



TULIPA FERGANIC AND T.TURKESTANICA TYPES OF TULIPS IN THE CONDITIONS OF ANDIZHAN AND IT'S NEAR TERRITORIES

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ABSTRACT

Information on the current status of the species *Tulipa ferganica*, *Tulipa turkestanica* in the territory of Andijan, ie spreading area, ecological conditions, scale of anthropogenic impact, morphological and phenological features and protection measures is provided.

KEY WORDS: *Andijan city, species, Tulipa ferganica, Tulipa turkestanica, area, ecology, anthropogenic, conservation, morphology, phenology.*

DISCUSSION

In the last years of the twentieth century, the problem of biodiversity conservation has become one of the global problems in the world community due to its environmental and economic aspects due to the negative attitude of mankind to nature. In 1995, Uzbekistan was one of the first to accede to the UN Convention on Biological Diversity [6].

Today, the use of natural landscapes for agricultural crops, recreational purposes, regular grazing of livestock without taking into account the natural potential of pastures, as well as unplanned harvesting of medicinal plants are the main factors causing genetic erosion of biodiversity[8,12,14].

The Ancestor (class) of tulips **Liliopsida (Monocotyledones)**, which is widespread in the territory of the Republic and distinctive among plants by its specificity, includes about 6,300 species belonging to 4 ancestors, 37 tribes, 104 families, and 300 genera, and the above genetic erosion is a class that is affected and most of which is disappearing[1,2].

The seeds are 1, mostly 1 year old grasses. There are also trees like palms. Root buds, leaves parallel, cambium undeveloped, no secondary thickening. The flower is simple, arranged in two circles of 3[3,4].

A small ancestor of Liliaceae, a family of tulips Liliaceae. This

family includes mainly onion herbaceous plants. Their leaves are long, linear, sometimes elliptical. The flowers are large or small, single or multiple, bisexual, actinomorphic, the pollen is located in two circles of 6 and 3, the seed is formed by the addition of 1, 3 petals. The flower formula - $P_{3+3} A_{3+3} G_{(3)}$ The fruit is pod. This family includes 10 genera and about 470 species. They are common in temperate and subtropical regions of the Northern Hemisphere, especially in Western Asia, the Himalayas, and East Asia. There are 5 genera and about 120 species in Central Asia, 4 classes (Gagea, Fritlaria, Tulipa, Rhinopetalum) and 52 species in Uzbekistan[5,7,9].

It is known that the intensification of anthropogenic factors leads to a change or disappearance of the natural vegetation cover of a particular place, in many cases the formation of new plant communities that are not specific to that place.

The Fergana Valley is a leader in Uzbekistan in terms of the strong impact of anthropogenic factors on nature. Therefore, to study the current state of cenopopulations of rare and endangered species in the valley, to classify them according to the classification of the International Union for Conservation of Nature (Ai - list of rare species IUCN, Aii - species listed in paragraphs 0.1 and 2 of the Red Data Book of Uzbekistan, Aiii - Fergana Valley Aiv - endemic to the mountains of Central Asia), and to show that this place is enriched with



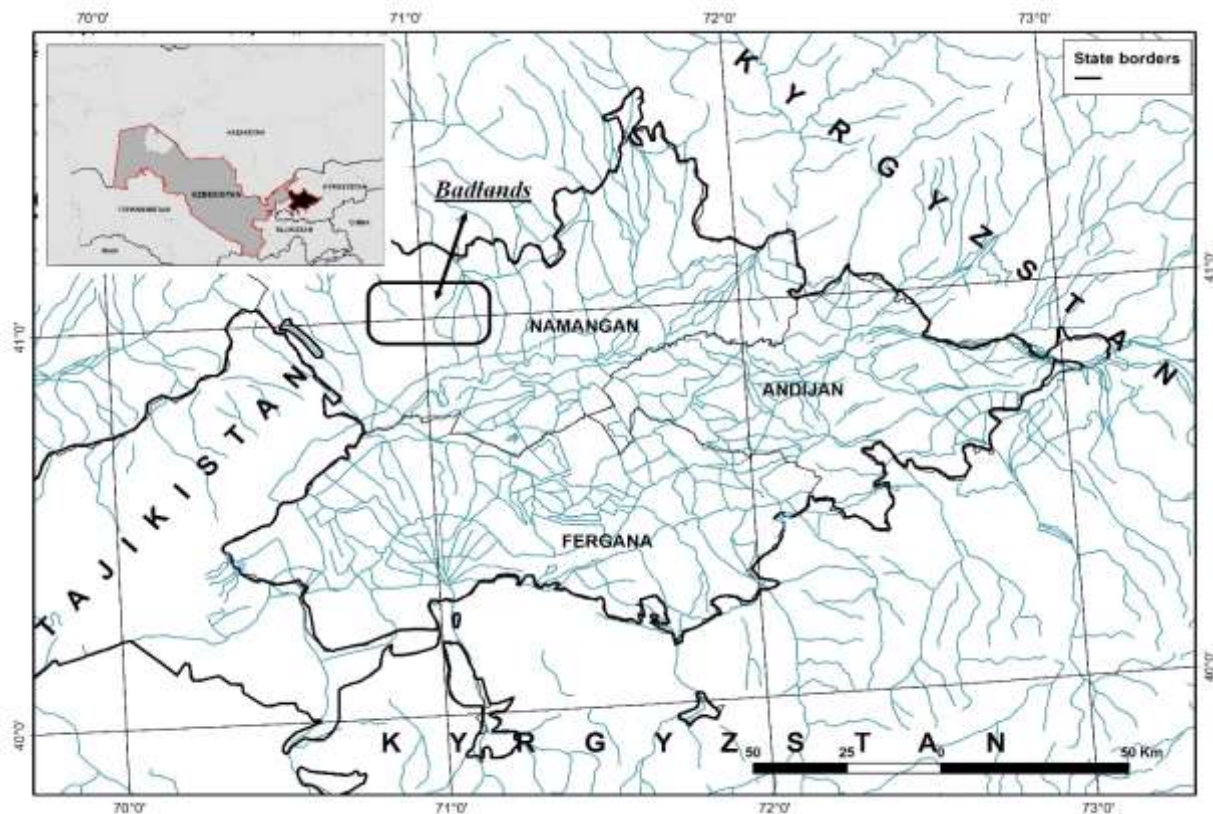
new species is one of the urgent tasks today[10,11,13].

In this regard, the Fergana Valley is a unique region rich in endemic and rare plant species. These species are included in the Red Book of Uzbekistan (1996, 2006, 2009) and are listed separately (Nabiev, 1959; Arifkhanova, 1967; Prатов, 1970; Tadjibaev 2002, 2010 and others). The **Tulipa L.** family, which occupies a special place among these rare plant species, is a rare, endemic, endangered species, and more than 80% of its species are listed in the Red Book, so their study and study is the first issue. The fact that tulips in the Fergana Valley, which are currently being studied, make up one-third of all tulips in Uzbekistan and the fact that more than 85% of them are included in the Red Book of Uzbekistan, which has recently decreased due to the influence of zoogenic and anthropogenic factors requires them to be studied again and again on the basis of research. 10 representatives of the Tulipa L family grow in the Fergana Valley. A complete list of them has now been compiled[15,16].

Currently, this figure is 38.4% of the total number of tulips in Uzbekistan. Unfortunately, under

the influence of natural environmental factors, the range of these species is declining. Recreation zones have been established in some areas where tulips grow, and the influence of anthropogenic factors is also high.

The growth of the following species has been identified today in the following places: In the Fergana Valley: (Fergana ridge, Turkestan, Alay, Imam ota, Bogishamol-Harabek hills, in the city part of Bogishamol hills): *Tulipa ferganica*, *Tulipa turkestanica*, *Tulipa scharipovii*, *Tulipa dubia*, *Tulipa bifloriformis*, *Tulipa greigii*, *Tulipa kaufmaniana*, *Tulipa vvedenskyii*, *Tulipa talassica*, *Tulipa intermedia*) in the territory of Andijan region, the ones consisting of partly hilly and mountainous areas, species belonging to the genus Tulipa: (*Tulipa ferganica*, *Tulipa turkestanica*). It makes up 20.5% of all species in the Fergana Valley. The species *Tulipa ferganica*, spread in the city of Andijan, belongs to the category of endemic to the Fergana Valley (Aiii - endemic to the Fergana Valley) and is not found in other regions, listed in the Red Data Book of Uzbekistan (1996, 2006, 2009).



The spreading areas of tulips in Andijan are mainly close to settlements and are considered recreational areas, so they require timely protection. Problems related to the identification of growth points, study of ecology and phenology of many species spread in the region are being addressed positively today. Among the tasks related to the study

of biological areas of special importance, the study of areas where tulip groups are spread is included as the first issue. The result of the research is that in the territory of Andijan region, in particular in the city of Andijan, 2 species belonging to the genus **Tulipa** were found and studied in detail. (Table 1. There is a



complete list and morphological features of tulips spread in the territory of Andijan region).

Table 1.**Complete list and morphological features of tulips spread in the territory of Andijan city**

<i>Parts</i>	<i>Eriostemones section</i>	<i>Leistomonos section</i>
<i>Name of species</i>	<i>Tulipa turkestanica</i>	<i>Tulipa ferganica</i>
<i>Stalk</i>	10-25 cm, brownish-green, the upper part is finely pubescent	(5) -10-40 cm. The brown-green top is smooth without pubescence
<i>Onion</i>	Ovoid, 2cm, dark brown, the inner side of the tip covered with thick pubescence.	ovoid, (1) -1.5-3cm, coating chaffs are dark brown, hard leathery, upper and lower on the inside, parts covered with flat pubescence
<i>Leaves</i>	2-3, in some up to 4, open, arched, 5-23 mm wide, bluish-green	3 open, large, curly, covered with ciliated pubescence, lower leaves up to 16 cm long and 6.7 cm wide.
<i>Flowers</i>	1-7, white bottom yellow, powdery threads yellow, expanded base thick pubescent.	1, 2.5-6.5 cm, with blue-pink threads on the yellow surface, the strip of pollen is yellowish-yellow, the pollen is orange.
<i>Pods</i>	White-straw color, size 3 cm, width up to 1.8 cm, both ends and the bottom is slightly sharper.	Dull gray straw-yellow, elongated, ovoid
<i>Seeds</i>	Brown, large, up to 0.7 cm in size and 0.5 cm wide, round-triangular in shape, large	Dark brown, curved, triangular, 0.9 cm long and 0.35 cm wide.
<i>Place of spreading</i>	In all the mountains and hills of the Pamir-Alay and Western Tien-Shan	Fergana region (Alay and Turkestan ridges - Vodil, Shohimardon), Andijan region (Imamota, Bogishamol, Khrabek).
<i>Phenology</i>	It blooms in March-April and bears fruit in May-June	It blooms in April and bears fruit in April-May.
<i>Ecology</i>	It grows from the foothills to the middle, on the loamy and rocky slopes of the hills	A rocky fine-grained slope at the bottom and top of the mountains.

These species grow in rocky, gravelly fertile soils, mainly in the middle and upper parts of the Alay and Turkestan ridges of Andijan region, Imam Bogishamol, Harabek hills (d.s.400-2100m). In areas where the species is endemic, the impact of anthropogenic factors is high today, and the problem of conservation is paramount. As a result of unregulated grazing, the range is declining. With the onset of the phenological period in Lolos, the possibility of plant populations being limited is being limited as the grazing season for cattle grazing in the mountains and hills is going on in parallel. Reproductive function increases by 50% when tulips complete the seed-forming period. Given the situation, it would be expedient for the regional nature protection to unite with other organizations to strengthen conservation measures, and in cooperation with television to make videos about the current situation in the tulip growing areas, the scope of human impact on them. In addition, taking into account the development of ecotourism in these areas, it is advisable to install information boards on the protection of tulips. The first task we are faced with is to preserve the species *Tulipa ferganica* and *Tulipa turkestanica* in their present state, to expand the point of distribution, and to leave them without

adverse effects on future generations. To create new cultural varieties of tulips, a natural gene pool is always necessary.

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