

Biological and Ecological Features and Status of Cenopopulation of the Highlands of the Smaller Caucasus

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Aim of the study: The purpose of current study was to investigate biological and ecological features and status of cenopopulation of 4 rare turf and rhizomatous grains in different ecological coenotic conditions of the North-Eastern part of the Smaller Caucasus.

Material and methods. In 2011-2014 the studies were carried out in Dashkasan district, mountain system Goshgar, the massif Khoshbulag, in Goygol region, the mountain massif Kapaz and at the sloping hillsides of Togana and Chaykendi. The geobotanical description was carried out in order to determine the character of species's distribution in the study area. Researches have been implemented by stationary and route methods. Stationary researches have been carried out in the sample areas of 100 square meters. The geographical position which the species are encountered, the end conditions (relief, slope, etc) are shown in the description of sample areas. The physical condition of the end place and the full floristic list was compiled. The abundance of the area where the species are encountered is marked with a scale of Durudue. The project cover of the populations is estimated according to Kaptan. The structure of the cenopopulation of studied species have been carried out by accepted methods: ability to sprout germination- C, juvenil-y, immature-im, virginil-v and o. The subject of our study was *Agrostis planifolia* C. Koch., *Ag.lazica* Balansa, *Alopecurus laguroides* Ball, *Al.vaginat* (Willd) Palld. Ex Kunth.

Results: As the results of the studies it was discovered that cenopopulation of species has 4 age periods (latent, virginile, generative, senile) and 9 age ontogenetic states (seedlings, juvenile, immature (except *Ag.lazica*), virginile, generative-young, middle-aged, old generative; subsenile; senile. The complete life cycle, quantity and age composition of cenopopulation was studied in 10 plant associations with different conditions of economic use of pastures. The vitality of separate species was revealed, the ecological optimum, biometric indicators of the structure were defined depending on the type of association, strategy, morphological and biological diversity of species in cenopopulation, as well as bio-ecology, seed and vegetative renewal of communities. It was found that the age composition of cenopopulation of the studied species varied and was associated with biological features of species, botanical composition of herbage, nature of the terrain, altitude, environmental conditions for years and economic use of pastures. The taxonomic status of the systematic position, the distribution area of the investigated species was established as well. Based on phylogenetic analysis, the morphological and biological diversity of species was revealed, the diagnosis of developmental conditions were developed and the main types of developmental cenopopulation spectra were determined.

Key words: Phylogenetic analysis, species, geographical position, North-Eastern part, associations.