Results-based agri-environment payment schemes in Romania: past pilot schemes; present situation; future prospects.



### Cristi Gherghiceanu

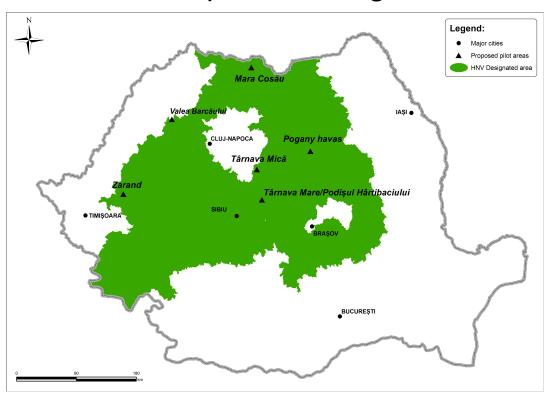
Fundatia ADEPT Transilvania

LIFE Platform Meeting: Agriculture for the Benefit of Biodiversity

How can results-based payment schemes address the biodiversity crisis?

Leuven, Belgium – 9 -11 October 2024

# Background: over 2 million ha of High Nature Value permanent grasslands



### Mosaic and connectivity characteristics



Mosaic of habitats and management has supported remarkable biodiversity: Habitats Directive species, Birds Directive species, many with conflicting management requirements, have co-existed in this area for hundreds of years. Challenge is to develop incentives to maintain the mosaic management



Mosaic at parcel level



Tab. 2: Some EU Habitats Directive habitats typically found in Romania's HNV farmland areas

Code	Name
40A0*	Sub-continental Peripannonic scrub
6210*	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Fes- tuco-Brometalia) with important orchid sites
6230*	Mountain pastures with Nardus
6240*	Sub-Pannonic steppic grasslands
62C0*	Ponto-sarmatic steppes
6410	Molinea meadows
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels
6510	Lowland hay meadows (Alopecarus pratensis, Sanguisorba officinalis)
6520	Mountain hav meadows

Tab. 4: Some EU Birds Directive species typically found in Romania's HNV farmland are

Species Species	Species		
Aquila pamarina (lesser spotted eagle)	Crex crex (corncrake)		
Aquila chrysaetas (golden eagle)	Picus canus (grey-headed woodpecker)		
Circoetus gallicus (short-toed eagle)	Lanius collurio (red-backed shrike)		
Circus oeruginosus (western marsh harrier)	Lanius minar (lesser grey shrike)		
Circus cyoneus (hen harrier)	Lultula arbarea (woodlark)		
Falca vespertinus (red-footed falcon)	Anthus compestris (tawny pipit)		
Pemis apivarus (European honey buzzard)	Coprimulgus europoeus (European nightjar)		
Bubo bubo (Eurasian eagle owl)			
Cicania cicania (white stork)			
Ciconio nigro (black stork)	PARTIE AND PROPERTY.		

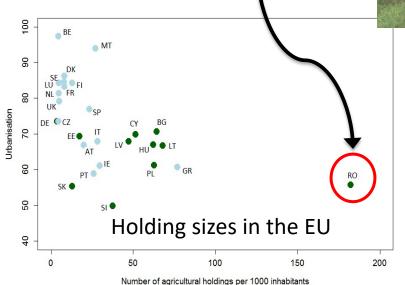
	Group	Species	Group	Species
labitats	Plants	Echium russicum	Lepidoptera	Callimorpha quadripunctaria (Jersey tiger moth)*
Nina akina	-	Crambe tataria		Catopta thrips
Directive		Cypripedium calceolus		Eriogaster catax
nabitats and		Angelica palustris		Euphydryas aurinia (marsh fritillary)
ianitats alia		Iris aphylla		Euphydryas maturna (scarce fritillary)
pecies,		Adenophora liliifolia		Leptidea morsei (Fenton's wood white)
pecies,	Also:	Cephalaria radiata (endemic)		Lycaena dispar (large copper)
Birds		Salvia transsylvanica (end.)		Maculinea teleius (scarce large blue).
711 G 5	Mammals	Ursus arctos *	Lepidoptera	species protected under Berne Convention
Directive		Lutra lutra		Proserpinus proserpina
		Myotis myotis		Maculinea arion (large blue)
pecies, that		Barbastella barbastellus		Aricia eumedon (geranium argus)
•	Reptiles	Lacerta agilis		Brenthis ino (lesser marbled fritillary)
o-exist in		Natrix natrix		Brenthis daphne (marbled fritillary)
		Emys orbicularis		Brenthis euphrosyne (pearl bordered fritillary)
nosaic	Amphibia	Triturus cristatus		Lycaena alciphron (purple shot copper)
		Rana dalmatina		Lycaena helle (violet copper)
		Bombina variegata		Maculinea alcon (alcon blue)
		Rana temporaria		Plebeius argus (silver studded blue).





Mosaic exists partly because of small farm sizes → varied management choices and timings

Romania is an EU outlier in terms of farm sizes: over 90% of holdings are under 5 ha



- → Delivery of A-E payments to a large proportion of HNV farmland is challenging.
- → So, simple and flexible scheme designs are best

### The past: 2015-2018

### Romanian pilot RBAPS project

Laura Sutcliffe, Rainer Oppermann - Institute for Agro-ecology and Biodiversity (IFAB)

Razvan Popa, Nat Page - Fundatia ADEPT Transilvania















### Objectives

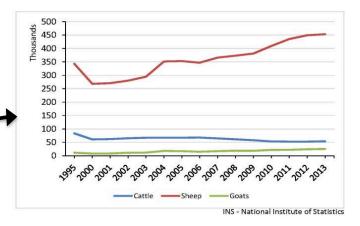
To support species rich **meadows** in the target areas, counteracting abandonment or intensification.

We chose meadows because:

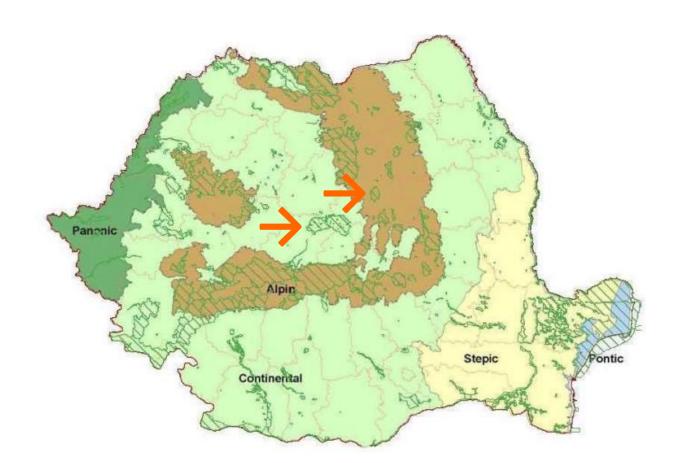
- They tend to have single ownership (as opposed to communal)
- They are in a generally homogeneous ecological state
- They are not currently supported by market forces, a-e schemes or Natura 2000
- Threatened and decreasing

Increase of sheep numbers, fall of cattle, has reduced the need for haymeadows





### Where: Tarnava Mare (Continental) and Pogany-Havas (Alpine)



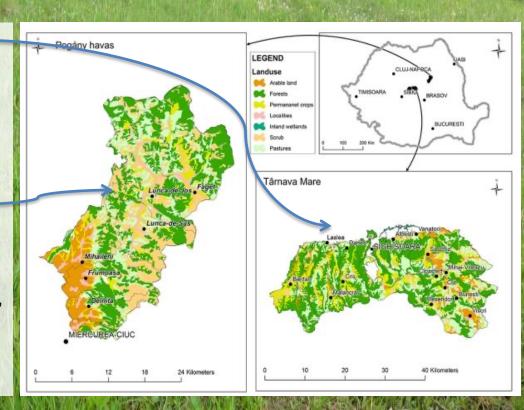
#### **Târnava Mare:**

approx. 85,000 ha, 350-700 m altitude: Continental b-g region

## Pogány-havas (Muntii Ciucului):

approx. 60,000 ha, 650-1500 m altitude: alpine b-g region

→ HNV, Natura 2000, good relations between project partners and farmers



# We decided to develop simple list of indicator flower species

#### Monitoring in 2015 to determine suitable species, which:

- ✓ Only grow at low intensity hay meadows
- ✓ Are relatively easy to identify
- ✓ Are associated with high plant & animal species richness
- ✓ Are associated with good quality hay
- ✓ Are not rare
- ✓ Are sensitive to changes in management

### 30 indicator species for Tarnava Mare (Continental) and Pogany Havas (Alpine)

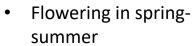


Primula spec.



Same list for two regions

- Easily to recognize
- Species groups to avoid confusion



Indicators for wet, mesic & dry meadows





Fragaria spec.

### Indicator species for TM & PH – more examples



Dianthus spec.



Scorzonera purpuraea



Trifolium montanum



Filipendula vulgaris



Leucanthemum vulgaris

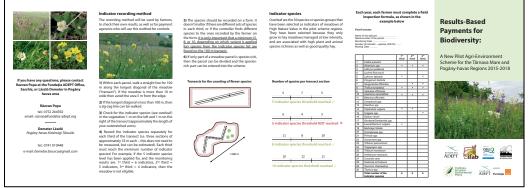


Thymus spec.

#### Meadow types

- -6210 (Semi-natural dry grasslands and scrubland facies on calcareous substrates)
- -6510 (Lowland hay meadows)
- -6520 (Mountain hay meadows)
- -Other High Nature Value grasslands (not necessarily Habitats Directive)

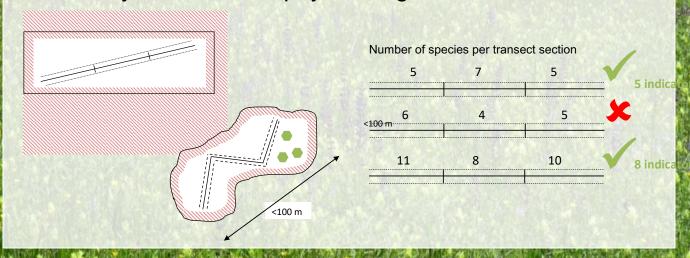
## We developed simple plant identification guides for farmer use





### ... and a simple indicator recording method

Used by farmers AND payment agencies



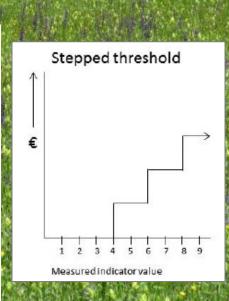
# We developed payment levels that were competitive with existing a-e payments

- 3 payment levels calculated with methodology (income foregone) agreed by Managing Authority:
  - 5 species: €213 / ha / year
     8 species: €229 / ha / year
  - 10 species: €259 / ha / year

Payments were calculated using Ministry methodology, to encourage uptake by the Ministry in future a-e schemes

#### Contract holders...

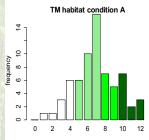
- → cannot step down during contract period
- → are incentivised to manage in a way to step up to get higher payment rates

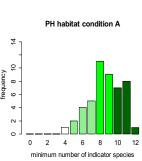


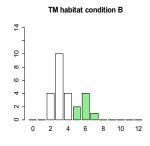
## Why these levels? Based on statistical analysis of transects in haymeadows in both areas

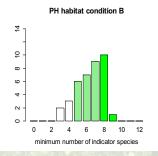
Number of transects achieving the different indicator species levels according to habitat conditions status.

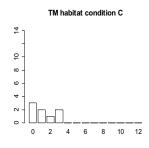
A = favourable
B = unfavourable –
insufficient
C = unfavourable –
bad

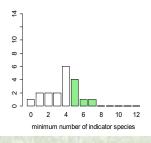






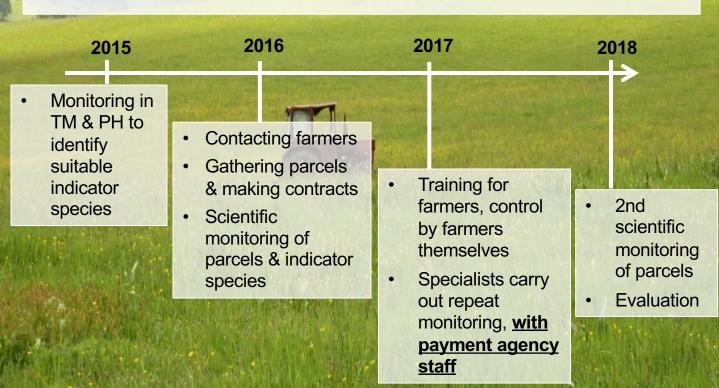






PH habitat condition C

### Schedule of RBAPS pilot project



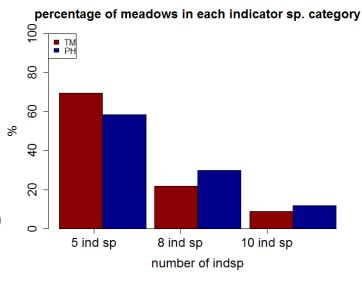
# Differences between Alpine and Continental

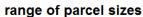
Many smaller parcels in Alpine (PH) compared to Continental (TM)

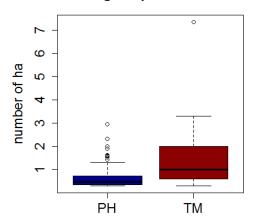
- 16 farmers, 45 parcels in TM. 63 ha. Average parcel size 1.4 ha
- 60 farmers, 162 parcels in PH. 110 ha. Average parcel size 0.68 ha

Alpine had greater species diversity, higher proportion of over 10 species per transect.

Farmer knowledge of flower species was higher in Alpine, partly due to uninterrupted land ownership (many Saxons left the Continental, area in 1990, Hungarians in Alpine remained).







#### **Evaluation**



- Farmers enjoyed the flexibility of the scheme. More freedom for farmers. More adaptable to local conditions (wet year/dry year, aspect, slope, altitude, etc.)
- More applicants than budget allowed
- Farmers' species knowledge was mixed: some farmers had good knowledge already, all were interested to learn.
- We involved the inspection/payment agency who supported the scheme: said that it was practical to inspect using the indicators and methodology
- Support in species identification through advisors and/or an app would help scheme delivery

### Future use of RBAPS pilot?

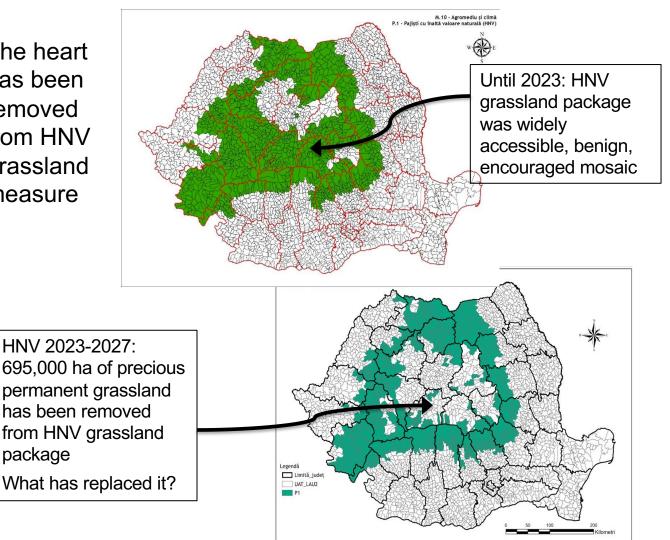
- There are currently no RBAPS a-e payment schemes in Romania
- In spite of encouragement by Brussels DG Agri, and although APIA Payments Agency commented that monitoring of the scheme was practical and costeffective, the Managing Authority (Ministry of Agriculture & Rural Development) have failed to adopt RBAPS into national policy
- Disappointing. We must keep trying.
- There are currently no Natura 2000 payments in Romania. Could RBAPS be used as an option for Natura 2000 areas?

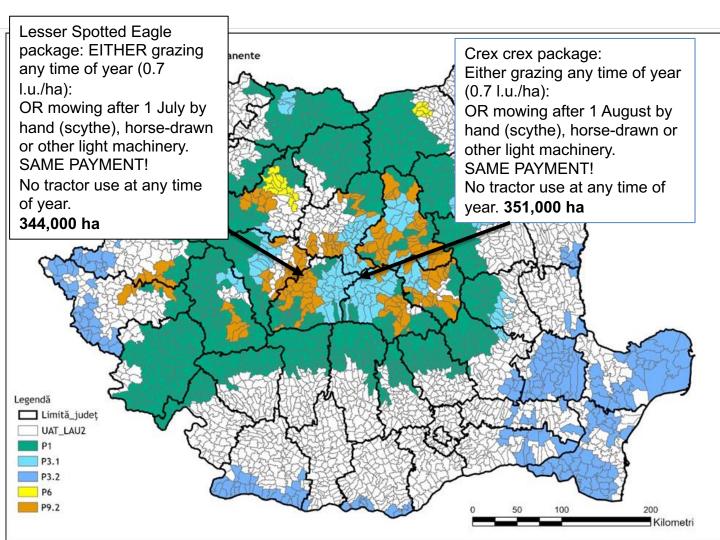
# Present situation 2024: Romania a-e measures have moved in the wrong direction

- Haymeadows do not receive higher payments than pasture, in spite of greater resrictions, so perverse incentive to convert haymeadows to pasture
- Measured loss of haymeadows denied by the Ministry
- As mentioned, no RBAPS packages
- No Natura 2000 payments
- A-e payments now are one of the biggest threats to biodiversityin Romania: highly prescriptive measures mis-applied at landscape scale with no menu for farmers to choose from.

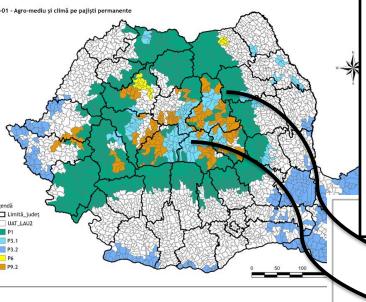
The heart has been removed from HNV grassland measure

package





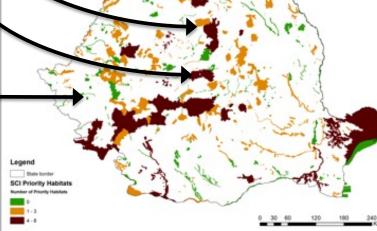
### Failure of design



Highly prescriptive single-species measures are damaging Habitats Directive habitats and species:

- is being applied across SCI areas which have over 4 priority Annex I habitats, and vulnerable Annex II species, over 90% of which are not even potential Crex habitat
- Crex mowing management is impractical and destructive of species
- Lowland hay meadow is also directly threatened by Crex measure as strong financial incentive is given for meadow conversion to pasture

Priority HD habitats from PAF Romania 2014-20: black indicates >4 priority habitats



#### **BUT LET'S BE POSITIVE!**

#### **Future ideas**

- 1. Promote replication of pilot
- Butterfly indicators under development

SAFEGUARD Horizon project is examining the use of pollinators as indicators for result-based payments







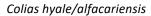
Laszlo Rakosy, Răzvan Popa, Cristina Costache, Flaviu Bodea, Demetra Rakosy



# Developing indicator list for permanent pasture

Checking the possibility to use common butterfly species as indicator for permanent pasture (7-8 species)
 Colias hyale/alfacariensis, Maniola jurtina,
 Plebejus argus, Polyommatus icarus/thersites,
 Melitaea sp., Lycaena phleas, Boloria dia







Plebejus argus, male



Boloria dia

# Developing indicator list for haymeadows

7-8 species including *Maniola jurtina*, *Polyommatus icarus*, *Thymelicus ssp.*, *Coenonympha glicerion* 



Coenonympha arcania



Thymelicus lineola



Melanargia galathea



Coenonympha pamphilus



Glaucopsyche alexis



Melitaea athalia

# Developing indicator list for scrub and woodland

7-8 species including







Satyrium acaciae

Satyrium pruni

*Ipichlides podalirius* 

+ 4 other butterfly species: Aphantopus hyperantus, Ipichlides podalirius, Callophrys rubi, Aporia crataegi)

### Butterfly RBAPS design

- **3 payment levels** according to the number of species (3, 5, 7-8 sp)
- Payment varies between €150 €250 per ha according to the number of species.
- Addition payments will be available for manual mowing, €200 per hectare, and mowing with light machinery. €25 per ha.
- Will be harmonised with payments proposed for indicator plant species
- Checking the possibility to use bumblebees as indicators, for ease of monitoring, will be based simply on colour: yellow, red, white abdomen.
- Using the combined method, plants, butterflies (bees) as indicators for differentiated payments would more accurately reflect reality and contribute more effectively to maintaining biodiversity.
- The combined method also contributes more effectively to changing the mindset of farmers by involving them directly in the assessment and perception of the biodiversity of grasslands.

### Future prospects

- Satellite evidence that haymeadows are being lost
- Support from experts across Europe, and many published papers, give evidence of damaging effects of current approach.

We hope by late 2025 to work with the Ministry to generate some improvements. We hope that large scale irreversible changes have not taken place!

Results-based approach would help to solve current problems in Romanian a-e scheme design.

Idea: invite Romanian policy makers the future RBAPS meetings and demonstrations. They will need to meet policy makers and payment agencies as well as farmers, to convince them of practicality



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