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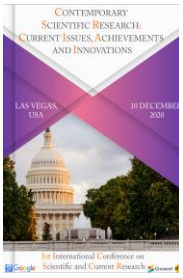

Biological Diversity Of Aydar-Arnasay Basin

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ABSTRACT

The biological world of the Aydar-Arnasay basin and the lake system in its central part has been studied and the factors influencing it have been analyzed.

KEYWORDS

Aydar-Arnasay basin, biodiversity, trees, shrubs, semi-shrubs, shrubs, perennial grasses, annual grasses, tugai plants.

INTRODUCTION

The Aydar-Arnasay basin is located at the confluence of the Nurata mountain range and the Kyzylkum desert. The basin has a plate-like appearance, with an increasing slope from south-east to north-west. Although the area of the Aydar-Arnasay basin (about 5,000 km2) is small, it differs from other basins by its biodiversity.

To date, 300 plant species have been registered by botanists in the Aydar-Arnasay basin. A systematic and biomorphological spectrum of these species was compiled, a list of trees - 9, shrubs - 21, semi-shrubs - 9, shrubs - 19, perennial grasses - 96, annual grasses - 146. In the Aydar-Arnasay lake system, 25 species of algae have been identified. Of these, 13 are diatoms, 8 are blue-green, and 4 are green algae. Of these, 6 species are widespread in all seasons, spring, summer and autumn. The seasonal variability of algae in lakes depends on the effects of the external environment, which changes periodically throughout the year. The following factors have influenced the biodiversity of the basin or the abundance of biological resources. Natural geographical location. The location of the largest mountain ranges and deserts of Central Asia in an interconnected intermediate zone.

The central part of the basin is occupied by the Aydar-Arnasay lake system. The Aydar-Arnasay lake system is the fourth largest in

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Central Asia, with an area of 3,702 km2 and a volume of 44.1 km3.

Influence of 4 different environments on and around the sinkhole. The southern part of the Aydar-Arnasay basin is affected by the mountain environment, the north-western part by the desert environment, the eastern part by the anthropogenic environment and the central part by the aquatic environment.The basin is located within the boundaries of temperate and subtropical climate zones. In a large area of the basin, latitude obeys the zoning law, while the southern part obeys the height law. In addition to the above factors, the length of the growing season and high relative humidity also affect the distribution of many species of plants and animals.

We cite here some considerations on the relationship of the distribution of plants in the swamp to the environment.

On the shores of the Aydar-Arnasay lake system, there are tugai forests of different latitudes. The area of tugai is variable due to external factors. It is possible to observe that during the flood years the tugai area remains under water or during the years of lake retreat the tugai area shifts towards the shore. At the same time, about 40% of tugai plants are adapted to the occasional flooding and growth in saline conditions, as a result of stationary observations.

In the tugai in the Aydar-Arnasay basin there are trees, turanga, turangil, various deciduous poplars, ash, oleaster; from the bushes willow, white and black willow, saxophone; Among the grasses there are sage, sagebrush, reed, ivy, sagebrush.

The study of tugai plants has led to the conclusion that the role of reeds in the change of natural processes in the basin is increasing. When the vegetation period of the reeds is studied, we see that they develop very well in March-April, and in the remaining months the development slows down or stops altogether. After the end of the growing season in reeds, the decay of reeds is intensified due to the interaction of heat and moisture in the air and soil. As a result, there is a risk of formation of a layer of hydrogen sulfide in the Aydar-Arnasay lakes due to the decay of reeds. If a layer of hydrogen sulfide is formed, events such as a sharp decrease in biomass in the Aydar-Arnasay lake system and disturbance of the biological balance in the basin may occur.

A common feature of small lakes in the Aydar-Arnasay lake system is that when approaching the lakes, whitewashing begins, and in places where there is a livestock complex, there are incense burners. After passing through the incense burners, the area of whitewashing begins again. Near the lake there are jingles, and the area around the lake is lined with whites. In addition to these dominant species, we observe an area of cereal grasses and sedges. But sometimes limiting factors prevent their spread. For example, an excess of relative humidity causes the spread of blackberry disease in cereal plants, while a decrease in groundwater affects the shrinkage of arable land.

In the Aydar-Arnasay basin, wet salt marshes have formed on the shores of lakes and in retreated areas. The surface of the wet brine is covered with a 3-4 mm thick layer of salt, under which porous salts are formed. There are no plants on the surface of 50-60% of the wet brine, the rest is distinguished by the green bush of the most saline-resistant sarzasan plant on the white brine. Along with sarzasan, there is also a hard-eyed fish. Together, they cover up to 40% of the salt surface. It should be noted that the sarsazan plant traps dust and sand brought by the wind around it, resulting in the formation of strong saline sand piles. The locals call it "baby" sands. At the bottom of the Aydar-Arnasay basin, such sand dunes, which are formed every year, form their own small relief forms.

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Between these sand dunes grow the following salt-tolerant plants: jingle, deafness, nitraria. These bushes, in turn, act as a barrier to trap sand and dust.

CONCLUSION

In conclusion, we tried to study and analyze the community of plants that live in 3 different environments. As mentioned above, by studying the characteristics of each of the 300 plant species and 25 algae and their relationship to the environment, it is possible to determine the dynamics and development of the landscapes in the swamp. It is worth noting that the term "landscape mirror" of the plant is not used in vain.

REFERENCES

1. Alibekov L, Alibekova S, Hazarov I, Gudalov M. About some regularities of degradation geosystems in Central Asia. Tatranka Javorina, Slovakia, 2012, Vol 21, № -1, 42-44 r
2. Gudalov M. Foundation of Aydar-Arnasay lakes system and their effects on the environmental landscape. Nature and Science.Volume 17, Number 11 November 25, 2019 USA New York.
3. Gudalov M., Zikirov B. Metnods of studying the landscapes around the Aydar-Arnasay lake system. International engineering journal for research & development. Vol - 5, Issue - 7, 2020 India.
4. Gudalov M., Zikirov B., Imamova D. Predicting changes in landscares around the Aydar-Arnasay lake system. Accerted in the journal The American of Engineering and Technology. Volume - 02, Issue - 10, October 2020.
5. Gudalov M., Gozieva M. Ways to develor modern ecoturism in the Zamin basin. International engineering journal for research & development. Vol - 5, Issue - 7, 2020 India.
6. Sharipov Sh, Gudalov M, Shomurodova Sh. Geolologic situation in the Aydar-Arnasay colony and its atropny. Journal of Critical Reviews. Volume 7, Issue 3, 2020 Malaysia Kuala Lumpur.
7. Sharipov Sh, Shomurodova Sh, Gudalov M. The use of the mountain kars in the tourism sphere in cort and recreation zone of Chimgan-Charvak. Journal of Critical Reviews. Volume 7, Issue 3, 2020 Malaysia Kuala Lumpur.
8. ФЛОРИСТИК, Н. (2006). ДА ИМОМОВА. Доклады Академии наук Республики Узбекистан, (4-5), 105.