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ESTABLISHMENT OF BUKHARA SPECIALIZED NURSERY "JAYRON". JAYRON GAZELLA SUBGUTTUROSA (GULDENSTAEDT, 1780), MORPHOLOGY AND POPULATION CHANGE IN 1977–2021

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Annotation
Goitred gazelle is the unique representative of a genus Gazelle in fauna of Central Asia. This species listed in the Red Data Book of IUCN, Red Data Books of the countries of Central Asia, including the Red Data Book of Uzbekistan (2006). This article provides a theoretical analysis of changes in the Bukhara specialized nursery “Zhairon” in connection with the long-term reproduction of the species of Gazelle in semi-captivity.

Keywords: Zhairon, Central Asia, Bukhara, Gazella subcutturosa.

Introduction

Establishment of the Bukhara specialized nursery "Jayron" (hereinafter referred to as the nursery). The nursery was originally established in 1976 by the decision of the Council of Ministers of the USSR No. 831 on an area of 5,145 hectares. Subsequently, the nursery area was expanded in accordance with the Resolution of the Cabinet of Ministers of the Republic of Uzbekistan No. 212 of September 19, 2008 "On the Program of Environmental Action in the Republic of Uzbekistan for 2008-2012." The nursery is located in the south-western part of the Kyzylkum desert, administratively in the south-eastern part of Bukhara region, in the territory of Bukhara district. Currently, the total area of the Nursery is 16,522 hectares, which is conditionally divided into two: the area of the 1st zone, protected by a barrier, - 5,145 hectares, and the area of the 2nd open zone - 11,377 hectares. Keeping and reproducing species protected in the nursery with the "Red Book"Of The Republic of Uzbekistan(2006) and the International "Red List": gazelles Gazella subcutturosa (Guldenstaedt, 1780), prjeval horse Equus cabalis przewalskii (Poljakov, 1881), Turkmen slave Eques Hemionus (Pallas, 1775), buxoro mountain Ovis orientalis bokharensis (elelin, 1774), in nature restore the number, thereby ensuring the stability of biocenoses of the south-western part of the Kyzylkum Desert, works on the preservation of populations of rare plant and animal species and the study of their bioecological properties.

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Gazella subcutturosa (Guldenstaedt, 1780), a weak, shrinking, subspecies spread inlay. Spread. Ustyurt plain, Southern Aral Sea, Kyzylkum Desert, Kimirekkum, Sandikli, Solo sands and Karshi desert, some areas of the Surkhandarya region. At present, the areal is fragmented into several tiny populations, many of which have nothing to do with one another. Outside Uzbekistan: the countries of Central Asia, Kazakhstan, the Caucasus, Iran, Afghanistan, Pakistan, China (Xinjiang), Mongolia.

Living Areas

Flat or low-high deserts, semi-deserts and steppes, steppe foothills. It prefers andupuprian lands. In winter, it lives in areas with uneven relief, flat plains gorges and pits; enters the thicket forest edges, ravines and plains. Number. At the beginning of XXI century, the number was estimated to be 5-6 thousand, of which in Bukhara region-1400-1600: 158080 in massiv Kuljuktag, 50-70 in massiv Karatag, 50-80 in massiv Kimirekkum, 80-100 in the crate; in Amudarya part – 100-200; in Bukhara specialized nursery" Jayron " - 902, in ekomarkaz in the scientific-practical part-39-45 pieces. Currently, approximately 4000 of them have been preserved.

Living Style

Lots of people live in more than one or a half acres. Only in the northern parts of the areal the nomuntazam moves seasonally. It is fed by herbaceous plants. Mating in November-December, children in April–may (1-2, sometimes-3); children are not separated from their mother until August–September, females are 7-8 months, males –18–19 months of sexual maturity, but for the first time participate in reproduction at the age of 2-3 years.

Limiting Factors

Appropriation of lands for economic purposes, poaching, ice hardening and a lot of snowfall.

Reproduction

Bukhara is growing on the territory of specialized "Jayron" nursery, Karakul hunting farm, vol land in the Tashkent zoo.

Protection Measures

Hunting is prohibited. In order to reproduce in captivity and semi-captive conditions, a specialized nursery "Gazyron" was established in Bukhara. Kyzylkum Reserve," Saygachiy "uaua (landscape) order Reserve and was protected in the lower orders. It is necessary to put an end to the conduct of economic activities in the current habitat: to treat stray dogs, to limit the number of dogs next to sheep herds. To create conditions for the destruction to go to water sources. It is necessary to establish additional specially protected areas in the flat plane of the Ustyurt in Kyzylkum (Strait, Locksmith).

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History of the Study

Until now, a lot of scientific research work has been carried out on the increase in the number of rubble in the nursery, the factors that affect it. From these: maternal and child relations of the Gazelle (Marmazinskaya, 2008), prevalence and density of the gazelles (Marmazinskaya, Mardonov, 1996), reproduction of the gazelle in the ecomarkazi" Jayron " (Marmazinskaya, 1996), the effect of plant cover on reproduction of the gazelles in semi-captivity (Mardonov, 1996), the modern strategy of protecting the population of the gazelles in the territory of Bukhara region: evaluation of the stability of habitats, number, density (Soldatova, Salimov,1997), the population of rubble in the "Jayron" ecomarkazi (chikin, Soldatova, 1997) can be cited as. In this article, observations made on the topic of monitoring the population of the hares since the beginning of the year in which the nursery was established, articles published as a result of scientific research, information constantly recorded in annual reports, data collected by the authors in recent years are summarized as well, according to the annual plan, a theoretical analysis of the changes in the process of perennial reproduction of the population of rubble under semi-captivity is presented, based on the data recorded in the act, compiled on the results of a general accounting measure of rare animal species, which is constantly held in October in the nursery.

Theoretical Analysis and Discussion

It is advisable to apply two main directions in maintaining rare species, ensuring their population stability and restoring their number. The first of these is the restoration and preservation of natural habitats of rare species, and the second is the reproduction by creating a living environment that is relatively close to the wild in conditions of captivity or, if not, semi-captivity. In the fauna of the territory of the Republic of Uzbekistan, the total number of the population of the gazelles is estimated at about 5-6 thousand at the beginning of the 21st century, more than 1000 of them are growing in the nursery. The main population of rubble multiplied in the nursery is kept in an area of 1-closed 5145 hectares. If the area was originally laid out in 1977 with the aim of multiplying 39 head gazelles in semi-captivity conditions in 285 years, the number of Stacks is changing over the next 44 years depending on various factors. The analysis of these indicators is presented in Table 1.

Table1. The population of rubble multiplied by the conditions of semi-captivity in the nursery is subject to a change in the number of years 1977-2020.

т/р	Years (in number)	Number of stacks(in number).	Change compared to a year ago (on the account of the hairdresser)		
Growth	Decline				
1	2	3	4	5	6
1	1977	39	-	-	unchanged
2	1978	45	1,15	-	reproduction.

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3	1979	64	1,42	-	reproduction.
4	1980	99	1,55	-	reproduction.
5	1981	165	1,67	-	reproduction.
6	1982	271	1,64	-	reproduction.
7	1983	410	1,51	-	reproduction.
8	1984	434	1,06	-	reproduction.
9	1985	606	1,4	-	reproduction.
10	1986	745	1,23	-	reproduction.
11	1987	900	1,21	-	reproduction.
12	1988	1137	1,264	-	reproduction.
13	1989	1224	1,08	reproduction.	
14	1990	1008	-	1,215	reduction
15	1991	814	-	1,24	reduction
16	1992	916	1,1301	reproduction.	
17	1993	628	-	1,46	reduction
18	1994	712	1,135	reproduction.	
19	1995	621	-	1,146	reduction
20	1996	633	1,02	reproduction.	
21	1997	521	-	1,214	reduction
22	1998	717	1,378	-	reproduction.
23	1999	815	1.138	-	reproduction.
24	2000	733	-	1,111	reduction
25	2001	608	-	1,205	reduction
26	2002	540	-	1,124	reduction
27	2003	625	1,158	-	reproduction.
28	2004	899	1,439	-	reproduction.
29	2005	1227	1,365	-	reproduction.
30	2006	1000	-	1.227	reduction
31	2007	549	-	1,82	reduction
32	2008	591	1,078	-	reproduction.
33	2009	902	1.527	-	reproduction.
34	2010	794	-	1,135	reduction
35	2011	169	-	4,69	reduction
36	2012	245	1,45	-	reproduction.
37	2013	350	1,43	-	reproduction.
38	2014	388	1.11	-	reproduction.
39	2015	541	1,395	-	reproduction.
40	2016	717	1,326	-	reproduction.
41	2017	959	1,338	-	reproduction.
42	2018	997	1,04	-	reproduction.
43	2019	953	-	1,046	reduction
44	2020	1075	1,129	-	reproduction.
45	2021	1200	1,116	-	reproduction.

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Observation of the dynamics of the population of rubble. Monitoring of Population Dynamics is carried out through:

- Total number of population;
- The share of newborn gazelle children in population;
- Changes in the mating season of the hares;
- Sex ratio in the population of rubble;
- Collection of osteological materials;
- Seasonal changes that occur and so on.

The number of gazelles varies over the years, because in some year's positive changes in climatic factors: insufficient amount of precipitation, insufficient natural nutrient reserves vs. favorable for the growth and reproduction of the population of gazelles, in some years on the contrary unfavorable conditions there is a lack of natural nutrient reserves, a decrease due to unfavorable climatic conditions. Analysis of changes in the dynamics of the population of rubble over the years 1977-2020:

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1990-1997 years-changes related to climate factors have had an adequate negative impact on the natural food reserves of the region. Decrease in the number of stacks; 1997-1999 years slightly rise;

1999-2002 years-decline. Lack of seasonal feed needs at the same time as the living environment changes;

2003-2005 years – there has been a tendency to increase the number of rubble in the population dynamics as a result of insufficient reserves of natural nutrients; 2006-2007 years-a sharp decline occurred. The first is that the mortality rate is high due to insufficient reserves of natural nutrients.

Secondly, a sharp decline in the reproductive capacity of the population in relation to the reserves of natural nutrients. Third, according to the results of the calculation measure of the number of rubble in the territory of the nursery in 2005 year, the highest figure reached up to 1225 head, as a result of which there was a shortage of natural nutrients in the territory;

2008-2009 years-an increase in the number of piles gradually. Decreased negative effects, decreased mortality and improved reproductive index;

2009-2011 years-a decrease in the number of deaths by 4,69 times with 169 deaths per species.

This was followed by a sharp increase in the number of deaths due to a decrease in the reserves of natural nutrients and a sharp decrease in air temperature during the winter season, which reduced the reproductive index to zero;

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2012-2018 years-increase in the number of gazelles: positive changes due to climatic factors, as a result of the accounting measure conducted in 2011, the number of gazelles decreased to 169 head, which affected the increase in the reserves of natural nutrients in the territory by 287, decreased the mortality rate, increased the reproductive index to medium and high;
2019 year – a slight decrease lack of natural nutrient reserves;
2020-2021 year-a little climb. According to the results of the general accounting measure of the number of animals conducted in this year, 1075 head gazelles were taken into account: 44% of female gazelles, 41% of male gazelles, 15% of young gazelles in the period of growth were found in the population of gazelles. Figure 1. The number of rubble in the nursery varies over the years 1977-2021.

Conclusion

As the main factors affecting the change in the number of populations of rubble in the conditions of semi-captivity, according to the degree of exposure to their population, the following can be cited.
- Amount of natural feed resources;
- Additional nutrition with constant monitoring of the current state of the territory's natural nutrient reserve;
- Maximization or reduction in the number of species multiplied in a closed area;
- Climatic factors (low or high annual precipitation, high summer temperatures or low winter temperatures), etc.

Until now, extensive research has been carried out on the changes taking place in the population of gazelles that are multiplying in the conditions of semi-captivity in the nursery, but it is natural that the changes taking place in recent years in relation to climate factors do not affect the way of life of gazelles that are multiplying in the nursery. Taking these into account, it is possible to carry out modern field research on the basis of the changes taking place in the population of rubble multiplied by the conditions of semi-captivity in the nursery, through which it is possible to develop a large-scale set of measures that will have to be taken in order to maintain the stability of the population in.

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