AMENDMENTS TO APPENDICES I AND II OF THE CONVENTION

Other Proposals

A. PROPOSAL

To include *Saiga tatarica* in Appendix II and the Mongolian population of *Saiga tatarica* in Appendix I.

B. PROPONENT

The United States of America.

C. SUPPORTING STATEMENT

1. Taxonomy

11. Class: Mammalia

12. Order: Artiodactyla

13. Family: Bovidae

14. Genus: *Saiga*

Species: Two subspecies: *Saiga tatarica tatarica* and *Saiga tatarica mongolica*

15. Common Names:

English:	Saiga antelope
French:	Saïga
Spanish:	
German:	Saiga
Russian:	Сайга

16. Code Numbers:

2. Biological Data

21. Distribution: *Saiga t. tatarica* occurs in two major populations, one in Kazakhstan and a second south of the Volga River and northwest of the Caspian Sea in the Kalmykian Republic, Russian Federation. *Saiga t. mongolica* occurs in the Shargyn Gobi Desert and the Khar Us Nuur area in Mongolia, being isolated from *S. t. tatarica* by the Gobi Altai range.

22. Population: In the Pleistocene period, saiga antelope grazed the steppes of Europe and Asia, from England through Germany and Russia as far as Siberia, Kamchatka and Alaska. In the 16th and 17th centuries, the lower hills of the Carpathian Mountains and the Bug River were their western limit.

Drastic declines in saiga populations began during the nineteenth century, when large numbers of horns were exported to China for use in medicinal preparations. By the end of World War I, the saiga antelope was near extinction. By 1923, saiga hunting had been prohibited in the Soviet Union, and the establishment of agricultural collectives, starting in the late 1920's, resulted in dramatic changes in land-use systems that resulted in the abandonment of some arid regions, and the recovery of saiga began. By the late 1950's, the population in Kazakhstan had increased to perhaps 2,000,000, while the population in Kalmykia reached a peak of approximately 800,000 in 1958 (Teer, 1991). In the last two decades saiga populations have begun to decline again. Since about 1987, they have fluctuated around 150,000 in Kalmykia, while in Kazakhstan the population maintained its numbers at about 700,000 to 800,000 in recent years, dropping to 400,000 to 500,000, perhaps due to severe winter mortality in 1993. Only the essentially disjunct populations in Kalmykia and Kazakhstan remain of *S. t. tatarica* (Teer and Lindzey, 1994).

At the beginning of the 20th century, *Saiga t. mongolica* ranged extensively throughout Mongolia, occupying the great lakes lowlands and the lake valley in western Mongolia. By the end of the 1950's, its numbers had begun to decline, reaching a low of approximately 300 in 1978. The hunting of saiga has been prohibited in Mongolia since 1953. In the early 1980's, a gradual increase in numbers began, reaching an estimated 1400 in the Shargyn Gol population, but remaining very low, at approximately 125 animals, in the Khar Us Nuur population (Adyasuren, 1994).

23. Habitat: The saiga is adapted to living in open steppe habitats in arid and semi-arid ecosystems from sea level to approximately 1500 meters elevation. In Mongolia, saiga occur in perhaps more arid conditions in the northern valley of the Mongolian Altai Mountains at an average elevation of 1000-1900 meters. These are treeless environments, dominated by grasses and low shrub vegetation.

24. Life History: The saiga is a nomadic, herd species, although not strictly a migratory animal. In general, its summer pastures are in the northern parts of its range, where births occur, with the saiga penetrating further north in drought years. Later in the year, it gradually moves south in loose aggregations of both sexes to areas in which it overwinters and mates (Milner-Gulland, 1994). Mongolian saiga do not migrate long distances, staying in the same relative area, but seasonally change their pastures (Adyasuren, 1994).

    The saiga's most striking adaptation is its large proboscis with its large nasal chambers that are supplied with blood vessels and mucus glands with which it filters sand and dust, and warms and humidifies air it breaths. Only the males have horns; they become sexually mature at about 19 months. Females are smaller and reach sexual maturity at around 8 months. Saiga are polygamous; females exhibit a high level of fertility, with twinning the rule. It has been estimated that 95% of adults and 80% of young females conceive in an average year (Teer, 1991).

3. Trade Data

There is a long history of use of saiga horn in Chinese traditional medicines. Saiga horn is used most often in medicines in combination with other horn, particularly rhinoceros horn. In such combinations it is used for seriously ill patients as a sedative, an anticonvulsive, and an antipyretic. As a traditional medicine, saiga horn is said to remove heat from the liver, whereas rhino horn is supposedly better for removing heat from the blood. Saiga horn may also be used alone to treat strokes and fever in some illnesses (Milner-Gulland, 1994).

It is reported that saiga horn is worth up to US$2,000 per kilogram in Hong Kong (Telecky, 1994), although other sources mention much lower values, in the range of US$400-600 per kilo (about three pairs of antlers) (Teer, 1991). According to the Kalmykian Department of Hunting, twenty five tons of saiga horn was exported from Kalmykia in 1991-1992, although the source was said to be old stocks and horns from males that died from natural causes (Knoroz, 1994).

31. National Utilization: In the recent past (prior to 1989) saiga meat comprised 14% of game meat production in the Soviet Union (Milner-Gulland, 1994).

32. Legal International Trade: Saiga were legally harvested in Kalmykia starting in 1951 for meat, skins, and horns. This legal harvest reached a peak in 1978 with a take of approximately 201,000 animals, but has since declined. Commercial hunting has been prohibited since 1987 in Kalmykia (except for 1990 when 11,000 animals were taken for commercial purposes). Only sport hunting is now allowed in Kalmykia (in 1993, 98 animals were taken in this manner) (Knoroz, 1994). In Kazakhstan, saiga have also been harvested commercially since the 1950's, peaking in 1975 with the take of over 500,000 animals (although no data were available from 1991 to the present, coinciding somewhat with the independence of Kazakhstan) (Teer and Lindzey, 1994). When border controls between Russia and China were liberalized in 1988, saiga horn could be legally exported to China for the first time since 1921. Also, at that time, private cooperatives were allowed to set up trade, and in 1989 ten cooperatives traded out of Alma-Ata, Kazakhstan, exporting 10 tons of horn to Singapore. The resulting intense hunting pressure along with high prices for horn resulted

in the introduction of controls in 1990. Hunting was stopped in Kalmykia, and only three co-ops were allowed to legally hunt in Kazakhstan (Milner-Gulland, 1994).

33. Illegal Trade: The high price being paid for saiga horn in recent years appears to have stimulated an increase in the poaching of saiga. Anecdotal information suggests that poached horns are eventually transhipped to China through the Baltic States of Latvia, Lithuania, and Estonia (Teer, 1991). It is also suggested that illegal horn is smuggled across the border of Kazakhstan directly into China.

34. Potential Trade Threats: Although the saiga antelope is adapted to respond to unpredictable climatic conditions and mass mortality, this "boom-and-bust" strategy combined with heavy exploitation could have drastic negative results (Milner-Gulland, 1994). Males tend to maintain a harem of two to about twenty females during mating season, and the birthrate of males and females is about the same. The ratio of adult males to females tends to be skewed toward females, with males averaging about 18% of the population in Kalmykia from 1969 to 1993, with a low of 6.4% in 1992 (Teer and Lindzey, 1994). Since the principal commodity in international trade is the horn, which occurs only on the males, an uncontrolled harvest of males for horns could be particularly devastating to this species.

    Recently, because of some overlap in pharmaceutical properties, saiga horn has been suggested as a substitute for rhino horn in an effort to reduce the use of rhino horn in traditional medicines. If this substitution were accepted (it is felt that a substitution of saiga for rhino horn could be effective and accepted) and, as incomes in the Far East increase, the use of saiga horn and therefore the demand for it could increase rapidly. With the easing of border restrictions in the former Soviet Union, saiga horn supplies to consumers in the East would be expected to increase. Historical accounts indicate that before the social and agricultural changes of the 1920's and 1930's that stemmed from the Russian revolution, exploitation of the saiga for horn was high enough to threaten the survival of the species, and poaching is now reported to be more of a problem.

4. Protection Status

Harvest of saiga for the export of horns was stopped in Kalmykia in 1987, and sport hunting has been closed in six out of the last ten years (1984 - 1993) (Teer and Lindzey, 1994). The hunting of *S. t. mongolica* has been prohibited in Mongolia since 1953, and in 1987 the subspecies was registered in the Red Book of Mongolia. *S. t. mongolica* is listed as endangered under the U.S. Endangered Species Act of 1973.

5. Information on Similar Species

S. t. tatarica is larger than *S. t. mongolica* with larger head and horns (up to 38 cm long as compared to 22 cm in the latter subspecies). The protuberant nose, which in males swells during rut, distinguishes the saiga from other antelope (Schweiger, 1993).

6. Comments from Countries of Origin

The Mongolian Ministry of Nature and Environment supports inclusion of *S. t. mongolica* in Appendix I, and the Russian Ministry of Protection of the Environment and Natural Resources supports the inclusion of *S. t. tatarica* populations in Russia in Appendix II. Although *S. t. tatarica* was extirpated from China sometime in the Twentieth Century, the Ministry of Forestry of the People's Republic of China indicated that it supports an Appendix-II listing of this subspecies.

7. Additional Remarks

8. References

Adyasuren, Ts., Director, International Cooperation Department, Ministry of Nature and Environment, Ulaanbaatar, Mongolia, 1994. Letter and report on Mongolian saiga antelope, to Charles W. Dane, Office of Scientific Authority, U.S. Fish and Wildlife Service, April 5, 1994.

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Milner-Gulland, 1994. A population model for the management of the saiga antelope. Journal of Applied Ecology 31:25-39.

Schweiger, Richard, Environmental Investigation Agency, 1993. Letter and proposal to Dr. Charles Dane, December 1, 1993, and updated proposal by faxform of December 10, 1993.

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Telecky, Teresa M., 1994. Letter to Dr. Charles W. Dane, Office of Scientific Authority, U.S. Fish and Wildlife Service, March 14, 1994.