

Project Update: June 2016

The project «Status and Structure of Populations of Rare Arctic-Alpine Plant Species in Highland Ecosystems of Ukrainian Carpathians» successfully developed. In the first step we bought field and technical equipment to realize our research: soil moisture meter, soil pH and temperature meter, GPS navigator, photo camera, solar panel and others. Before starting the expedition, we have identified areas and localities of distribution of rare arctic-alpine plant species populations, using data from scientific materials (articles, herbariums, red lists, and thesis). During the preparatory phase I prepared a short publication "Regeneration niche of the populations of rare arctic-alpine species of plants in Chornohora" for the conference "Regional aspects of researches of flora and fauna" which was held on 13-14 of May in the National Nature Park «Cheremosky» in Putyla. I also organized the cooperation between the department of biology and ecology of the Vasyl Stefanyk Precarpathian National University and department of population ecology of the Institute of Ecology of Carpathians (National Academy of Sciences of Ukraine).

As a part of this collaboration I organized practice for students of Precarpathian National University (ecologists and biologists of the first and second years of study) on the highland biological station "Pozyzevska" of Institute of Ecology of Carpathians in Chornohora mts. I briefed students on this field practice with methods of environmental research, with features of the high mountain ecosystems of the Ukrainian Carpathians, with ecological characteristics of the habitats of populations of rare arctic-alpine species. We fixed GPS coordinates, we conducted measurements of the PH and moisture of the soil, and we researched structure of populations in some habitats of rare arctic-alpine species of plants in the north-western part of Chornohora during our fieldwork. We analyzed the studied parameters for natural conditions and under anthropogenic pressure. During the first expeditions with students we have implemented our educational objectives and got a scientific data, we clarified distribution of rare arctic-alpine species populations, we fixed revealed species and progress of our work on the photo. The next expeditions will be made with smaller research groups to investigate new habitats and populations of species in other highland regions of Ukrainian Carpathians.



Highland Biological Station "Pozyzevska" of Institute of Ecology of Carpathians, National Academy of Sciences of Ukraine (below); Snow, Avalanche and Weather Research station "Pozyzevska" (above).



Students get acquainted with the history of scientific activities on the Highlands Biological Station "Pozyzevska".



Fieldworks with students in highland ecosystems of the Ukrainian Carpathians.



Measuring the PH of the soil in the habitats of the rare arctic-alpine species of plants.



Measuring the moisture of the soil in the habitats of the rare arctic-alpine species of plants.



Research abiotic factors in alpine ecosystems of Chornohora mts. (Ukrainian Carpathians).



Fixing GPS coordinates for populations of the rare arctic-alpine species of plants.



Bartsia alpina L.



Anemone narcissiflora L.



Rhodiola rosea L.



Loiseleuria procumbens (L.) Desv.



The impact of trampling on the population of *Loiseleuria procumbens* (L.) Desv.



Habitats of the rare arctic-alpine species of plants in Ukrainian Carpathians.



Accounting of individuals in populations of high mountains species of plants in Chornohora mts.



The investigation of the ecological characteristics of populations of rare species in highland ecosystems of Chornohora mts.



Snow on the top of mountains - a typical phenomenon in June in the highlands of Ukrainian Carpathians



Rock plant communities - suitable habitats for populations of the rare arctic-alpine species of plants.



Measuring PH and moisture of the soil in the habitats of rare arctic-alpine species of plants.



The path through the population of *Loiseleuria procumbens* (L.) Desv.



The impact of trampling on population of the rare arctic-alpine species of plants.



Saussurea alpina (L.) DC.



Saussurea alpina (L.) DC.



Cerastium lanatum Lam.



Cerastium lanatum Lam.

