

National Report of the Republic of Tajikistan on conservation and restoration of the Bukhara Deer (*Cervus elaphus bactrianus*)

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The Republic of Tajikistan, as a Signatory to the Bukhara Deer (*Cervus elaphus bactrianus*) Memorandum of Understanding (MoU), has performed during the reported period a number of activities aiming at conservation of the species.

The main natural population of the Bukhara Deer in Tajikistan remains in the sanctuary “Tigrovaja balka”, in riparian forests of the right bank of the Pyandj River and in the border area with Afghanistan on the territories of the Farkhorskiy and Khamodoniyskiy districts of the Khatlon oblast. Other small populations of the Bukhara Deer are preserved in zakazniks “Dashti Jum”, “Sarikhosor” and “Zeravshanskiy”.

The sanctuary “Tigrovaja balka” was organized in 1938 for restoration and preservation of the riparian ecosystems in Tajikistan. It is situated on the floodplain of the river Vakhsh and extends to the river Pyandj, along which lies the national border of the Republic of Tajikistan with Afghanistan. The total area of the sanctuary is more than 49 700 hectares; its extension from the North to the South is about 54 kilometers with the width being about 10-15 kilometers. The distance from the city Dushanbe to the sanctuary is about 160 km. From the administrative perspective the territory of the sanctuary belongs to three districts of the Khatlon oblast (Djilikulskiy, Kumsangirskiy and Kabodienskiy).

Ripariantugai forests cover around 24.000 ha of the sanctuary and it is the only place in the world with preserved primeval riparian formations in large areas. These are the world’s only desert-riparian reserve zones of dry subtropics of the Central Asian type for preservation of the riparian plant complex and the animals living in it: the Bukhara Deer (*Cervus elaphus bactrianus*), pheasant (*Phasianus colchicus*), striped hyena (*Hyaena hyaena*), Goitered gazelle (*Gazella Subgutturosa*), gray monitor lizard (*Varanus griseus*) and many species of waterbirds.

The sanctuary represents the typical riparian ecosystem. Some fragments of water-loving riparian forests (*PopulusPruinosa*, *ElaeagnusTamarixLaxa*, *PhragmitesCommunis*) are well preserved in the lower stream and deltas of Vakhsh and Pyandj rivers. Typical for riparian ecosystem species of mammals are: the nutria (*Myocastorcoupus*), wild boar (*SusScrofa*), common otter (*LutraLutra*), wolf (*Canis Lupus*), jungle cat (*FelisChausoxiana*), Indian porcupine (*HystrixLeucuraStaunini*), red fox (*VilpesVilpes*), badger (*Melesmeles*), common jackal (*Canisaureus*), weasel (*Mustrelanivalis*), short-tailed Bandicoot rat (*NesokiaIndica*), Turkestan Rat (*RattusRauoides*), Grebenshchikov gerbil (*Merionestamariscinus*), the northern mole vole (*Ellobiustalpinus*), tolai hare (*Lepus Tolai*), long-eared hedgehog (*Hemiechinusauritus*), common pipistrelle (*PipistrellusPipistrellus*), Asian particolored bat (*VespertilioSerotinus*) and others.

According to the information of the State Agency for Protected Areas (SAPA), the population of the Bukhara Deer in 2011 is equal to 270 animals. However, independent experts assessed the number of the Bukhara Deer in the sanctuary “Tigrovaja balka” to be around 130-140 animals, which is lower than the official figures from SAPA. Table 1 shows the population dynamics of the deer over the given period.

Table 1. Population dynamics of the Bukhara Deer in the sanctuary “Tigrovaja balka” over the period from 2006 till 2011.

№	years	Unit of measurement	number	Expert assessment
1	2011	animals	270	130-140
2	2010	animals	270	
3	2009	animals	145*	
4	2008	animals	256	
5	2007	animals	251	
6	2006	animals	245	

**Note. Due to the unusual cold and prolonged severe weather in winter 2007-2008, animals died in the sanctuary “Tigrovaja Balka” and the number of the Bukhara Deer has decreased from 256 to 145.*

Our studies during May-July 2011 showed that at the moment riparian forests remain in good condition and the number of Bukhara deer is stable. On the way of the survey, we have found also many species of birds and mammals typical for riparian ecosystems.

Additional information on the distribution and population of the Bukhara Deer in Tajikistan in its other natural habitats and places of the past introductions was received from the State Agency for Forestry and is given in table 2.

Table 2. The number of Bukhara Deer in its other natural habitats and places of the past introduction, 2011.

№	Name of the Bukhara Deer’s habitat	Unit of measurement	number
1	the right bank of the Pyandj River on the territory of the Farkhorskiy district	animals	20-24
2	the right bank of the Pyandj River on the territory of the Khamodoniyskiy district	animals	16-18
3	Zakaznik “Dashti Jum”	animals	6-7
4	Zakaznik “Sarikhosor”	animals	12-15
5	Zakaznik “Zeravshanskiy”	animals	20-24
Total			74-90

In the frame of the MoU, signed in Dushanbe between the Secretariat of the Convention, the republics of Tajikistan, Uzbekistan, Kazakhstan and Turkmenistan and the International Fund for Nature (WWF), WWF office in Moscow has supported a number of small-budget projects aimed at maintaining of the sanctuary “Tigrovaja balka”. The list of the projects is given below:

1998 –Technical support to the sanctuary “Tigrovaja Balka”: bicycles, field binoculars and special clothing;

1998-2000 - technical support to the sanctuary “Tigrovaja Balka”: batteries for fire tracks, camera and camcorder;

2002 – Trainings on environmental education for school pupils and students living around the sanctuary “Tigrovaja Balka”;

2004 – eco-camp for school pupils living around the sanctuary “Tigrovaja Balka”;

2006 – International Youth Forum on Protected Areas (PAs)

2007 – Complex management of the pool of the Vakhsh River and management of the nature of the sanctuary “Tigrovaja Balka”.

In recent years, under the WWF project in the sanctuary “Tigrovaja Balka” a model has been created on sustainable management of fresh water ecosystems of the Amu-Darya basin. A survey of the territory was conducted and the measures to improve water supply to the ecosystems of the sanctuary were identified. These measures include clearing of overgrown natural canals, construction of a canal to supply fresh water to bypass dams, construction of pump stations, etc. Several of these measures were carried out with support from WWF Netherlands, the Disney Foundation, and Minnesota Zoo. Through the project, the water level in almost all lakes of the sanctuary has considerably increased which positively influences the condition of the riparian ecosystem and contributes to the restoration of fish fauna in the lakes.

Existing problems:

- Although the population of the Bukhara Deer has stabilized to this moment, it is still insufficient for the sustainable existence of the species in the wildlife; there is no systematic monitoring of the Bukhara Deer population numbers in the sanctuary “Tigrovaja Balka” and other natural habitats in Tajikistan;
- Lack of the necessary material and technical base of sanctuaries and forestries, which does not allow conducting required set of actions for protection, implementation of biotechnical measures, research and monitoring.

Recommendations:

- Development of the National Strategy and an Action Plan on the conservation and restoration of the population of Bukhara Deer in Tajikistan to an optimum;
- In order to maintain and increase the number of Bukhara Deer, it is appropriate to organize captive maintenance in the sanctuaries “Ramt”, “Dashti Jum” and natural park “Sarikhosor”;
- Develop a program of cooperation for the conservation of the Bukhara Deer between sanctuaries Zeravshanskiy (Tajikistan) and Zaravshan (Uzbekistan);
- Construction of fences at the locations of the sanctuary “Tigrovaja Balka” near the population centers;
- Restoration of jaeger cordons;
- Rehabilitation of the Research Center of the sanctuary “Tigrovaja Balka” and purchasing the laboratory equipment;
- Renewal of a permanent monitoring of population dynamics of Bukhara Deer throughout its habitat.