

TAXONOMICON

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There are 6 natural monuments in the Fergana Valley, which have not been studied floristically. Only the flora of Yozyovon natural monument has been partially studied (Rozimatov, Hamidov 2022). The study of the composition of the flora of the Akbarabad monument, the analysis of rare and endemic species is the first study aimed at studying the flora of the natural monuments of the Fergana Valley.

According to the decision of the governor of the Akbarabad natural monument of Kuva district on May 14, 2003, the district "M. Sherbutaev", dunes on the territory of "Navoi" and "Dehkanabad" farms with a total area of 39.5 ha have been granted the status of a protected natural area. This natural monument is a unique, irreplaceable, scientific and ecologically valuable natural object consisting of sand dunes (fig. 1). The relief is generally from dune; the absolute heights of the area are 150 to 360 m a.s.l].

The Akbarabad natural monument boasts three discrete sand dunes that are positioned at a considerable distance from one another. Taking this into account, we divided this natural monument into areas I (coordinates N 40.517189, E 71.978114), II (coordinates N 40.525083, E 71.955459), and III (coordinates N 40.3130, E 71.5813). However, in general, the species composition is similar.



For the first time, about 600 herbarium specimens were collected from the Akbarabad

natural monument during field research conducted in 2022–2023. All herbarium specimens are stored in the herbarium funds of the National Herbarium of Uzbekistan (TASH) and the Kokand State Pedagogical Institute (KD). The "Flora of Uzbekistan" (1941–1962, 2017–2023), "Conspectus Florae Asiae Mediae" – and Global Biodiversity Information Facility (GBIF, Ruzimatov, Alieva 2024), Plants of the World Online (POWO 2024) databases were used to identify the species.

Flora of vascular plants in the Akbarabad natural monument amounts to 147 species and subspecies of vascular plants belonging to 35 families and 110 genera. The analysis of family and species diversity of the natural monument's flora showed that in the head parts of the spectre steadily located are the families: Asteraceae (26 species or 17% of the total number of species), Poaceae (25 species or 17 %), Amaranthaceae (17 species or 12%) (table 1).

The most common shrubs, perennial and annual species of the natural monument are: *Agriophyllum minus* Fisch. & C.A.Mey. ex Fenzl, *Abutilon theophrasti* Medik., *Asperugo procumbens* L., *Callipeltis cucullaris* (L.) DC., *Caragana halodendron* (Pall.) Dum.Cours., *Calystegia sepium* (L.) R. Br., *Chenopodium album* L., *Convolvulus arvensis* L. etc.

Table 1 – The spectrum of leading families and genera in the flora of the Akbarabad natural monument

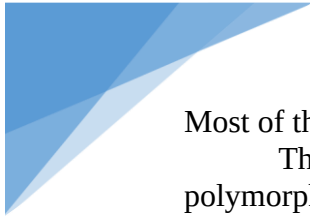
№	Family	Quantity of species	Genera	Quantity of species
1	Asteraceae	26	<i>Astragalus</i>	6
2	Poaceae	25	<i>Artemisia</i>	4
3	Amaranthaceae	17	<i>Bromus</i>	4
4	Fabaceae	13	<i>Tamarix</i>	4
5	Brassicaceae	7	<i>Amaranthus</i>	3
6	Polygonaceae	7	<i>Calligonum</i>	3

1 species of rare and endangered species of vascular plant, included in the Red Data Book of Uzbekistan (Khassanov, 2019), grow in the Akbarabad Natural Monument: *Astragalus rubellus* Gontsch. (figure 1). This species is found in the Akbarabad natural monument, where three populations of the plant have been identified.



Fig. 2 – *Astragalus rubellus* Gontsch.
(Akbarabad natural monument (I), Ruzimatov, 2023)

The flora of the Akbarabad natural monument despite its small area, is characterized by a fairly small biodiversity and includes 147 species of preliminary checklist of vascular plants.



Most of the species distributed in the natural monument include typical psammophyte species.

The work was carried out within the framework of the state grant "Taxonomic revision of polymorphic plant families of the flora of Uzbekistan" (FZ-20200929321) and the state program "Grid mapping of the flora of Uzbekistan" for 2021-2025.

Reference

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