

Grassland Restoration not only in the White Carpathian Mts



Ivana Jongepierová

Nature Conservation Agency of the Czech Republic



Grassland management measures

- Regular management of preserved grasslands
- **Restoration of grasslands degraded by former fertilisation**
- Resumption of management at abandoned sites
- **Re-creation of grasslands on arable land**



Restored habitats

White Carpathians (Bílé Karpaty) PLA

Habitat of interest:

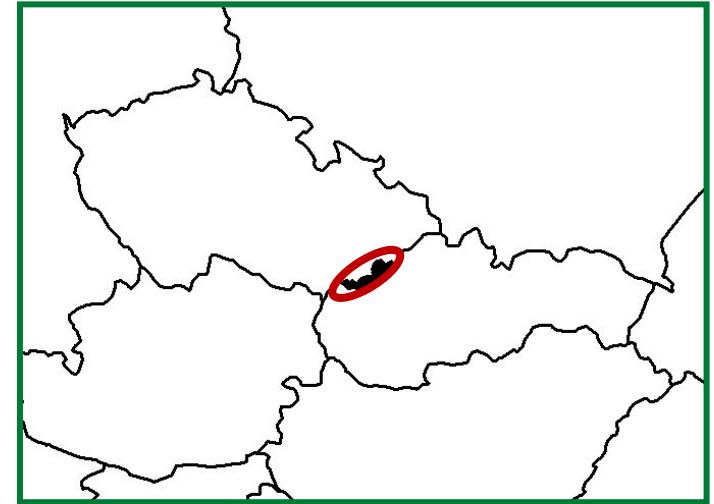
Semi-natural dry grasslands (6210*)

Morava River floodplain

Habitats of interest:

Alluvial meadows (6440)

Pannonic sand steppes (6260*)



Management resumption



Integrated Protection of Rare Butterfly Species of Non-forest Habitats in the Czech Republic and Slovakia

Coordinating beneficiary: NCA CR + 5 associated beneficiaries

Period: 2011–2016

- 100 ha of abandoned meadows cleared of shrubs
- 25 km of hedges pruned

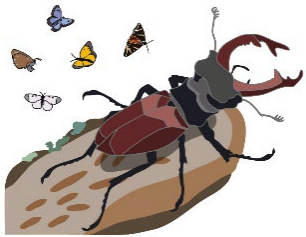


Conservation of Selected Natura 2000 Insect Species in Transboundary Area (CZ-SK) of Western Carpathian Mts

Coordinating beneficiary: NCA CR + 5 associated beneficiaries

Period: 2017–2022

- 210 ha of open-canopy forests and pastures



LIFE for Insects



Management resumption



Management resumption

2019 – 33 species



2021 – 117 species



2020 – 89 species



2022 – 129 species



10 phytocenological relevés, 2019–2022; VI–VII, area 10×10 m

Grassland re-creation

„Regrassed“ since 1990: \pm 7,000 ha

- by **spontaneous succession** (5%)
- with species-poor **commercial seed mixtures** (88%)
- with species-rich **regional seed mixtures** (7% = 600 ha since 1999)



Anacamptis pyramidalis



Ophrys apifera

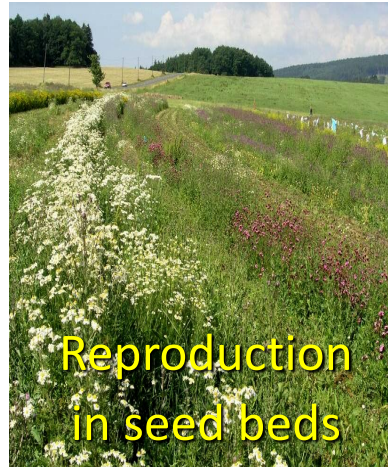
Grassland re-creation



since 1993



Seed collection
in the field



Reproduction
in seed beds



Purification

85–90% grasses

10–15% forbs
(20–25 species)

sowing rate
20 kg/ha

production
c. 600 kg/yr



Brush harvesting



Regional seed preparation

Grassland re-creation

sown May 2007

area 12.25 ha

grasses 80%, herbs 20%, sowing rate 20 kg/ha



Polyommatus dorylas



Anthyllis vulneraria

Grassland re-creation



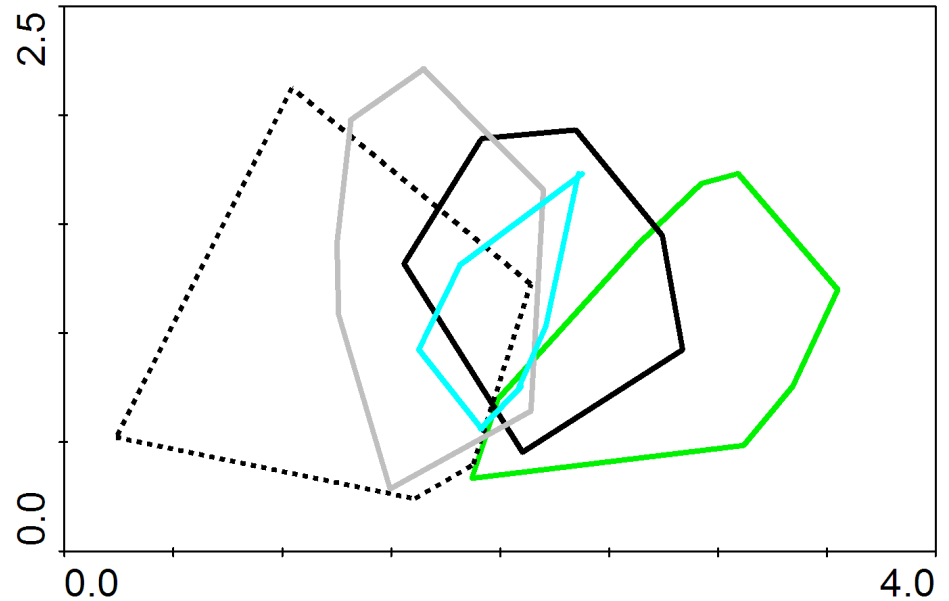
35 regrassed sites

23 permanent grasslands

+ 25 reference relevés
(Czech National
Phytosociological Database)

Monitoring

3 relevés per site, plots 5×5 m



restored grasslands:
2009 - 2014 - 2019
seed mixtures
permanent grasslands



Grassland re-creation

Regional seed mixtures as an effective tool for protecting the diversity of grassland habitats



Main goals

- finding suitable donor sites for seed collection
- comparing different seed collection methods – brush harvesters, green hay, threshing
- raising public interest in regional seed mixtures



Coordinating beneficiary:

CUNC

5 associated beneficiaries

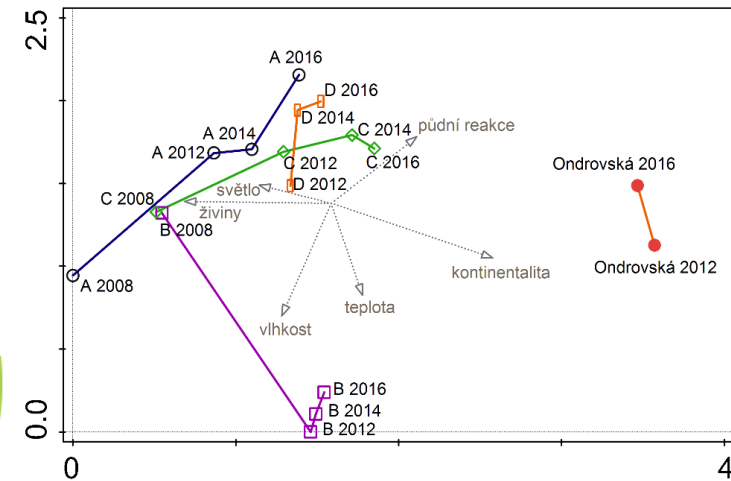
Period: 2022–2024

Restoration of alluvial meadows

Spontaneous succession
+ regular mowing

since 2009

restored area: 12 ha in total
vegetation relevés - 5×5 m



Restoration of sandy grasslands



Topsoil removal (2012–2015)

- 0.1–0.3 m deep
- 5 patches (c. 1 ha/yr)

Restored area: 4.7 ha in total

| target habitat | degraded habitat |
|----------------|------------------|
| 29 species | 14 species |



Vegetation relevés

- 5×5 m
- 45 plots – restored, degraded, reference



Restoration of sandy grasslands

Natural colonisation on scraped plots

1st year: 13



target species:
psammophilous

2nd year: 20



3rd year: 30



5th year: 37



Restoration of sandy grasslands



Military training ground
area 36.8 ha



Vojenské cvičiště Bzenec Nature Monument

Thank you for your attention

and many of my colleagues for cooperation

Credits:

VaV - SM/6/2/04

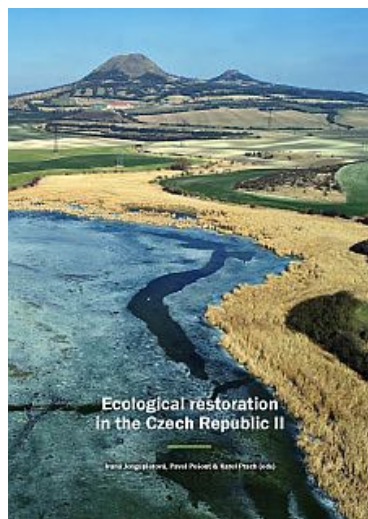
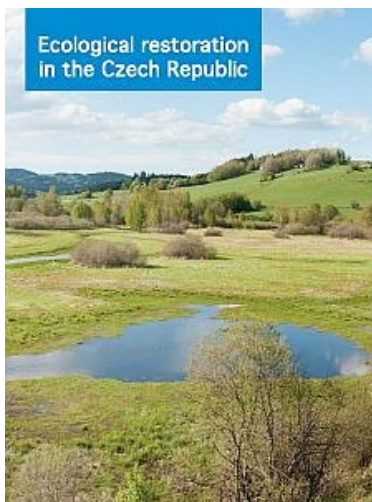
GAČR 31 - P504/10/0501

GAČR 20-08900S

LIFE16 NAT/CZ/000731

LIFE09 NAT/CZ/000364

EEA and Norway Grants 3211100009



← www.nature.cz/web/en/publications

