



Representatives of the Lamiaceae Family Included in the Red Book of the Republic of Uzbekistan in the Flora of the Kughitang Biogeographic Region

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Annotation: This article contains information about the plants of the Lamiaceae family included in the Red Book of the Republic of Uzbekistan in the flora of Kughitang botanical-geographic region. The red book includes 30 species of representatives of Lamiaceae family, of which 5 species are distributed in Kughitang. The distribution areas of species are given in the form of a table and a map and their phenology is presented.

Keywords: Endem, rare plant, red book, specimen, reserve, kughitang botanical-geographic region.

Introduction.

Red book is the conscience of each of us. Every nation has a responsibility to the world to protect it is natural resources. It is known that there are about 4300 plant species in the territory of the Republic of the Uzbekistan, among them which there are many rare, endemic and relict species that need serious protection. Surkhandarya, which is the southern region, is also rich in rare plant species. Kughitang mountain range belongs to Sherabad district and is the location of the Surkhan State Reserve. The main information about the plants of the Kughitang range is given in the works of S.A. Nevsky, R.V. Kamelin and F.O. Khasanov. We can see that the population of mentioned plant species are very low and declining by a factor of several. A recent study focused on the cause of the extinction these species and distribution of the plants that included in the Red book.

Materials and Methods.

Research work based on taxonomic, route, areological, biomorphological methods were used. In the study of the area of research flora B.A. Yursev's proposed program for studying the flora of nature reserves and other large protected areas was used. The typification information for the species was checked using the Global Biodiversity Information Facility (GBIF). Distribution areas of species identified Maps.me and Google Earth. The presented map in this article is about the areas where the species are distributed was made using the ArcGIS 10.8 program.

LITERATURE VIEW

1. **Scutellaria colpodea** Nevski in Act. Inst. Bot. Acad. Sc. URSS. 1 ser. 4 (1937) 322.-Juzz. II Фл. СССР. 20 (1954) 115.- III. Изогнутый.

Semishrub with grey Perennial herbaceous plant with grayish stems 30-60 cm high. Leaves ovate with numerous nerves 1,5-2 cm lg., obtuse. Flower in bract axils forming rare inflorescence. Calyx 2-3,5 cm lg., with 2-lobed appendix. Perianth yellow, 18-23 mm lg., dense pilose. Fruits pilosed.

Status	3. A rare endemic plant in the south-western Pamir-Alay region.
Flowering	June-September
Fruiting	August-October
Ecology	Grows at gypseous slopes
Distribution —South-western Pamir Alay, western branches of the Hissar range, the Baysun mountains, the Kughitang and Babatag (Kashkadarya and Surkhandarya regions) 500 plants population were registered	

2. **Scutellaria fedshenkoi** Bornm. in Beth. Bot. Centralbi. 36,2 (1918) 60. – Juz. In Фл. СССР. 20 (1954) 209.- *S. hissarica* var. *Fedtschenkoi* M. Pop. in Not. Syst. Herb. Hort. Bot. Reip. Ross. 5 (1924) 153. –*Anaspis Fedtschenkoi* Rech. f. in Notizbl. Gart. Berlin 15 (1941) 630. – **III. Федченки.**

Perennial herbaceous plant up to 50 cm high. Stems numerous, thin. Leaves grey-bluish, nearly rounded, obtuse, glabrous. Flowers with short pedicels in lax unilateral inflorescences at stem and branch apexes. Corolla dark blue.

Status	2. Rare endemic species of south-western Pamiroalai
Flowering	June-July
Fruiting	July-August
Ecology	Clefts of limestone rocks in the middle belt of mountains.
Distribution — South western Pamir Alay. Hissar range; between Guzar and Sherabad, the surroundings of the villages Shurab and Derbent, the Buzgalakhana gorge; the Tupalang valley, the Baysuntau (Kashkadarya and Surkhandarya regions) Rare endemic plant, specimens very rarely can be found.	

3. **Logochilus inebrians** Bge in Mem. Acad. Sc. Petersb. sav. etrang.7 (1951) 438. – Knorr. in Фл. СССР. 21 (1954) 166. –**З. г.опьяняющая.** Банги-дивана.

Erect semishrub 30-60 cm high. Stems simple or branched. Leaves broadly ovate, 3-5-lobed. Corolla white with rather dirty tint. Flowers in 4-6 in upper stem. Calyx narrowly campanulate. Nutlets glabrous, yellowish-grey.

Status	2. Rare endemic species of western Pamiroalai and Kyzylkum
Flowering	June-August
Fruiting	June-September
Ecology	Submontane plains and low foothills, up to 1200 m. on pebble-beds and fluvial outwash, gravelly slopes, in wormwood-grass and wormwood-forb associations.
Distribution — South western Pamir Alay and Kyzylkum. Nuratau, the Zirabulak and Ziadin mountains, the Zeravshan and Turkestan ranges; Kyzylkum: the Kuldjuktai (Jizzakh, Samarkand, Surkhandarya, Navoi and Bukhara regions) Rare endemic species species, small populations can be found sporadically	

4. **Salvia lillacinocoerulea** Nevski in Act. Inst. Bot. Acad. Sc. URSS. 1 ser. 4 (1937) 327, *exci.* *Syn.* – Pobed. In Фл. СССР. 21 (1954) 279. – **III. Лиловоголубой.**

Stem erect, densely glandular-pilose. Leaves numerous, petioled, oblong-lanceolate, pinnate, dense pilose. Flowers with pedicel 10 mm lg., 1-2 in bract axils. Calyx broadly campanulate, slightly inflated, 15-20 mm lg., densely pilose. Perianth violet, 35-40 mm lg., naked. Fruits elliptic, 5 mm lg.

Status	2. Rare endemic species of northern Pamiroalai.
Flowering	May-June
Fruiting	June-August
Ecology	Grows at rocks and stony slopes of the middle mountainous zones.
Distribution —South western Pamir Alay, western spurs of the Hissar range, the Kughitang, Susyztau and Baysuntau ranges. Range endemic species, 3000 plants can be found.	

5. *Phlomoides baburii* (Adyl.). Adyl., comb. nov. Eremostachys baburii Adyl. in ДАН УЗССР. 9 (1984) 47. – Ф. Бабура.

Description— Perennial herbaceous plant 40-50 cm high. Stem, spreading-branched from the base, glabrous. Radical leaves oblong, broadly cuneate at the base, short-petioled, glabrous; stem leaves reduced, sessile, sharp-toothed. Flowers sessile, in few-flowered, slightly scattered false whorls in floral leaf axils. Bracts subulate, glabrous, 4 times shorter than calyx. Calyx 16- 20 mm long, tubular-campanulate, glabrous. Calyx teeth densely ciliate on the margin. Corolla about 30 mm long, probably white or pale yellow (when dry); corolla tube scarcely prominent from calyx.

Status	1. Very rare endemic species of southern Pamiroalaj
Flowering	May
Fruiting	May-June
Ecology	Grows at . Grey clays
Distribution. Kelif-Sherabad range: nearby Aktash village (Surkhandarya region).	

Using the collected herbarium specimens, a map representing the distribution area of the section was made. When species were analyzed according to phytogeographic regions of Kughitang (**Figure 1**) the following result is obtained.

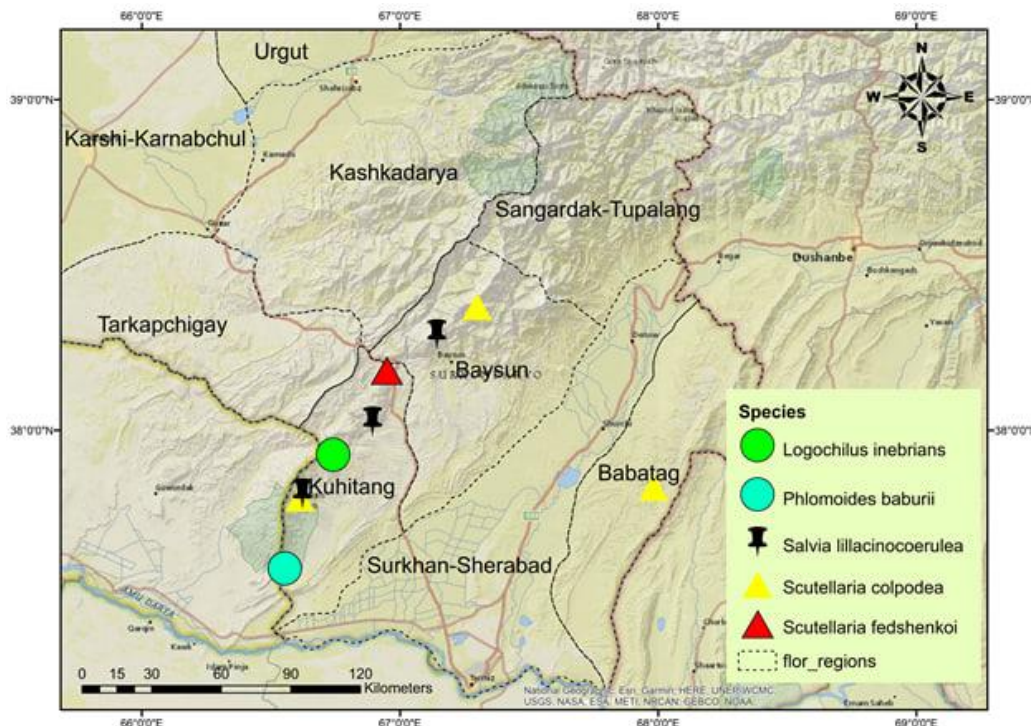


Fig.1 Distrubition of species.

Discussion and Conclusion:

We can cite many factors as the reason for the reduction of the areas of the plants. For example, there are more drought years as a result of climate change. It is the use of natural areas by the population as pasture for livestock. We know that representatives of the Lamiaceae family contain many alkaloids and essential oils, plants are with high medicinal properties. As a result of human misuse of resources, they are harvested and their population are limited. Nowadays more emphasis is placed on studying such plants and preventing them by studying the reason for their decline. Transplanting plants to natural landscape by multiplying them in laboratory conditions, preventing their complete disappearance.

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