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Research Article

APPEARANCE OF CHANGES IN THE GEO-ECOLOGICAL SITUATION IN THE VEGETATION OF THE REGION (IN THE EXAMPLE OF THE LOWER PART OF THE ZARAFSHAN RIVER)

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ABSTRACT

This article analyzes the issues of manifestation of changes in the geoecological situation in the area's organic, including plant life. The geosystems of the Lower Zarafshan natural geographic region located in the southwestern part of Uzbekistan are considered in terms of the decline of flora under the influence of desertification, climate change, and natural and anthropogenic factors.

KEYWORDS

Zarafshan River, geosystem, climate change, desertification, natural, anthropogenic, district, landscape, indicator, vegetation.

INTRODUCTION

In the humk push of stability in nature, all components, including flora, fauna, have been a special place, and the protection of the environment, fauna and flora in Uzbekistan has been paid special attention since the earliest periods of independence. Legislation was passed, including The "Nature Conservation Act" (9 December 1992), the "Special Protected Areas Act" (7 May 1993), and the "conservation and use of the plant World" (26 December 1997). These regulatory documents are an important legal basis for the preservation and preservation of flora and fauna.

The "Red Book" of Uzbekistan was established in 1979 and provides complete information on rare and endangered species of fauna and flora.

To date, the Uzbek "red book" has been published five times, in 1979, 1984, 1998, 2006, and 2009, with a total of 301 plant species being included in the "Red Book", the most recent published in 2009. This in turn was rich in 138 species compared to the 1984 edition (163 in 1984). It can be seen that over the course of twenty-five years, 138 species of plants have declined, or several have completely disappeared from nature.

In the "Red Book", compiled and published in 2009, plants are classified into

Groups (categories) according to the classification developed by the International Union for Conservation of Nature, which are:

1. Species on the verge of being lost or lost. Species that have not been found in nature for several years, but are likely to persist only in some difficult-to-harvest areas or in cultural conditions.

2. Endangered species. Species that require special protection for endangered preservation.
3. Rare species. Species that survive in specific conditions in certain small areas, which can disappear quickly and require serious control.
4. Declining species. Species whose numbers and scattered maidoias are shrinking for natural reasons or under anthropogenic influence over a certain period of time. Plants in this group will need special control.

The plant world of the lower Zarafshan natural District is the effective use of them, as well as conservation measures Cherneva O.V (1962). Zakirov K (1971), Pratov U.P (1972), Tojibaev K.Sh (2007) as reflected in the research of researchers.

Lower Zarafshan County, although located in the desert zone, is much richer in the organic world. More than a thousand species of high plants are found in this area. The desert section lists 580 species in 55 families, while the Oasis section lists only 219 species of weeds. Of the desert plants, 173 species are endemic to Central Asia, while 18 species are found only in the Oasis [1,2,3].

The variety of soil types, relief conditions, the regime of grunt water, the location of salts in the soil determine whether plants vegetate under different ecolrgic conditions. The Chunonchi, a rabbit-bone group, is usually typical of disturbed sand dunes; those around wells are abundant in the sands of the Reserve. It is joined by male selenium, singrene and partek. Wells are common in disturbed dunes in ATRO, as are Circassian and juzghun. Cherkez and yulghun grow in the dry forests of mahandarya, since the approach of the grunt waters to the Earth's bet will have an impact on this. In the sand Meadows, sand dunes, where

intensive mooning takes place, the juzghun group is widely spread. If it is grown with the addition of a snake and other plants, then the yield of pasture reaches 2-4 ts.

In the fortified dune and marzali dunes in the OASIS, the oqsaksoyul-ILO group is common. The productivity of the pasture in this case reaches 3-5 ts. Gray-brown soils on the ridges and residual heights in the Oasis are often covered with Turon Wormwood. In the tairs and in the ancient Delta thecistles, cairvuk, tethyr, boyalish and blackcurrant grow.

In strongly salted shakhoks, plants of sarsazan and blackberries grow. The weavers in the banks of the Zarashon River have now almost disappeared, leaving some small protected weevil landsheds intact. Turongil yulghun are distributed in coastal parts of mokhandarya and Taikir.

In our republic and, respectively, in lower Zarafshan County, the flora and fauna of the territory decreased as a result of extensive land acquisition (in deserts and Chalas), industry (especially in the region, the widespread development of fuel energy industries), the organization of road infrastructures and other anthropogenic influences, and several named plants are included in the "Red Book" of Uzbekistan as lost, disappearing, rare, declining species. Below we will analyze these in detail:

1. Patsimon astragal (Astragalus plumtus Boriss). The rarity rate is 2. It is a rare endemic species in Uzbekistan. Shrub, up to 60 cm tall, branches branched, large, straight, with white hairs, covered with thick thorns, reaching 4-6 CM in length. Bukhara, Samarkand, provinces: Kyzylkum, Konimex, atroida, Pomr-Oloy, Zirabulo-ziyovuddin mountains and nurota range. Grows singly and forming small clusters. No

special conservation measures have been developed [4].

2. The Lemann Tulip (Tulipa lehmnian Mercki) has a rarity of 3. It is a very rare species in Uzbekistan. Perennial onion grass between 15-25 cm tall. The appearance of the onion is ovoid, reaching 1.5-4 cm in diameter. It is found in the territory of Bukhara, Navoi, Jizzakh regions, including in the Kizilum desert in the regions of Konimex, Tomdi, in addition, in Kazakhstan, Turkmenistan, Tajikistan. Grows singly and in small groups. It has been grown in the Botanical Garden of the Academy of Sciences of the Republic of Uzbekistan and in the Botanical Garden of Khojand (Tajikistan) since 1956. It is recommended that growing areas be monitored as conservation measures[5].

3. Turkestan zulofia Eulophia turkestanica (Litv)/ Schiecht. The rarity rate is 2. The areali of Southern Central Asia is an isolated rare, endemous plant. Hairy, yellow-purple, perennial grass between 35-50 CM in height. It is mainly distributed in the regions of Bukhara, Navoi, Samarkand, Surkhandarya, including in the Valley of the Zarafshan River, around Karmana, Konimex, between the villages of Jarqurgan and Surkhan, around the city of Denov. Grows to form low-spreading, not very large balls. There is no data on culturelationability. No special conservation measures have been developed. It is necessary to determine the number and distribution and study the growth in nature and without culture [6].

4. Matthew kandimi Calligonum matteianum Drobov. The rarity rate is 2. A rare, endemous plant that is combed in small areas of the caterpillar. Height 70-150 CM slightly-a branching shrub with curved elbows. Bukhara Karakol oases, scattered around Sea Kol, can also be found in Turkmenistan. Grows in very small quantities in small areas, mainly in reinforced sand heaps. The plant has declined as a result of continuous

livestock use and use of growing fields as firewood. There are no known cultured records. No special conservation measures have been developed. It is necessary to regulate the grazing of livestock as well as to prohibit the cutting of wood in the SIAT [7].

5. The Palesky candy Calligonum paletzcifnum Litv. The rarity rate is 2. A rare, endemous plant that is combed in small areas of the caterpillar. Height 100-200 CM slightly-a branching shrub with curved elbows. Distributed around the seaside in lower Zarashon, it is also found in Turkmenistan and Tajikistan. Rare. Small-grows to form small balls. An attempt was made to grow it in the FA Botanical Garden.

No special conservation measures have been developed [8].

6. Merkulovich's fly Climacoptera merkulowiczii (Zkirov) Botsch. The rarity rate is 2. It is a rare endemic species that is combed in the redcurrant. Annual herbaceous plant. Height 10-40 CM. The structure is thick, with a short branching tangle of hairs that diminish later. Distributed in lower Zarashon County as well as Kyzylkum. Grows mainly on saline soils. small-grows to form small balls. The number of plants and the reasons for the change in areale.as it can be shown the irregular feeding of livestock. There is no information about its culturation. No special conservation measures have been developed [9].

7. The Horned hairy eremostaxis Eremostachys eriolarynx Pazij et Vved. The rarity rate is 1. A very rare endemic plant in the Daisy. Brief description: perennial grass that reaches 20-30 cm in height. The STEM is thick, covered with simple snapping hairs. Bukhara region: distributed in Kyzylkum. It is also found in Kazakhstan. Grows on soils of Sur-brown color on plains.

It was first plucked from the karak desert in 1871 and from the eastern foothills of the karak mountain in the same year (Chimkent region of Kazakhstan). The last one was found near the village of Yangiquduq (Bukhara region) under Gijduvan district in 1956. In recent years, organized expeditions to find this species have ended without result.

The main reason for the change in the number of plants and areale is indicated by the irregular feeding of livestock. There is no data on the culturing of the plant. No special conservation measures have been developed. Expeditions should be organized in order to determine the preserved places [10].

1. Saugd karragi Cousiniyaogdiana Bornm. The rarity rate is 1. A very rare endemic plant, growing in small areas in Uzbekistan. Brief description: a biennial herb with a thin wing with a dense pubescence with a stem that reaches 70 cm in height.. The distribution is mainly concentrated on the banks of the lower Qsmi of the Zarashon river, in some areas of Qizilqum. Grows singly, mainly in fortified sands and sand heaps.

Irregular cattle grazing as well as other anthropogenic effects are cited as reasons for the change in plant numbers and areale. There is no data on the culturing of the plant. Conservation measures. it is recommended to establish control over species growing in natural conditions [11].

In conclusion, it can be said that biodiversity is present in all ecosystems on Earth. The loss and decline of one species creates inconveniences for different species, with zero species always interwoven with one. As a result of the lack of rational use of Natural Resources, many species and non-native components are at risk.

REFERENCES

1. Granitov I.I. Vegetation cover of South-Western Kyzylkums. Tashkent, "Science", 1964. Vol. 1.- 336 p.
2. Guzairov H.H. Weed vegetation of deposits and field crops of Bukhara. Harmful and useful wild plants of the Bukhara oasis. – Tashkent: "Fan", 1968. - p. 52-90.
3. Fayziev A., Nazarov I. Endemic plants of the southwestern Redcurrant and their conservation. Information of the Geographical Society of Uzbekistan. Volume 21. - Tashkent: 2000.-B.65-66.
4. Dzhalalov A. On the protection of the golden mountain flower (*Adonis chrysocyathus*)//Mat. Sovesh. For the protection of the flora of the republics. Central Asia and Kazakhstan. Tashkent: "Fan", 1971, pp.288-289.
5. Tozhibaev K.Sh., Beshko N.Yu. Cadastre of rare and endemic plants of the Dzhizaksokgo and Navoi viloyats of the Republic of Uzbekistan // Biodegradation of Uzbekistan - monitoring and use. - Tashkent, 2007. pp.200-208.
6. Belolipov I.V. otostegiya bucharic B. Fedtsch. The Red Book of the Republic of Uzbekistan. Tashkent, ENK "Chinor", 1996. pp.18-24.
7. Nabiev M.M. Genus *Glligonum*//Determinant of plants of Central Asia. Vol. 2. Tashkent: Fan, 1971. pp.191-199.
8. Pavlon N.V. Genus *Glligonum*//Flora of the USSR Academy of Sciences, 1936, pp. 69-70, 553, 580.
9. Prator U.P. Family. *Chenopodicee* // Determinant of plants of Central Asia. Vol. 3. Tashkent, "Fan", 1972, pp. 92, 94, 133.
10. Vvedensky A.I.Family. *Labitee*//Flora of Uzbekistan Tashkent From-in. Academy of Sciences of the Uzbek SSR. 1961, p. 263, 416.
11. Cherneva O.V. Genus *Cousinia* // Flora of Uzbekistan Tashkent, From the Academy of Sciences of the Uzbek SSR, 1962, p.246, 331, 510.
12. Rasulov, A., Madjitova, J., & Islomova, D. (2022). PRINCIPLES OF TOURISM DEVELOPMENT IN DOWNSTREAM ZARAFSHAN DISTRICT. American Journal Of Social Sciences And Humanity Research, 2(05), 11-16.
13. Rasulov, A. B., Hasanov, E. M., & Khayruddinova, Z. R. STATE OF ENT ORGANS OF ELDERLY AND SENILE PEOPLE AS AN EXAMPLE OF JIZZAKH REGION OF UZBEKISTAN. ЎЗБЕКИСТОН РЕСПУБЛИКАСИ ОТОРИНОЛАРИНГОЛОГЛАРНИНГ ИҲ СЪЕЗДИГА БАҒИШЛАНГАН МАҲСУС СОН, 22.
14. Расулов, А. Б., & Расулова, Н. А. (2013). Опыт периодизации географических взглядов. Молодой ученый, (7), 121-123.
15. Nigmatov, A. N., Abdireimov, S. J., Rasulov, A., & Bekaeva, M. E. (2021). Experience of using gis technology in the development of geoeological maps. International Journal of Engineering Research and Technology, 13(12), 4835-4838.
16. Rasulov, A., Saparov, K., & Nizamov, A. (2021). THE IMPORTANCE OF THE STRATIGRAPHIC LAYER IN TOPONYMICS. CURRENT RESEARCH JOURNAL OF PEDAGOGICS, 2(12), 61-67.
17. Nizomov, A., Rasulov, A., Nasiba, H., & Sitara, E. (2022, December). THE SIGNIFICANCE OF MAHMUD KOSHGARI'S HERITAGE IN STUDYING CERTAIN ECONOMIC GEOGRAPHICAL CONCEPTS. In Conference Zone (pp. 704-709).
18. Rasulov, A., Alimkulov, N., & Safarov, U. (2022). THE ROLE OF GEOECOLOGICAL INDICATORS IN THE SUSTAINABLE DEVELOPMENT OF AREAS. Journal of Pharmaceutical Negative Results, 6498-6501.

19. Nizomov, A., & Rasulov, A. B. (2022). GEOGRAPHICAL SIGNIFICANCE OF THE SCIENTIFIC HERITAGE OF MAHMUD KASHGARI. Journal of Geography and Natural Resources, 2(05), 13-21.
20. Rasulov, A. (2021). The current situation in the district of lower zarafshan plant species-eco-indicator. ASIAN JOURNAL OF MULTIDIMENSIONAL RESEARCH, 10(4), 304-307.



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