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Article



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TRANSFORMATION AND CURRENT ECOLOGICAL STATUS OF PLANT TYPES SPREAD IN THE UPPER MOUNTAIN REGION OF AHANGARAN BASIN

Abstract: This article describes 5 types of plant species distributed in the mountainous region of the Ahangaran River Basin and their ecological status. We describe the monitoring sites according to the life forms of the listed plants. Information on the distribution patterns of these plants is also given.

Key words: geobotany, region, ballad mountain, pasture, plant types, monitoring areas, map, plant composition, plant species boundary.

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Introduction

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Today, modern florist research in the world, especially the identification of the taxonomic diversity of regions with a rich composition of specific endemic and relict species using modern methods of scientific research, requires the study of the genesis of flora and the centers of formation of endemic fractions. The botanical and geographical region of the Ahangaran River basin is no exception. A high degree of taxonomic diversity, the richness of rare, endemic and relict species characterized this region. Determining the composition of its flora, defining its boundaries as a botanical-geographical region, assessing the current

state of populations of rare and endangered species, creating an electronic database of flora plays an important scientific and practical role in revealing the peculiarities of the national flora of Uzbekistan [9].

In the Ahangaran basin, there are all regions of Uzbekistan: deserts, hills, mountains and pastures, each of which has its own vegetation cover. Many botanists have studied the plant species of the pasture region since ancient times and given different definitions and classifications. We can find this information in many publications. V.P.Drobov, 1956; S.E.Korovin, 1959, 1963; E.P. Korovin, 1962; G.T.Sidorenko, 1953; E.M. Demurina, 1972, 1975, 1976; A.Ya.Butkov, 1969; Z.A.Maylun, 1984, 2002; N.I.Akjigitova, 1984, 2002; U.Allanazorova,

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T.Rakhimova, K.Tajiboev, 2002, O.Kh. Khojimatov, R.W. Bussmann, D.T. Khamraeva, 2021, and others [4,5,6,7,10].

In the literature listed above, different descriptions and descriptions of plant species distributed in the high mountain-pasture region have been given.

A.Ya. Butkov showed that in the pasture zone of the Chirchik-Ahangaran basins from the watershed of the Chatkal and Qurama mountains there are 5 types of vegetation: mountain umbellarias, mountain grasslands, carpet quality grasslands, mountain meadows and tragacanth [2,5,6].

We have also found most of the plant species listed above in the Ahangaran Basin pasture region. 65 species were recorded at the monitoring sites and grouped according to their life forms. We found that their distribution limits, composition, and structure have changed to varying degrees because of desertification under the influence of many anthropogenic factors [1,3,8].

In the compiled 'Plants' map, it showed the areas affected by the crisis in indices (A.B.C.).

Almost as many anthropogenic factors in the Ahangaran Basin: large geological quarries, roads, reservoirs, the impact of plants, tree-shrub cutting, unplanned harvesting of medicinal and medicinal plants and haymaking all lead to a crisis of vegetation.

The studied basin pasture zone is one of the most common plant communities in the vegetation: prangos, ferula, festuca, high mountainous densely covered meadows, mountain meadows and tragacantha – acantholimon meadow, the distribution patterns of which are shown on the map "Plants".

In the high mountain-pasture region, 7 plant species have been identified.

- Wetlands (sazy) - Sasophyta.
- Densely covered low-lying meadows - Cryonanopoa.
- High mountainous or subalpine meadows - Cryomesopoa.
- Highly mountainous cryoxeromesophilic semi-shrubs- Cryoxeromesohemithanisca.
- High mountainous xerophylic or tragacantha - Cryofriganophyta.
- High mountainous turf steppe - Cryoxeropoa.

-Mountain high meadows - Theropoa.

Of these types, the most common in the basin are high mountain grasslands and tall grasslands, which form the main pasture lands. Among the plant communities found in the high mountain region, the following can be shown. Tragacantha-acantholimon (*Acantholimon korolkovii*, *Lagotis korolkovii*, *Geranium regelii*, *Astragalus lasiosemius*). Festuca-mixed grass-acantholimon meadows (*Acantholimon korolkovii*, *Cousinia bonvolotii*, *Poa relaxa*, *Puccinella subspicata*, *Artemisia lexmänniana*, *Festuca valesiaca*) in some places along the springs along the low-lying alpine meadows mixed (*Polygonum hyssaricum*, *Puccinella subspicata*, *Geranium regelii*). Ligularia-ferula (*Ferula tenuisecta*, *Ligularia alpigena*) mixed with low-lying Alpine meadows (*Carex orbicularis*, *Allium monadelphum*, *Ranunculus rufosepalus*, *Poa relaxa*) in the wetlands around the spring. - Mixed grass-ferula-prangos (*Prangos pabularia*, *Ferula tenuisecta*, *Poa relaxa*, *Thermopsis dolichocarpa*, *Srachyopsis oblongata*, *Potentilla desertorum*, *Ligularia alpigena*). Mixed grass-artemisia-prangos (*Festuca valesiaca*, *Aremisia lehmanniana*, *Arenaria griffithii*, *Geranium collinum*, *Cousinia angrenii*, *C.bonvolotii*) in some places acantholimon herb mixture (*Acantholimon korolkovii*, *Ligularia thomsonii*, *Ranunculus rubrocalyx*). Lagotis-in some places ligularia mix-prangos (*Festuca valesiaca*, *Lagotis korolkovii*, *Ligularia thomsonii*, *L.aipigena*, *Polygonum hissaricum*). Mixed and spiked grasses (*Polygonum hissaricum*, *Festuca valesiaca*, *Puccinella subspicata*, *Geranium regelii*). Prangos-acantholimon herb-thorn-cushion (*Onobrychis echidna*, *Acantholimon korolkovii*, *Festuca valesiaca*).

We divided the Ahangaran Basin into a single independent area, the most pressing issue today is to determine the patterns of distribution of its vegetation cover by regions, typological structure, phylogenetic diversity and stratification, and types of anthropogenic factors.

The occurrence of 7 plant species in the pasture zone of the studied basin and their phylogenetic diversity were studied and evaluated on a combination of traditional geobotanical and mapping methods.

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