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

A. **PROPOSAL:** Inclusion of the Saiga Antelope (*Saiga tatarica tatarica*) on Appendix II

B. **PROPONENT:** Government of the Republic of Uzbekistan

C. **SUPPORTING STATEMENT:**

1. Taxon

1.1.	Classis	Mammalia Linnaeus
1.2.	Ordo	Artiodactyla Owen
1.3.	Familia	Bovidae Gray,1821
1.4	Genus or Species	Saiga Gray, 1843
	Subspecies	Saiga tatarica tatarica (Linnaeus, 1766)
1.5.	Common names**(s)**	Saigak, Saiga

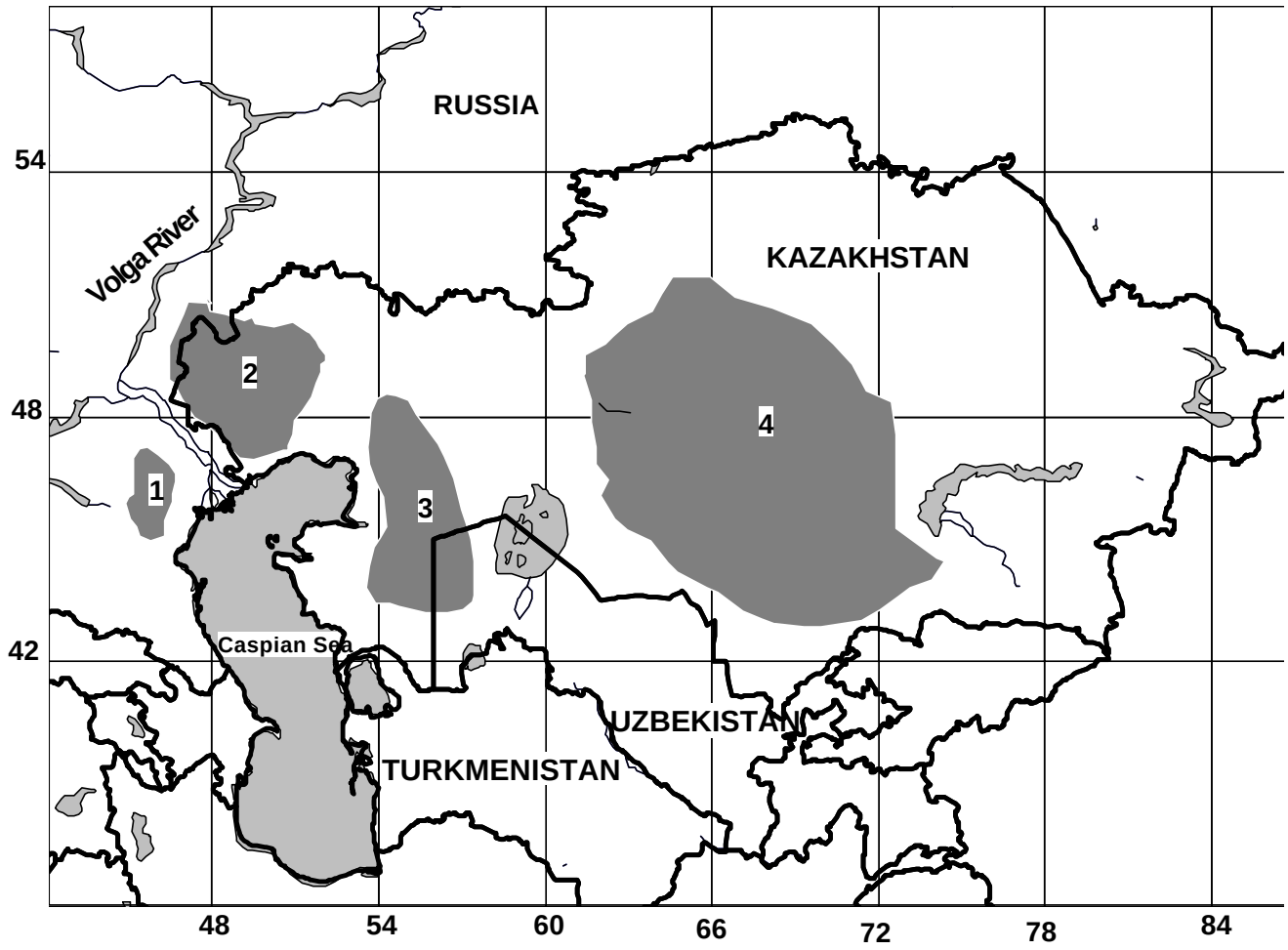
2. Biological data

2.1. Distribution (current and historical)

Currently there are three populations of the subspecies *Saiga tatarica tatarica* in Kazakhstan - the Ural, Ust'-Urt and Betpakdala, one of *S. t. tatarica* in Kalmykia, Russia. Up to early 1960 there was a population of *Saiga tatarica* also in China.

In the Quaternary Period the saiga antelope occupied an area far more extensive than its present range. The animal's bones have been found in Ice Age deposits scattered from the British Isles to Alaska and the Northwest Territories of Canada, all the way to the New Siberian Islands in the north and the Caucasus region in the south (Sokolov & Zhirnov, 1998). Up through the 17th and 18th centuries A.D., the animal still had a broad range in Europe, reaching as far as the Carpathian foothills in the west and the environs of Kiev in the north (Sokolov & Zhirnov, 1998). By the late 19th century, however, the blitzkrieg of agricultural development nearly wiped it from the face of the continent, leaving but a few sparse flocks on the plains along the northwestern shore of the Caspian Sea. In the middle of the 19th century, although already gone from the plains west of the Don, the species was still quite plentiful in the Kalmyk steppes.

Figure 1. The current range of the saiga antelope, showing the approximate range area of each of the populations, together with country borders and latitude and longitude. 1. Kalmykia, 2. Ural, 3. Ustiurt, 4. Betpak-dala (all *Saiga tatarica tatarica*), 5 - Mongolia (*Saiga tatarica mongolica*, 5a - Shargyn Gobi population, 5b - Mankhan population) (From Milner-Gulland et al., 2001)



2.2 Population (estimates and trends)

During the period between 1980 - 1994 the total numbers of Saiga antelope fluctuated around 670,000 - 1,251,000 animals; the Kamykian population - from 142,000 to 430,000; the Ural - from 40,000 to 298,000; Ust'-Urt - 140,000 to 265,000; Betpak-Dala - 250,000 to 510,000; and the Mongolian - from 125 to 1300. All four populations of *S. t. tatarica* show dramatic population declines from 1998 onwards. Annual decline rate for the total *S.t. tatarica* population in 1998-1999 was about 35 % (63 % for the Kalmykian, 19% for the Ural, 19 % for the Ust'-Urt and 47 % for the Betpakdala populations), and in 1999-2000 it increased up to 56 % (53%, 79%, 42%, 77% and 56 % consequently). The Betpak-dala population has suffered particularly heavy declines, with the current population numbers being 4% of the 1980-90 population estimate. The Ural and Kalmykia populations are similar in their status, with populations currently at 15-20% of their 1980s level and showing rapid declines between 1998 and 2001. For example, an aerial survey in May 2001 yielded an estimate of only 17,800 saigas, remaining in Kalmykia, indicating that the population is continuing to decline. The Ust'-Urt population is also declining rapidly. The Mongolian sub-species is in a perilous state because of its small population size, but there is no evidence for a decline (Luschekina et al., 1999; Milner-Gulland et al., 2001). (See Table 1 in Appendix)

2.3 Habitat

The main habitats of the *Saiga tatarica tatarica* antelope are the plains in dry steppe and semi-desert natural zones of Kazakhstan and Kalmykia. It avoids any areas with dense bushes and thickets along water bodies, but could use them as a shelter during severe winters particularly in days with strong wind. During the dry season saigas could visit irrigated crop fields for feeding.

2.4 Migrations (kinds of movement, distance, proportion of the population migrating)

In Saiga populations there were observed some different types of migrations: intraseasonal and interseasonal. The last are rather regular and take place in spring and autumn, and usually they have the south-north direction. Their length depends on the weather and forage conditions of the current year. Usually for the Kalmykian population the length of such migrations is about 150-300 km, for Betpakdala - 600-1200 km, Ust'-Urt - 300-600 km, Ural - 200 -300 km.

3. Threat data

3.1 Direct threat of threat of the population (factors, intensity)

All the saiga populations have suffered from habitat degradation, poaching and disturbance. Droughts or severe winters, diseases and predation pressure from wolves can also act as factors of threat of saiga populations (Bekenov et al., 1998), however these are unlikely to be major causes of the declines. There is no evidence of mass mortality from disease in any population. The last few years have seen the drought in Kalmykia, which may be a contributory factor. However, the climate in Kazakhstan has been good for saigas since 1994. The most likely explanation of the dramatic recent declines is severe and ongoing poaching pressure. As only males bear horns, poaching has led to a dramatic drop in the proportion of adult males in the population.

3.2. Habitat destruction (quality of changes, quantity of loss)

Among main reasons for the saiga's decline are overgrazing of its pastures, general habitat degradation and construction of roads and canals. Before 1991 numbers of livestock, particularly sheep increased enormously and the rangelands, particularly in Kalmykia formerly grazed only in winter, have been used intensively throughout the year. Consequently the quality of the pastures for saiga has deteriorated sharply. Also large areas of rangeland have bee lost through ploughing for cultivation and through short-term irrigation projects. In many cases former areas of good quality steppe and semidesert rangeland have been replaced by tracts of loose sand and saline marches. In Kalmykia, between 1953 and 1959, areas of blown sand comprised no more than 2-3%, but by 1985 they comprised 33%. This process for desertification has not been stopped. Pastures have also deteriorated from the negative impacts associated with the construction of a network of irrigation canals, highways and wire fences (for protection of so-called "cultural pastures"). These obstacles have interrupted saiga migration routes and sometimes lead directly to increased mortality. There is evidence that saiga populations in some regions have become sedentary or semi-sedentary and the lack of good seasonal pastures, along with the effects of increase disturbance, have lowered fecundity and increased mortality. Notwithstanding the preceding description of the saiga's decline relative to habitat, the careful evaluation and analysis of the impact of different factors on the habitat's degradation in different parts of the saiga's range up to now has not been examined systematically and should be considered a priority area for future actions directed to saiga conservation at national and regional levels.

3.3 Indirect threats

Indirect threats include fragmentation of range due to agriculture development, irrigation and transportation constructions.

3.4 Threats especially associated with migrations

During long distance migrations saigas appeared at territories where it is difficult to organize their proper protection. Data shows that when saiga herds from Kalmykia migrated in winter to Daghestan (North Caucasus) it was poached there drastically. The same observations are applicable for migrating saiga across frontiers between Kazakhstan and Uzbekistan and Turkmenistan.

3.5 National and international utilization

National - meat. The recent social and economic changes must have worked to make it much heavier. A dramatic decline in livestock numbers beginning from 1992 has certainly increased the interest in saiga as a source of meat. Indeed, its meat can now be bought on food markets even in the capital of Kalmykia as well as in different parts of Kazakhstan (pers. obs. by authors; Lundervold, 2001; Pereladova & Lushchekina, 2001).

International - horns. In fact, its rise was already observed in the last years of the Soviet Union's existence, when the state monopoly on international trade was dissolved and the customs regulations became lax, stimulating a massive illegal hunt for saiga horns and their subsequent transportation to the Oriental markets, to be used for medicinal purposes. By the turn of the 1990s, one kilogram of its horns (~4 pairs) could be sold in Kalmykia for $30. Because this is a great deal of money by local standards, the amount of poaching in those years is believed to have reached no less than 15,000 to 20,000 animals a year (Sokolov & Zhirnov, 1998). For another thing, the fact that the proportion of adult males in its population has been steadily declining from 1997 makes it plausible that poaching for horns has grown more intense as well. Female saiga are hornless. In support of this suggestion, it should be noted that their price in Kalmykia has by now reached as much as $100 per kilo, a great incentive for the impoverished population of the pastoral regions.

4. Protection status and needs

4.1. National protection status

Up to now protected as a common hunting animal: regulation for opening hunting seasons and introduction of hunting bans when there are some data on low numbers of saiga population. It was applied for many years before the 1950s last century and repeated again recently in Kalmykia and Kazakhstan.

4.2. International protection status

International concern about the plight of the saiga antelope was first raised in 1995 (Chan et al., 1995; New Scientist, 1995). The saiga was listed as Vulnerable on the 1996 IUCN Red List, with the Mongolian sub-species listed as Endangered (Baillie & Groombridge, 1996). The status of the species as a whole and the nominate sub-species were revised to Lower Risk (conservation dependent) for the 2000 Red List, because there was no evidence for declines in Kazakhstan (Hilton-Taylor, 2000). However, the IUCN-SSC Antelope Action Plan (Mallon & Kingswood, in press) lists the species as Endangered on the basis of the information presented here. Heightened international awareness about the plight of the saiga led to a CITES Appendix II listing in 1995; proposals to list the Mongolian subspecies on Appendix I were rejected because of difficulties in distinguishing horns from this subspecies in trade. Since Kazakhstan's accession in 2000, all the saiga range states are now CITES parties.

4.3 Additional protection needs

Special protected areas for lambing/rutting places should be established at the all territories inhabited by saiga populations.

Given that poaching for domestic consumption is now a major threat, strengthening of anti-poaching teams is in big demand. Presently the key requirement is funding of national conservation actions, rather than improving the international trade control.

5. Range States

Kazakhstan, Russia, Uzbekistan, Turkmenistan

6. References

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Appendix

Table 1. Population estimates for the saiga antelope. The total estimated saiga population size (rounded to the nearest thousand animals) is given for those years in which all four populations of the nominate subspecies were surveyed. Numbers in bold are dubious as they are extrapolated from counts of 50% of the range area (estimate = 2x actual count), and those in italics are the product of vehicle surveys. Vehicle surveys are not easily comparable to aerial surveys, and are much more prone to error and bias (and particularly to underestimating population size). All other values are total counts from aerial surveys, hence confidence intervals are not given. Data up to 1997 for Kazakhstan are from Bekenov et al. (1998) and for Mongolia from Lushchekina et al. (1999). Kalmykian data up to 1994 are from Sokolov et al. (1998). Data after these dates are from surveys carried out by the following organisations: Kalmykia - the Department for Conservation, Control and Management of Game Animals, the Central Laboratory for Hunting Management and the former Saiga Research Centre; Kazakhstan - the Institute of Zoology of the Kazakhstan Ministry of Education and Science; Mongolia - WWF-Mongolia and the Institute of Ecology and Evolution, Moscow, Russia, and are reproduced with permission. (From Millner-Gulland et al.,2001)

)	**Populations**					**Total**
Year	**Kalmykia**	**Ural**	**Ust'-Urt**	**Betpak-dala**	**Mongolia**	

1980	380,000	120,000	170,000	400,000	-	1,070,000
1981	430,000	160,000	190,000	470,000	*750*	1,251,000
1982	385,000	180,000	190,000	480,000	*925*	1,236,000
1983	280,000	150,000	180,000	440,000	-	1,050,000
1984	265,000	40,000	190,000	340,000	*125*	835,000
1985	222,000	50,000	190,000	400,000	-	862,000
1986	200,000	70,000	150,000	250,000	-	670,000
1987	143,000	100,000	140,000	300,000	-	683,000
1988	157,000	90,000	207,000	368,000	*1700*	824,000
1989	150,000	135,000	265,000	323,000	-	873,000
1990	160,000	138,000	202,000	361,000	-	861,000
1991	168,000	236,000	232,000	357,000	-	993,000
1992	152,000	298,000	254,000	375,000	-	1,079,000
1993	148,000	250,000	216,000	510,000	*300*	1,124,000
1994	142,000	274,000	254,000	282,000	*300*	952,000
1995	220,000	-	-	212,000	*1300*	-
1996	196,000	-	**214,000**	248,000	-	-
1997	*259,000*	-	-	-	*1300*	-
1998	150,000	*104,000*	246,000	**120,000**	-	620,000
1999	55,000	84,000	**200,000**	***64,000***	-	403,000
2000	26,000	17,500	116,000	*15,000*	*3000*	178,000

Table 2 Rates of decline of populations of *Saiga tatarica tatarica*. The mean population size in 1980-90 is calculated from Table 1, and the 1998-2000 population estimates are given as a proportion of this. The rate of decline for 1998-1999 and 1999-2000 is also shown. The 1980-90 mean population size for Kalmykia is multiplied by 0.58 to correct for the difference in time of year between the two sets of surveys. (From Millner-Gulland et al.,2001)

	Kalmykia	**Ural**	**Ust'-Urt**	**Betpak-dala**	**Total**
Mean 1980-90	146,200	112,000	188,500	375,600	823,300
Pop size as a proportion of 1980-90 mean					
1998	1.03	0.93	1.30	0.32	0.67
1999	0.38	0.75	1.06	0.17	0.43
2000	0.18	0.16	0.62	0.04	0.19
Annual decline rate					
1998-1999	63%	19%	19%	47%	35%
1999-2000	53%	79%	42%	77%	56%