PROPOSAL FOR INCLUSION OF SPECIES ON THE APPENDICES OF THE CONVENTION OF THE CONSERVATION OF MIGRATORY SPECIES OF WILD ANIMALS

A. PROPOSAL: Inclusion of the Bukhara deer *Cervus elaphus bactrianus* Lydd on Appendix I and II.

B. PROPONENT: The Government of Tajikistan.

C. SUPPORTING STATEMENT:

1. Taxon:

1.1	**Classis**:	Mammalia
1.2	**Order**:	Artiodactyla (s/o Ruminantia)
1.3	**Family**:	Cervidae
1.4	**Genus /Species/ subspecies**:	*Cervus elaphus bactrianus* Lydekker 1900
1.5	**Common name(s):**	Bukhara deer, bactrian deer, bactrian red deer, bactrian wapity, cerf de bactriane, cerf du Turkestan, cerf rouge du Turkestan, cerf elaphe du Turkestan, ciervo bactriano

2. Biological data

2.1 Distribution (current and historical)

The historical range of the bukhara deer (BD) included all river valleys of Amudarya (Afghanistan - Tajikistan-Uzbekistan-Turkmenistan) and Syrdarya (Uzbekistan-Kazakhstan), and all their river basins from the upper reaches to the Aral; Zarafshan (Uzbekistan); Tedjen and Murgab in the West (Turkmenistan), and Ili in the East (Kazakhstan). By the end of 60ies, the BD was extinct in the major part of the area (the river valleys of Syrdarya, Tedjen, Murgab and Ili), and the lower reaches of Amudarya. The major remaining populations could be found in the upper reaches of Amudarya (Tajikistan), while some small groups remained in the middle reaches of Amudarya.

Some additional populations were subsequently established through reintroduction of animals in the lower reaches of Amudarya, Ili, Zarafshane (Tajik part) and introduction in the mountains of Tajikistan. After the collapse of the USSR and the break out of civil conflicts in Tajikistan some of the populations were practically eradicated.

2.2 Population (estimates and trends)

By the end of the 80ies, the total population of the species counted no more than 900 animals, of which around 600 in natural populations, and 300 in newly established ones, as a result of reintroduction and introduction. Special investigations had shown that the carrying capacity of habitats was about 4000 animals. Since 1990-91 a serious decrease of BD populations occurred. In 1995 only the survival of 350-400 animals in numerous small isolated groups could be proved. Targeted conservation action since 1999 (WWF project) allowed eventually reverting the trend, and a census undertaken in 2003 has shown that the total population has recovered to about 800 – 900 BD in 4 range states.

2.3 Habitat (short description and trends)

As the only true deer species in the arid zone of Central Asian region, it was always strictly connected with riparian forests of river valleys (stands of *Tamarix, Elaeagnus, Poplar, Hippophae,* communities of *Phragmites* and *Erianthus)*. BD can inhabit all types of riparian forests, and even homogenous brushes of reeds on salinated lands. In spring BD use to leave river valleys for the deserts, these latters representing however only a marginal habitat (BD stay in the desert from some hours to some days

for grazing, up to some weeks in case of extreme waterfloods). Riparian forests (tugais) are the main ecosystem of the river valleys, while river basins as a whole are largely occupied by a variety of desert types (e.g. sand, clay).

2.4 Migrations

Natural migration of the BD is very local, and is mainly connected with the choice of preferred habitats. However all deer habitats are generally connected with narrow river valleys, and rivers do not constitute an obstacle for deers. With the collapse of the USSR, the major rivers of Central Asia became state borders. Local groups of BD, which inhabit small spots of riparian forests, tend to expand their areas by migrating both along and across the rivers. Such types of migrations mainly occur in summer (during waterfloods) and in autumn, during the rutting season, when young stags are constrained to leave their native group by adult dominant stags. Thus at least 30 - 50% of all populations are migrating every year, crossing state borders.

3. Threat data

3.1 Direct threat to the population

BD was driven to extinction in the major part of its historical range in the recent past (first half of 20th century – western part of the area, 1962 – in Syrdarya river valley). The main cause for that was straight elimination as a consequence of unregulated hunting. Similar situations occurred in the beginning of 1990ies, when major populations of BD in Tajikistan dramatically declined (Tigrovaja balka) or even were practically eradicated (Ramit). Although the species is included in the Red data books of all the range states, poaching continues to be a very serious threat. This is particularly important in the areas of migration. Groups living within Protected Areas (PA) enjoy strict protection, and can therefore recover. Protected areas cover on the other hand only some spots of riparian forests. Increased competition for resources and reproduction within the populations induces the movement of animals to other areas. Surveillance being not well organized outside protected areas, migrating animals moving outside the limits of protected areas, often in a bordering country, become under serious threat of poaching.

3.2 Habitat destruction

In general, riparian forests are represented by narrow strips and separate areas along the desert river valleys. Because these are the most fertile lands available for cultivation, tugai forests are largely logged and substituted by agricultural lands. The remaining areas of tugais (reduced to less than 10 % of the historical coverage along Amudarya even under the protection of nature reserves) suffer from logging, grazing, cultivation of hayfields, and collection of medicinal plants. Existing systems of irrigation, in taking water from the rivers, prevent the natural flood of floodplain forests, causing their degradation. Riparian forests of Syrdarya are in a better condition, as the existence of suitable land for cultivation in the steppe zone of Kazakhstan reduces the pressure on river valleys for agriculture. Following the break of the USSR riparian forests in Kazakhstan has suffered seriously from illegal logging, mainly for local consumption for heating and cooking to compensate failure in gas supply in many areas of the country. This problem was however overcome with the re-establishment of gas supply for the personal needs of local population, and natural recovery of riparian forests can presently be registered along Syrdaria.

3.3 Indirect threat (e.g. reduction of breeding success by pesticide contamination)

Although there are no data available on pesticide contamination, this is however quite probable, as all riparian forests are bordering with cotton fields.

3.4 Threat connected especially with migrations

As described in 3.1, major poaching occurs outside the protected areas when migrating animals are crossing the river and arrive to new sites in the neighbouring country.

3.5 National and international utilisation

Recently BD are utilised only as game animals (meat for local use; trophies). Potentially velvets of BD can be used for medicine (similarly to sika deer and Siberian wapiti): this allows considering deer farm development to be one of the ways of combining deer conservation and profitable utilisation.

4. Protection status and needs

4.1 National protection status

BD is included in the Red data Books of all range states as endangered and is officially protected by national laws of all countries in which it occurs (no data for Afghanistan).

4.2 International protection status

BD is classified as Vulnerable by IUCN (1994) although the projected decline of population was more then 50% over 10 years between 1990 and 1995. BD is listed in the Appendix II of CITES.

4.3 Additional protection needs

Progress has been made in reducing poaching, especially with the support of the WWF project in the period 1999-2003 (the project is approved till 2006). Still additional support for existing protected areas is needed, as well as ecological education of different target groups. Transboundary system of Protected Areas and system of anti-poaching patrolling need to be established. Special measures ensuring deer habitats restoration (regular waterfloods in riparian forests) are really critical. Reintroduction of BD in suitable habitats in the limits of its historical range is very important (initial activities started in the frame of WWF project in Syrdarya and Zarafshan river valleys). Deer farms can be an effective tool combining deer conservation (reserve livestock) and sustainable utilisation. All protection needs are listed in the BD action plan in details.

5. Range States

Kazakhstan, TAJIKISTAN, Turkmenistan, UZBEKISTAN (+Afghanistan?).

6. Comments from Range States

7. Additional remarks

8. References

Full references on BD in Russian was prepared in the frame of WWF and published in 2000 (Biodiversity conservation in the limits of protected areas of Uzbekistan) and includes 408 publications in Russian and 39 in English.

Some of the references (published in English) are listed below:

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Annex 1
Results of BD census in 2003

Turkmenistan:

AMU-DARYA ZAPOVEDNIK :

Massifs of riparian forest /clusters of zapovednik	Area (thous. ha)	Number of deer
Gorelde	2.2	20-25
Kabakly	1.2	2-3
Kyzkala	0.4	1-3
Mitchurinskii	0.7	4-5
Kenderli	0.8	3-5
Nargyz, Aikhon	1.2	8-12
Subtotal		~ 50

- about 40 - 50 in the southern population – Koitendag etrap - Tsharshanga;

Total in Turkmenistan more then 100 BD

Uzbekistan:
- Zarafshan zapovednik (30 km from Samarkand- pen group – preparation for reintroduction) –17;
- Kyzylkumskii zapovednik (middle Amudarya) – about 100;
- Badai-Tugai zapovednik – about 150;
- Riparian forests of Amu-Darya delta - ~ 20 (spontaneous expansion from Badai-Tugai);
- Southern part of Uzbekistan Surhandaria region (border with Afganistan – about ~ 50 (50-70) animals;

Total in Uzbekistan – 330-350 BD

Kazakhstan
- Karatchingil - > 200;
- Turkistan (pens – reintroduction site) – 7

Total in Kazakhstan – 210-250 BD

Tajikistan
- Tigrovaja balka zapovednik ~ 180
- Ramit – 0
- Sarykhosor ~ 20
- Zarafshan (Tajik side of the river valley) ~ 25
- Right bank of Pyandj (border with Afganistan) – some deer (?)
- Shakhrinau (farm) - 9

Total in Tajikistan – about 200-250 BD