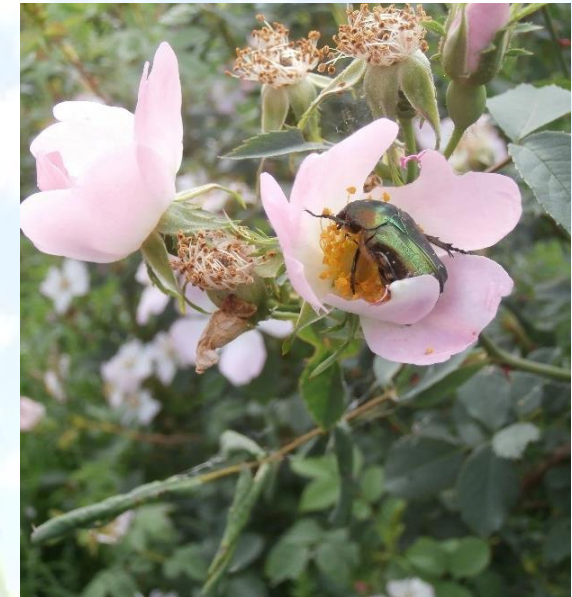
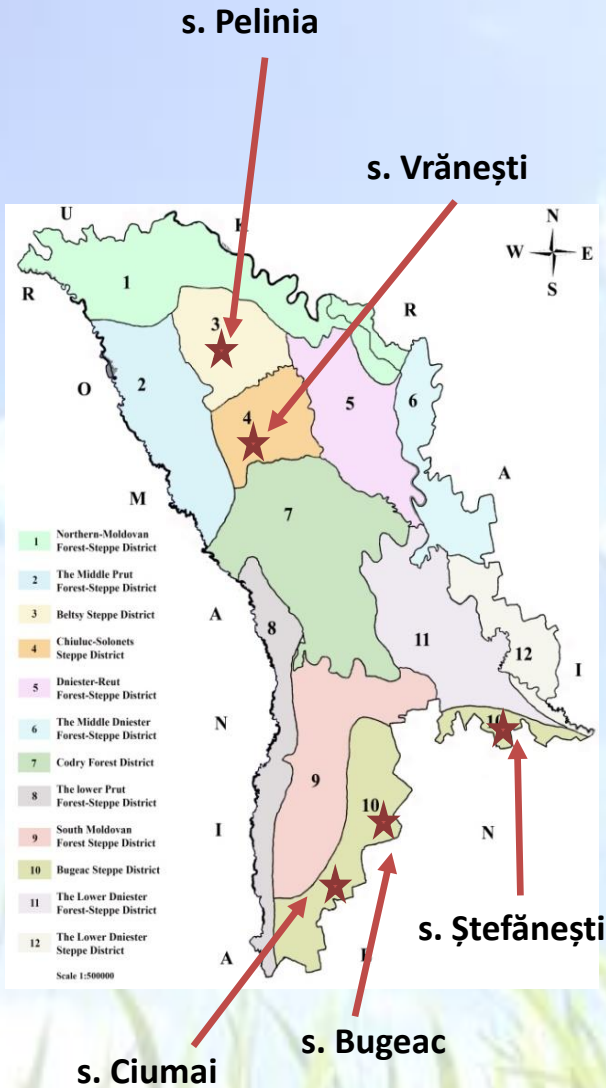


“Comunitățile de coleoptere și conservarea lor în regiunea de stepă a Republicii Moldova”



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Studiu realizat cu suportul financiar Rufford Small Grant, “Beetle Communities and their Conservation in Steppe Areas of Republic of Moldova”

Perioada de desfășurare :

august 2015 – august 2016

Scop:

Crearea unei imagini de ansamblu privind biodiversitatea ecosistemelor de stepă, structura, funcționarea și influența factorului uman asupra acestora.



Actualitate:

Stepele Republicii Moldova:

- ❖ fac parte din ecosistemul unic de stepă eurasiatică;
- ❖ cele mai mari biomuri terestre;
- ❖ furnizează servicii ecosistemice de neprețuit;
- ❖ majoritatea transformate în terenuri agricole (S. Bălțului) și pășuni (S. Bugeacului);
- ❖ ecosistemele de stepă sunt slab conectate la rețeaua de arii protejate, suferă din cauza poluării solului, epuizării, degradării ;

Insectele:

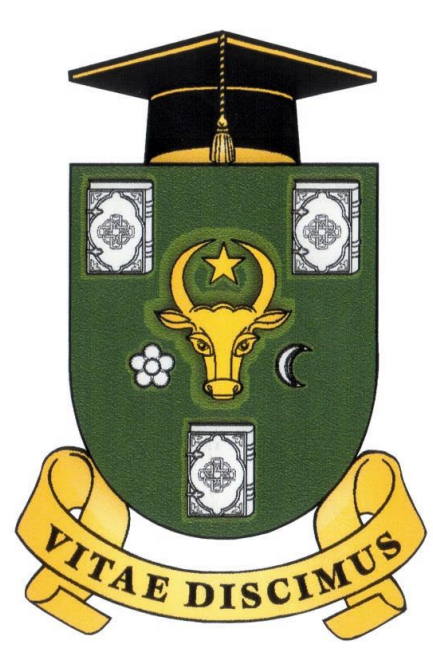
- ❖ joacă un rol-cheie în natură în calitate de polenizatori, contribuie la întreținerea și îmbunătățirea calității solului.
- ❖ sunt sensibile la variațiile componentelor de mediu;
- ❖ pot juca rol de bioindicatori;
- ❖ Împotriva coleopterelor dăunătoare se utilizează insecticide chimice care se acumulează în apă, sol, sunt cauza problemelor acute ce țin de protecția mediului și sănătatea omului.

Cercetările se aliniază **Strategiei naționale de dezvoltare agricolă și rurală pentru anii 2014-2020,**

prevede: *Activități agroalimentare existente în armonie cu mediul natural prin menținerea biodiversității, a valorilor culturale și tradiționale pentru generațiile viitoare.*

Atitudinea grijulie față de mediul înconjurător este garanția unei vieți sănătoase și este datoria fiecărui dintre noi!!!





DIVERSITY OF BEETLES (COLEOPTERA) IN STEPPE AREAS OF THE REPUBLIC OF MOLDOVA



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INTRODUCTION

Steppes in the Republic of Moldova are part of the unique Eurasian Steppe ecosystem being among the largest terrestrial biomes, supporting a rich flora and fauna, and providing invaluable ecosystem services. The northern types of steppes (Balti) are particularly affected by cultivation; dry southern steppes (Bugeac) are significantly transformed as a result of overgrazing, many steppe areas also suffer from soil pollution, depletion, degradation and decreasing of humus level. Insect communities of the Republic of Moldova steppes are understudied, therefore, complex investigation of beetles diversity in steppe areas is required.

MATERIALS AND METHODS

In order to create a view on insect biodiversity and composition, structure, and functioning of insect communities, coleopterans were selected as potential indicators of biodiversity. Specimen capture was carried out using pitfall traps. Sampling took place every ten days, with a few exceptions due to unforeseeable circumstances. The trap was made of a 700 cm³ recipient, installed at the soil level and filled with 4% formaldehyde solution. Recovered specimens from each plot were kept into a cloth bag and counted in the laboratory.

RESULTS AND DISCUSSION

A total number of 560 beetles, stored to 98 species from 51 genera and 15 families, are considered in this analysis. The largest family proved to be Carabidae, which includes 51 species from 19 genera, followed by Curculionidae, with 9 species from 6 genera. Also, from all collected beetles, ground beetles represented the greatest proportion in terms of number of individuals (366 specimens), followed by darkling beetles with 50 specimens. Weevils were represented by 30 individuals. The most abundant species were *Calathus fuscipes* (Goeze 1777), *Harpalus hospes* Sturm 1818, *Pseudoophonus rufipes* (De Geer 1774), *Ophonus azureus* (Fabricius 1775), *Opatrum sabulosum* (Linnaeus 1761), *Lathrobium brunnipes* (Fabricius 1793), *Harpalus pygmaeus* Dejean 1829 and *Zabrus tenebrioides* (Goeze 1777).

CONCLUSIONS

Obtained results will provide information on entire biodiversity richness, condition and the protection necessity promoting the conservation of steppes areas in the Republic of Moldova.

ACKNOWLEDGMENT

This work was funded by the research project *Beetle Communities and their Conservation in Steppe Areas of Republic of Moldova*

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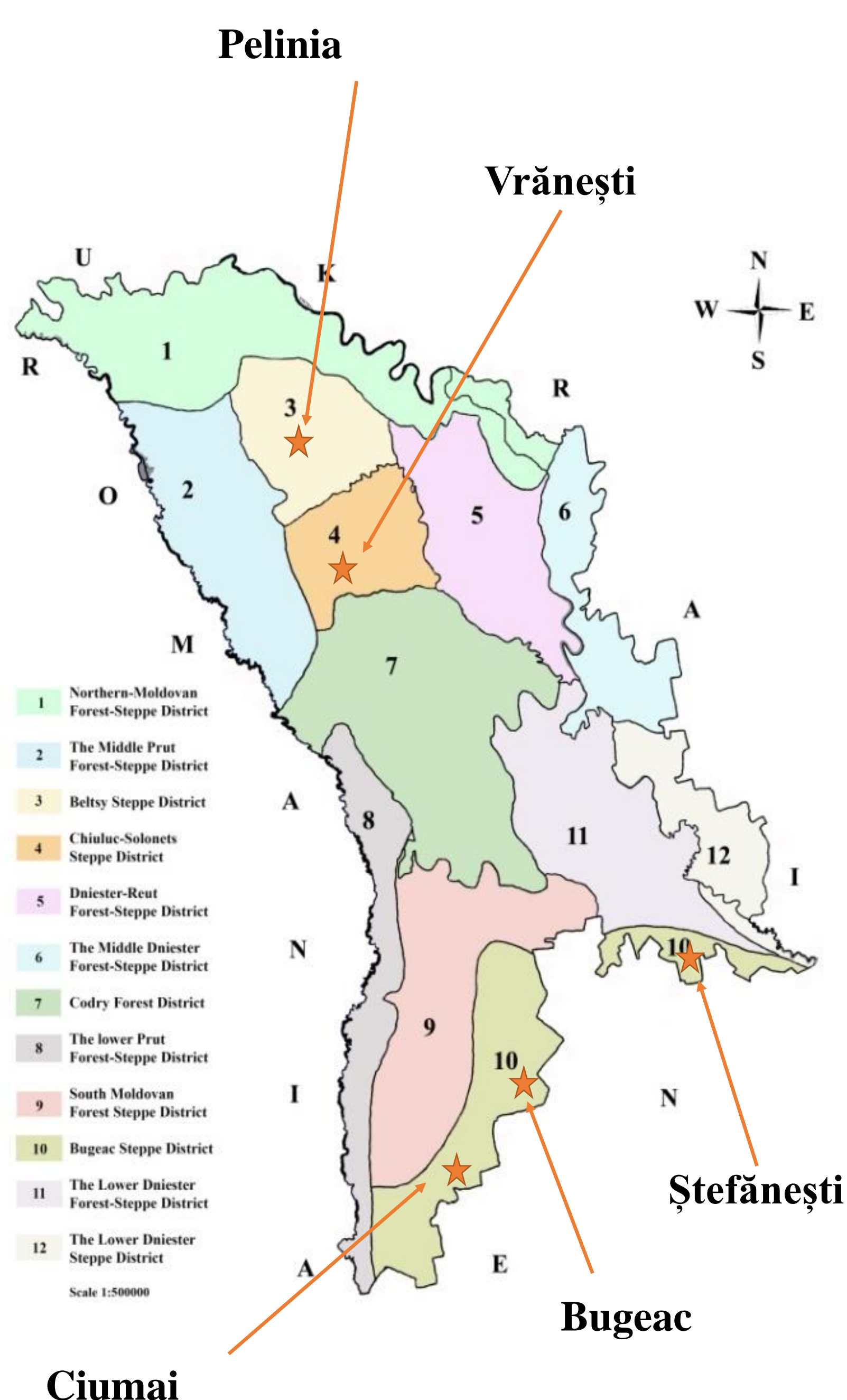
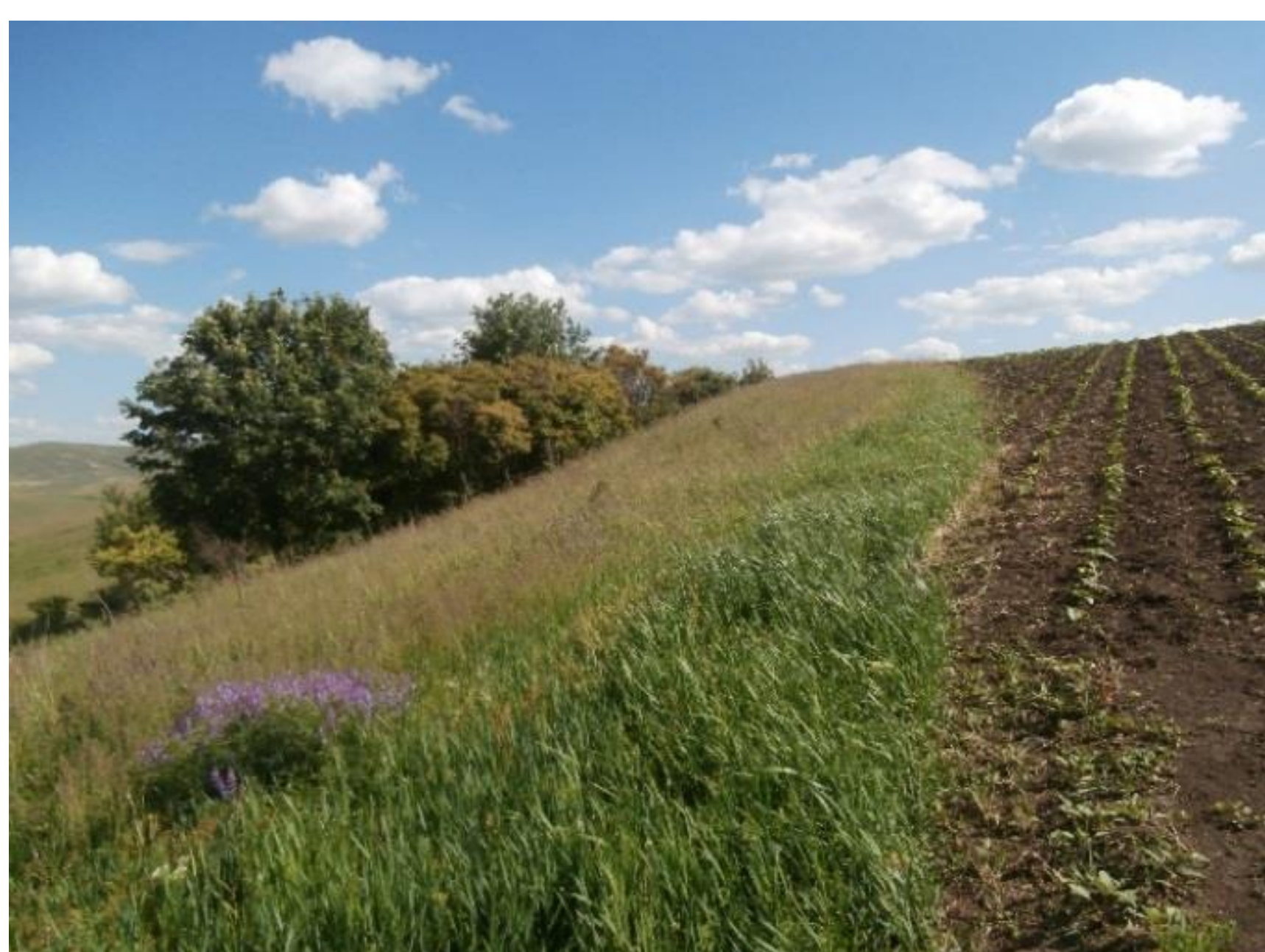
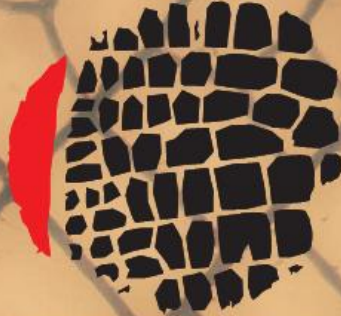


Fig. 1. Sampling localities



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Diversity of beetles (Coleoptera) in steppe areas of the Republic of Moldova

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Key words: beetles, Coleoptera, fauna, diversity, steppe, Republic of Moldova.

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