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Chapter 5: Habitats of *Allium* Species in Georgia

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Abstract

Habitat types are determined for 26 wild *Allium* species distributed in Georgia. The number of species occurring in a concrete biome is estimated. *Allium* species occur mainly in semi-desert vegetation (3 species), Shibliak (9) Tragacanthic community (6), yellow blue-stem grass (*Bothriochloa ischaemum*) community (3), pine forests (4), dry rock-scrub habitats (6), alpine rock-scrub habitats (5), oak forests (1), riparian forests (1), subalpine krummholz (1), tall herbaceous vegetation (1), subalpine shrubland (1), subalpine meadows (6) and alpine meadows (3). Some species are restricted only to one biome, others occur in different habitats. Three groups of species were determined on the base of their distribution pattern: 1. species of dry habitats - *A. albidum*, *A. leucanthum*, *A. moschatum*, *A. paczoskianum*, *A. atroviolaceum*, *A. flavum* subsp. *tauricum*, *A. fuscoviolaceum*, *A. globosum*, *A. gramineum*, *A. ponticum*, *A. pseudoflavum*, *A. rotundum*, *A. rubellum*, *A. rupestre*, *A. saxatile*; 2. species of humid habitats - *A. paradoxum*, *A. ursinum*, *A. schoenoprasum*; 3. species of alpine habitats - *A. albovianum*, *A. aucheri*, *A. erubescens*, *A. karsianum*, *A. kunthianum*, *A. pseudostrictum*, *A. subvineale*, *A. victorialis*.

Key words: Allium, habitat, biome, Georgia

Introduction

Georgia is located in the South Caucasus and includes the steep southern slopes of the Greater Caucasus range in the north, the mountain region of Lesser Caucasus in the south, and several valleys located between two mountain systems. The territory covers an area of 69 700 km² [12] and is stretched between the Black Sea in the west towards the Caspian Sea in the east, Russia in the north and Turkey in the south. It presents a great variety of widely contrasting land forms, which occur in close proximity and range from subtropical forests to dry desert-steppes from the Black Sea to the east.

Different vegetation types occurring in Georgia are changing from the west to the east depending on precipitation, which varies from 4000 mm (annual precipitation) in the Black Sea coast to 400 mm in the most eastern part of Georgia adjoining to Azerbaijan [11]. The north-south stretched Surami Range in Central Georgia represents the barrier for the warm sea winds and causes these differences in precipitation character and vegetation types. Therefore both humid and arid zones occur [7].

Another peculiarity giving rise to high biodiversity in Georgia is the oreographic character. High mountains in both the Greater and Lesser Caucasus enable the occurrence of different belts from sea to snow levels. The main range of the Greater Caucasus is 3600 m high and represents the watershed between North and South Caucasus [12]. The highest peaks Shkhara (5068 m) and Kazbegi (5047 m) are located on northern range of the Great Caucasus. The gradual northern slopes and the abrupt southern side branch off into lateral mountain ranges,