

Project Update: October 2017

Field research started on April 20th and finished on October 28th 2017. I established 25 plots in 12 steppe remnants (see the table). Initially, I have planned to establish 18 plots in nine localities. However, in practice, it was very difficult to find steppe remnants under similar conditions. Thus, the research was modified in each particular case. I selected additional three localities and set up seven more plots (10x10 m).

Table 1. Short characteristics of studied steppe remnants

| Size of patch, sq. km | Location | Coordinates | Number of plots | Disturbance |
|-----------------------|----------------------------------|-------------------------|-----------------|--|
| 0.001992 | "Brucheva" Naberazhne | 49.238847, 24.860621 | 1 | Current: forest overgrowing Past: grass harvesting and grazing |
| 0.00745 | "Hora Vynohrad" Tustan | 49.156700, 24.776235 | 2 | Current: pesticide contamination Past: grass harvesting and pesticide contamination |
| 0.01027 | "Kuopatnytskyi Kamin" Kuopatnyky | 49.286807, 24.669341 | 2 | Current: grass harvesting Past: grazing |
| 0.01068 | "Kamenelomnia" Khokhoniv | 49.233782, 24.846331 | 2 | Current: grazing Past: grazing |
| 0.14505 | "Hora Krasna" Stari Skomorokhy | 49.244151, 24.807748 | 3 | Current: pesticide contamination Past: grass harvesting and grazing |
| 0.01655 | "Simlyn" Yabluniv | 49.168022, 24.842044 | 2 | Current: grass harvesting Past: grazing |
| 0.0182 | "Field Island" Medukha | 49.165890, 24.830385 | 1 | Current: pesticide contamination Past: pesticide contamination |
| 0.01935 | "Hora Magsa" Vodnyky | 49.085198, 24.811627 | 1 | Current: no Past: grass harvesting and grazing |
| 0.10385 | "Horobtsevi Sinozhati" Podillya | 49.263366, 24.752426 | 2 | Current: grass harvesting Past: grass harvesting |

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|--------|--------------------------------------|-------------------------|----|--|
| 0.1096 | "Mezhyhirskiyi Kamin" Mezhyhircsi | 49.119015, 24.805071 | 4 | Current: no Past: grazing |
| 0.1619 | "Skelya" Podillya | 49.276354, 24.743691 | 2 | Current: grass harvesting Past: grass |
| 1.23 | "Kasova Hora" Burshtyn | 49.227117, 24.695675 | 6 | Current: grass harvesting Past: grass harvesting |
| | 12 | | 25 | |



Kasova Hora



Hora Krasna



Kuropatnytskyi Kamin



Skelya



Mezhyhirskiyi Kamin



Simlyn

Fig. 1. Selected steppe remnants of Burshtyn Opillya

In the field I collected studying material including soil coleoptera, environmental variables (e.g. vegetation composition, plants biomass and coverage, the soil temperature, humidity, acidity, humus contain and insolation). These variables will be used for final data analysis and planned monograph preparation.

At the present I am working on coleopteran species identification and species list preparation. Further, the estimation of biodiversity levels of soil Coleoptera for each studied steppe patch will be done. The data will be compared and statistically processed. As a result, I will estimate extinction rates of soil Coleoptera for implications for their restoration and conservation in the studied localities.



Meloe sp



Soil pitfall



Carabus cancellatus and Carabus scabriusculus



Soil samples for laboratory analysis



Collecting of environmental variables



Collecting of environmental variables



Expedition in summer



Expedition in autumn

Fig. 2. Field researches

During first 6 months of the project my colleagues and I prepared nine scientific justifications for steppe remnants conservation. We officially called to the local authorities, whose competence in decisions, for conservation of selected steppes sites. For this, we engaged local communities through NGOs, mass media, local authority and Halych National Park. On June 2nd 2017 in Rohatyn District Council, we organised a meeting with authorities, representatives of local communities and mass media for steppes conservation in the region of Burshtyn Opillya.

At the present, two Village Councils (Bovshiv village and Korostovychi village) agreed to establish conservation regime for two steppe remnants with total area 80 ha. Korostovychi Village Council decided to transfer under permanent management of Halych National Park site named "Kuropatnytskyi Kamin" (8 ha). However, Bovshiv Village Council decided to transfer 72 ha of "Kasova Hora" under co-management of Halych National Park and their own. Unfortunately, Ozeriany Village Council rejected our request for conservation of two steppe localities in total area 13 ha. Finally, Bilshivtsi Local Community Council is still considering the scientific justifications for conservation of 5 sites in total area 45 ha. These showed that improving of conservation programmes is needed.



Fig. 3. Meeting with authorities, representatives of local communities and mass media in Rohatyn District Council for steppes conservation in the region of Burshtyn Opillya (June, 2, 2017).