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BUKHARA REGION AND ITS RELATED TERRITORIES' SPECIES OF REPTILES PART AND NUMBERS' IN SPRING (AYOKOGITMA, KANDIM, AYOKGUJRUMLI, KIZILKUM STATE NATURE RESERVE)

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ВИДЫ И ЧИСЛЕННОСТЬ ПРЕСМЫКАЮЩИХСЯ В ВЕСЕННИЙ ПЕРИОД НА ТЕРРИТОРИЯХ, ОТНОСЯЩИХСЯ К БУХАРСКОЙ ОБЛАСТИ (АЙОКОГИТМА, КАНДЫМ, АЙОКГУЖРУМЛИ, КЫЗЫЛКУМСКИЙ ГОСУДАРСТВЕННЫЙ ЗАПОВЕДНИК)

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ABSTRACT

This article examines the number, species and habitat status of reptiles in the Bukhara region and neighboring Ayakogitma, Kandym, Ayakgujumli, Kyzylkum State Reserve and surrounding areas, as well as their natural and economic significance. Bukhara region and adjacent areas Ayokogitma, Kandim, Ayoqgujrumli, Kyzylkum State Nature Reserve and its surroundings were analyzed for the regional distribution and number of reptiles in the spring by biotope diversity. In the spring of 2020, 26 species of amphibians belonging to 2 genera were identified based on the analysis of the fauna of Ayoqogitma, Kandym, Ayoqgujumli, Kyzylkum State Reserve, and its surrounding fauna. 7 species of reptile fauna of the Bukhara region and adjacent territories are included in the Red Book of the Republic of Uzbekistan.

АННОТАЦИЯ

В данной статье исследуются количество, вид и статус среды обитания рептилий в Бухарской области и соседних государственных заповедниках Аякогитма, Кандым, Аякгуджумли, Кызылкум и прилегающих территориях, а также их природное и экономическое значение. Бухарская область и прилегающие территории Айокогитма, Кандим, Айокгуджрумлы, Кызылкумский государственный природный заповедник и его окрестности были проанализированы на предмет регионального распределения и численности рептилий весной по разнообразию биотопов. Весной 2020 года на основе анализа фауны Айокогитма, Кандыма, Айокгуджумли, Кызылкумского государственного заповедника и окружающей его фауны было идентифицировано 26 видов земноводных, относящихся к 2 родам. 7 видов рептилий фауны Бухарской области и прилегающих территорий занесены в Красную книгу Республики Узбекистан.

Keywords: desert, pasture, reserve, Tamarix aphylla, haloxylon persicum, ammodendron Conolly, Red Book, Agrionemys horsfieldii, Naja oxiana, Varanus griseus, agama, lizard, route, fauna, flora.

Ключевые слова: пустыня, пастбище, заповедник, Tamarix aphylla, haloxylon persicum, ammodendron Conolly, Красная книга, Agrionemys horsfieldii, Naja oxiana, Varanus griseus, агама, ящерица, маршрут, фауна, флора.

The object of research: Bukhara region and adjacent areas Oyokogitma, Kandym, Ayakgujumli, Kyzylkum State Nature Reserve and its environs.

The subject of research: To determine the number of Bukhara region and adjacent territories Ayakogitma, Kandym, Ayakgujumli, Kyzylkum State Reserve and its environs by studying the current situation in various habitats, to determine their importance in nature and the economy.

Material and methods: Survey carried out in the region qisminigil grounded, stony desert, saline marshes and its parts. Desert's plants Tamarix, Haloxylon persicum, Haloxylon belangeriana, Descurainia Sophia, Artemisia diffuse, Alhagi pseudalhagi, Ammodendron conollyioccurva. Desert pastures are mostly used for livestock, especially sheep and goats. In recent years, the construction and transportation in these areas, as well as the construction of railways, gas pipelines have had an impact on the biodiversity of the region. In order to determine the composition of the species of aquatic fauna of Oyakogitma, Kandym, Ayakgujimli, Kyzylkum State Reserve, and adjacent areas, our observations were made in March, April and May of the 2020 season (March 04-11, March 18-25, April 05-12, April 19-26 and 01-08, 15–22 May 2020). The study area has surveyed a total of 32 times on land using stationary and route counting methods [2; 3; 4; 5; 6]. The results of the animal census were extrapolated to a 10-hectare area and the density of the animal community was determined according to the following formula:

$$D = \frac{n}{2 \cdot L \cdot W};$$

Where *D* is the density; n is the number of birds encountered; *L* is the route length; *W* is the width of the route or the distance from the route axis to the boundary of the calculated corridor. Multiplication 2 was used in the formula to account for birds to the left and right of the route axis, but the results of our calculations were taken from one side of the route axis, given the specificity of the lakes.

Results and discussion. In the spring of 2020, 26 species of amphibians belonging to 2 genera were identified based on the analysis of the fauna of Ayoqogitma, Kandym, Ayoqgujumli, Kyzylkum State Reserve, and its surrounding fauna. Territorial, hilly and remnant mountains, as well as the number and quantity of species recorded in the settlement, their peculiarities are described.

7 species of reptile fauna of the Bukhara region and adjacent territories are included in the Red Book of the Republic of Uzbekistan, 2 species in the IUCN Red List, 4 species in CITES Appendices I and II [1].

Today, special attention is paid to the protection and rational use of wildlife, which is an important component of biodiversity around the world. Accordingly, the study of these issues, the development of appropriate recommendations to address them is of theoretical and practical importance in the protection of animals, their sustainable use, regulation of hunting and improving the economic and social welfare of the population. One of the reforms in the country is natural resources. Rational use, preservation of plant and animal gene pool for future generations. In recent years, the increase in the scale of anthropogenic impacts on natural landscapes requires taking into account the components of nature and, consequently, their assessment and development of appropriate measures. However, the species composition, number, biotopic distribution, reproduction, seasonality and duration of reptiles in Ayakogitma, Kandym, Ayakgujumli, Kyzylkum State Reserve, and adjacent areas have not been studied. Our calculations show that in the spring season 26 species of reptiles were recorded (Table 1).

Table 1.

Species composition and number of reptiles in Ayakogitma, Kandim, Ayakgujumli, Kyzylkum State Reserve, and adjacent areas

№	Group and species names	Reserve name	March	April	May	Total	%
		Testudines					
1	*Agrionemys horsfieldi*	UzRDB, RL, CITES II	1	4	8	13	1.79
		Squamata					
2	*Phrynocephalus moltschanovi*	UzRDB	-	1	3	4	0.55
3	*Phrynocephalus interscapularis*		5	6	12	23	3.16
4	*Phrynocephalus mystaceus*		4	13	22	39	5.37
5	*Laudakia lehmanni*		5	12	36	53	7.30
6	*Trapelus sanguinolentus*		10	23	26	59	8.12
7	*Crossobamon eversmanni*		8	14	16	38	5.23
8	*Cyrtopodioncaspius*		13	16	28	57	7.85
9	*Cyrtopodionfedtschenkoi*		4	9	17	30	4.13
10	*Teratoscincus scincus*		1	4	6	11	1.51
11	*Eremias grammica*		10	21	24	55	7.57
12	*Eremias intermedia*		5	8	17	30	4.13
13	*Eremias lineolata*		6	7	12	25	3.44
14	*Eremias velox*		11	21	43	75	10.33
15	*Ablepharus deserti*		13	23	26	62	8.53
16	*Varanus griseus*	UzRDB CITES I	2	5	7	14	1.92
17	*Eryx miliaris*	UzRDB, CITES II	2	3	10	15	2.06
18	*B.t.melanocephala*	UzRDB	-	1	2	3	0.41
19	*Coluber karelinii*		3	6	11	20	2.75
20	*Coluber ravergieri*		-	3	6	9	1.23
21	*- Elaphe dione*		1	4	7	12	1.65
22	*Lytorhynchus ridgewayi*	UzRDB	1	2	3	6	0.82
23	*Natrix tessellata*		11	15	24	50	6.88
24	*Psammophis lineolatus*		1	3	4	8	1.10
25	*Spalerosophis diadema*		2	4	5	11	1.51
26	*Naja oxiana*	Uz-RDB,RL,CITES II	-	1	3	4	0.55
	Total		119	229	378	726	100

RL - Red Listed Species of the International Union for Conservation of Nature and Natural Resources (IUCN) (2004)

CITES I, CITES II - Species (subspecies) included in the annexes to the Convention on International Trade in Endangered Species of Wild Fauna and Flora.

A total of 7 species of protected reptiles were found during the study in the region, of which 7 species are listed in the Red Data Book of the Republic of Uzbekistan, 2 species are on the IUCN Red List, 4 species are CITES I; Inclusion in CITES II was determined by studies (Table 1). In March, the number of reptile species increased to 26 (including 26 species), including 259. Eremias velox, Ablepharus dessert, Trapelus sanguinolentus, Cyrtopodioncaspius, Eremias grammica, Natrix tessellata were observed to increase the number of species. Directly related to the availability of opportunities. The misconception among the population about the healing properties of the meat and bones of the grey goat is leading to unplanned and disorderly hunting by the locals.

The Central Asian desert tortoise and its eggs have now declined sharply as a result of being trampled underfoot by livestock and killed by herding dogs. Barrier factors. Varanus griseus, listed in the Red Data Book of the Republic of Uzbekistan, died as a result of a collision with cars 10-15 km from Ogutma settlement to Uzunkuduk on 11.04.2020, and in late May Agrionemys Horsfield was captured by shepherds. Adverse effects such as conservation have also been observed [7].

Conclusion. The State Cadastre of Wildlife Objects consists of a systematic report of qualitative and quantitative information on the diversity, classification, number dynamics, level of study and other information necessary for the organization of measures for the protection and sustainable use of wildlife. Today, the data of the state cadastre of objects of fauna do not allow obtaining accurate information on the total number of animal species found in Uzbekistan, including the Bukhara region. Therefore, it is advisable to carry out practical work in this area.

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