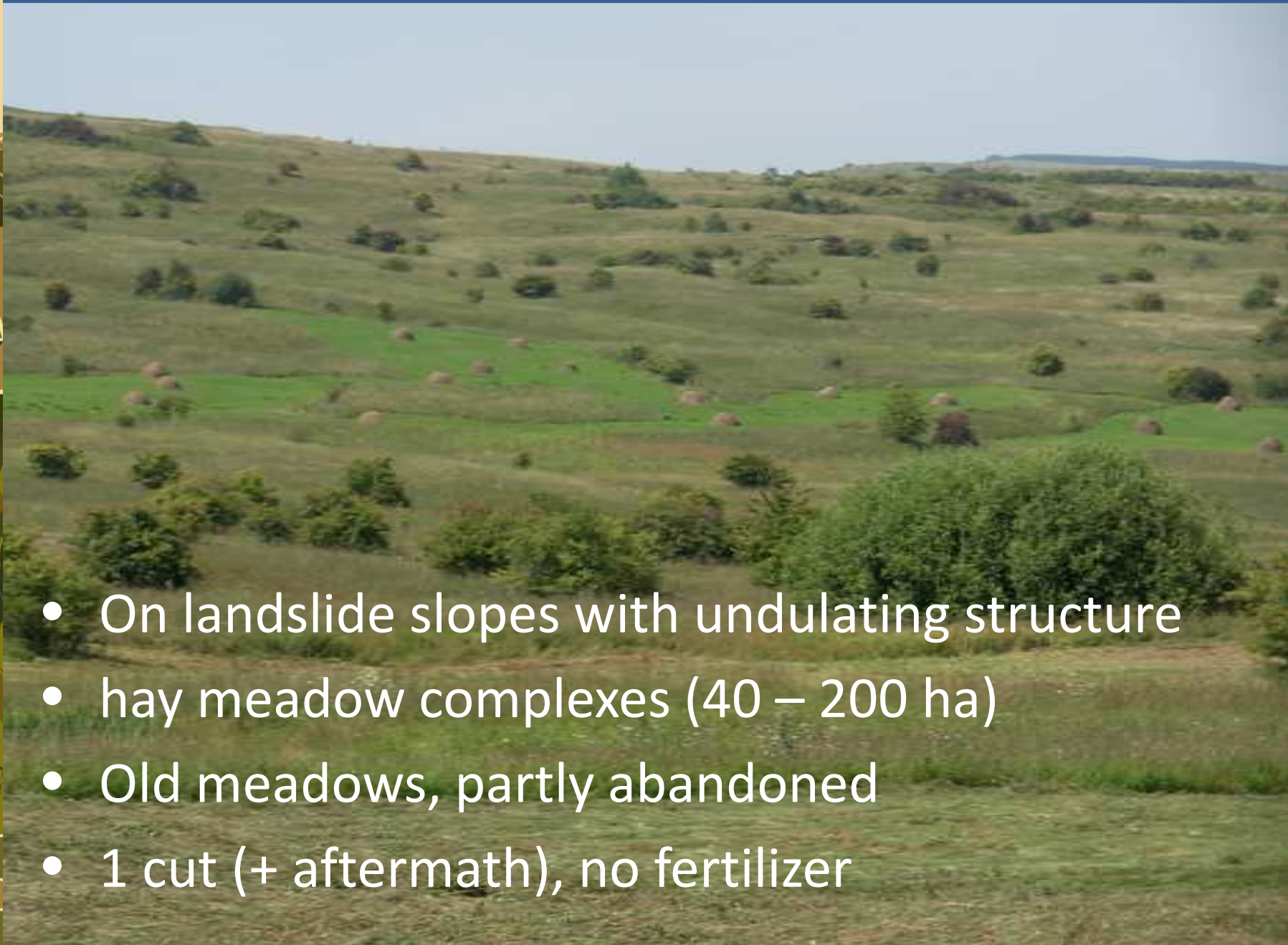


# Land use, socio-economic situation

- (Semi)subsistence farming
- Declining cattle numbers, increasing sheep grazing



# Extensively-farmed hay meadows



- On landslide slopes with undulating structure
- hay meadow complexes (40 – 200 ha)
- Old meadows, partly abandoned
- 1 cut (+ aftermath), no fertilizer

# Complex vegetation pattern

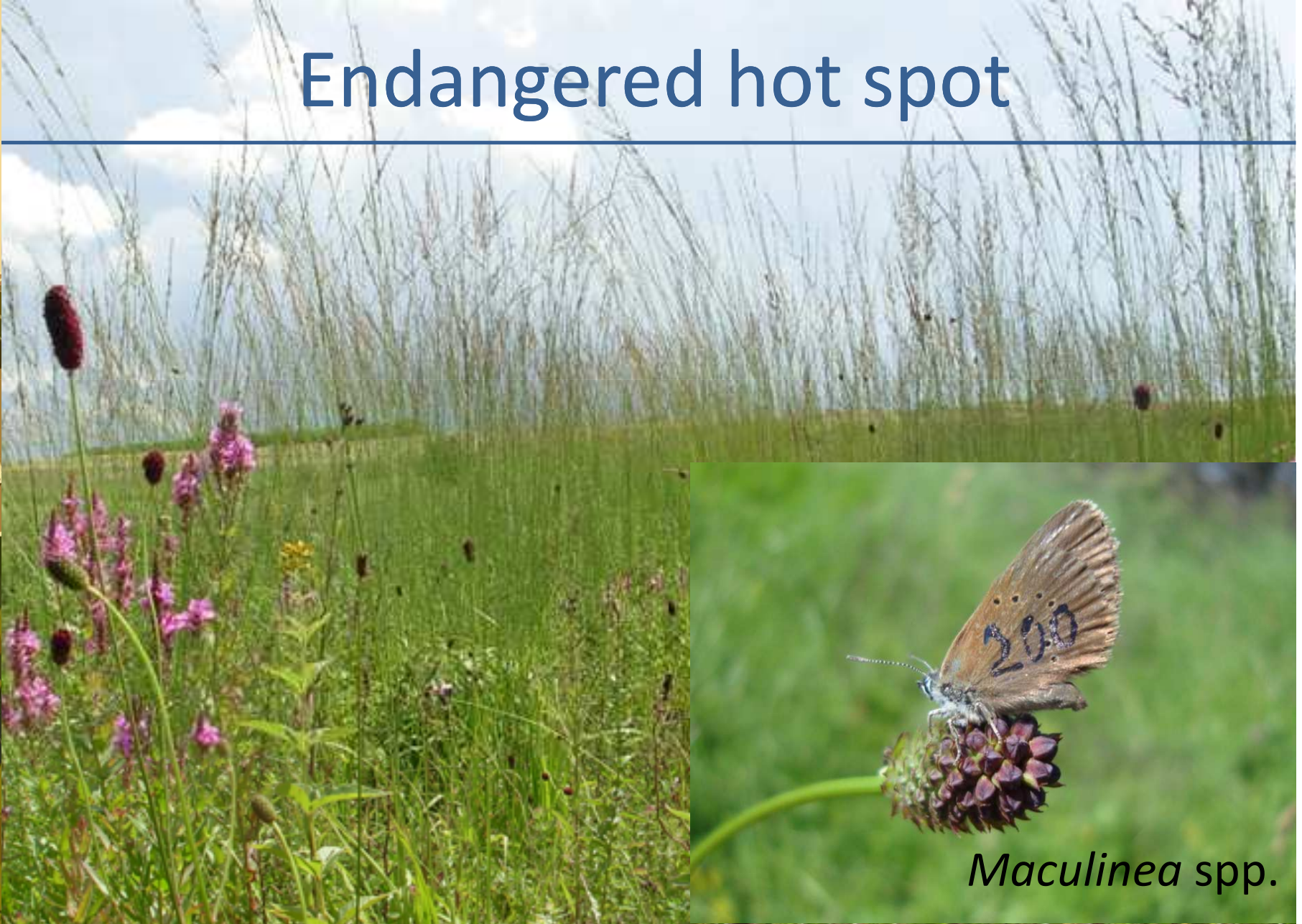


- Mosaic of dry to wet grasslands
  - *Cirsio-Brachypodion* (6210) – meso-xerophile meadow steppes
  - *Molinion caerulaea* (6410) – *Molinia* meadows

# High species diversity



# Endangered hot spot



*Maculinea* spp.

- Unique : 5 species of butterfly genus *Maculinea*
- Threats: abandonment of mowing, land use change



# Pilot Programme in 2011

## Aims:

- Contribute to protection of *Maculinea* spp. and their hay meadow habitats
- Learn lessons for national Agri-Environment programme

## Requirements:

- Mowing compulsory, date after 25th of August

## Area:

- 34 ha in 3 hay meadows; 30 farmers



# Implementation



# Results: Success of programme

- Comparison mown 2010 and 2011:
  - Hay meadow 1: 23% -> 31%
  - Hay meadow 2: 12% -> 20%
  - Hay meadow 3: 0% -> 3%
- Impact of pilot programme:
  - 54% have mown in 2010 + would have mown
    - (63 % earlier)
  - 46% wouldn't have mown



# Results: Mowing dates

## Traditional mowing dates

June: 20%

July: 80%

August: 50% (until 15th of August)

Sept: 0%

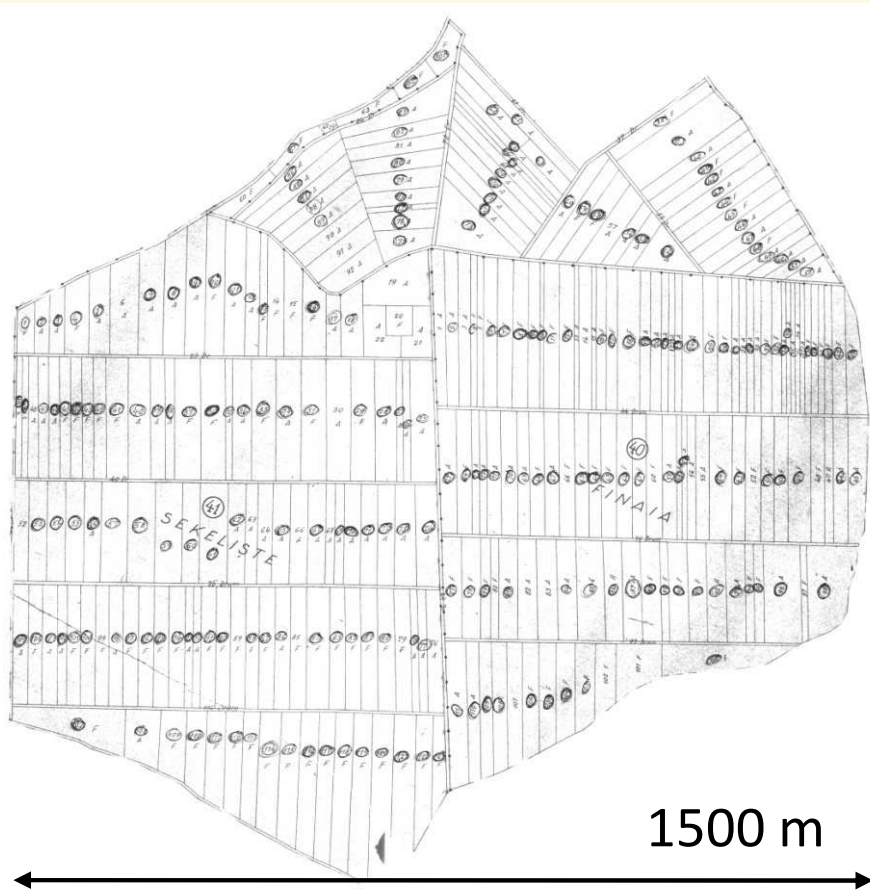
## In 2011 – surface mown after 25th of August

Hay meadow 1: ca. 30%

Hay meadow 2: ca. 55%



# Results: Property structure

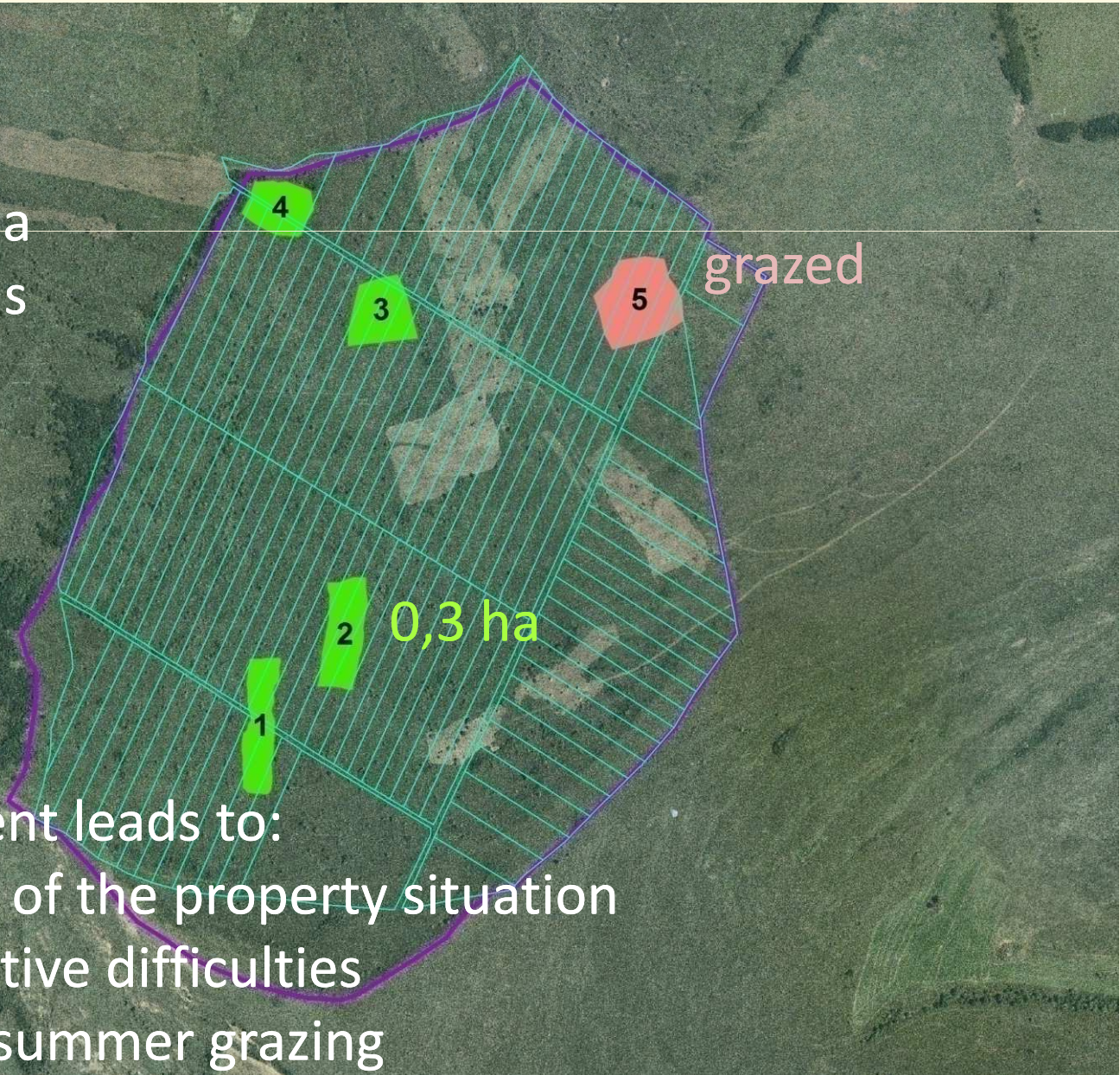


- ca. 300 parcels on 175 ha
- property situation of 1940ies reinstalled



# Property structure, abandonment

Total: 40 ha  
111 parcels



Abandonment leads to:

- neglect of the property situation
- administrative difficulties
- increased summer grazing

# Results: Mowing heterogeneity 2010-2011

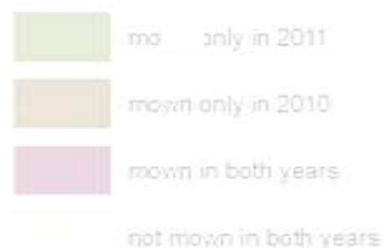
## Ecological questions:

- What is the optimal percentage of unmown parts?
- How long should/could the fallow periods be?
- *Maculinea*: Late mowing date or fallow areas?

## Socio-economical and administrative:

- How can the mosaical management be organized (with more than 100 owners)?

### Legend



# Conclusions

- Some meadows highly threatened through abandonment
- Active meadows: land use diversity potentially leading to high biodiversity of plants and animals
- But: transition time, challenge how to ensure the mosaical management in the future
- Pilot programme: close contact to communities allowed insight in issues potentially important also for national scheme
  - Proposal for agri-environment package for hay meadows in Romania
- As long as keeping cows is not attractive, AES can be an important way to maintain the hay meadows





# Thank you for your attention!

## Thanks to:

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- DBU
- EFNCP



- The team of the Mozaic Project

