Other Proposals

A. Proposal

Inclusion in Appendix II of all populations of *Ursus arctos* not included in Appendix I or II.

B. Proponent

Denmark.

C. Supporting Statement

1. Taxonomy

11. Class: Mammalia

12. Order: Carnivora

13. Family: Ursidae

14. Species: *Ursus arctos*

Numerous subspecies of *Ursus arctos* have been described. However, Servheen (pers. comm., 1991) and Herrero (1988), co-chairs of the IUCN/SSC Bear Specialist Group, note that there is considerable uncertainty as to the true extent of subspeciation of *Ursus arctos*; in their view, purported subspecies are more appropriately treated as geographical units or populations.

The number of subspecies recognized in the Baltic States and the area constituting the Soviet Union is unclear. Based on the reported distribution for the subspecies referred to by Soviet experts as *U. a. leuconyx* (Severtzov, 1826) and the reported distribution of the Appendix I subspecies *U. a. isabellinus* (Horsfield, 1826), it is likely that these represent the same taxon/population. Other subspecies that have been described include:

- *Ursus arctos lasistanicus*
- *Ursus arctos syriacus* (Hemprich and Ehrenberg 1828)

15. Common names: English: brown bear
French: ours brun
Spanish: Orso pardo

2. Biological data

21. Distribution: *Ursus arctos* is the most widespread of any species of the family Ursidae. The species once ranged from northern Europe southward through all the mountainous regions of central Europe into Italy and Spain down to the Atlas Mountains of northern Africa; it ranged eastward and southeastward through the Caucasus, Asia Minor, Central Asia, and the Baltic States through the geographical region comprising the Soviet Union to the mountainous portions of northern India, Tibet, China, Korea, and Japan. It has now virtually disappeared from western Europe, where it remains in small, isolated populations that continue to be subject to habitat loss and human-induced morality (Servheen, 1990); the north African population became extinct ca. 100 years ago; in Japan, populations are dwindling and becoming isolated (3 - 4 subpopulations); and in much of its remaining range through Europe and Eurasia, its distribution is not continuous (Servheen, 1990).

In Eurasia, *Ursus arctos* is widely distributed from the tundra and boreal forests of the Baltic States and the geographical area constituting the Soviet Union to the Himalayas. In the southern regions, populations have become disjunct and insular, in some countries to the point of becoming very rare and, even extinct (Servheen, 1990).

The population listed in the CITES appendices as the CITES Appendix-I subspecies *Ursus arctos isabellinus* occurs in the mountains of south-central Eurasia, namely Afghanistan, China, northern India and Pakistan, the USSR and possibly Bhutan and Nepal.

Although little information is available on the status of *Ursus arctos* in Latvia and Lithuania, according to Servheen (1990), there is a small, apparently isolated population of the species in Estonia.

In the geographical area comprising the Soviet Union, *Ursus arctos* ranges extensively from the western border with Finland to the shores of the Pacific Ocean (Servheen, 1990). Shevchenko (1987) has provided a recent assessment of the distribution of the species in the European part of this area west of the Ural Mountains: Prior to the 17th-19th centuries, the species occurred in both forest areas and along river forests in the eastern European steppes of the Ukraine, Stavropol area, Trans-Volga, Orenburg area, southern Urals and Kazakhstan. Today, however, they have disappeared from the steppes and many localities in the forest-steppe zones. By the end of the 19th century, the species had vanished from the Urkainian Polesye, and the distribution had become fragmented. The species is currently restricted to large forested zones and covers an estimated area of ca. 1.7 million sq km, divided into three separate sections--European forest massif, eastern Carpathians, and the Caucasus. In the central part and in the Caucasus, bear range has sharply decreased, and some populations have become isolated (Shevchenko, 1987).

The Appendix-I subspecies *U. a. isabellinus* extends from across the border from China in the Pamir Mountains of the Republic of Tajikistan, the Gissaro-Alai and Tien-Shan Mountains of Kirghizia and Uzbekistan and the Khr. Dzhungariskiy Alatau and Khr. Tarbagatay mountain areas in Kazakhstan.

22. Population: *U. arctos* is not threatened with extinction throughout much of Eurasia due to large populations in the geographical area comprising the Soviet Union (Servheen, 1990). However, all available information points to decreasing numbers throughout its range, threatened sub-populations (especially along the southern edge of Eurasia), and the species' likely regional extirpation in the near future in the Middle East and along the southern and eastern edge of its range (Servheen, 1990). In Asia Minor, there are fewer than 1,000 animals; during the 1940-1950's the combined populations of Iran, Iraq, Afghanistan (*U. a. isabellinus*) and Pakistan (*U. a. isabellinus*) were estimated at between 2 500 - 3 000 animals; northern Myanmar, Tibet, west China, Manchuria and Korea "probably" harbor a few thousand animals (Servheen, 1990).

The population of *Ursus arctos* of the area comprising the Soviet Union may be as high as 100 000, representing more than 50% of the extant global population of the species (Servheen, 1990). This population had been estimated to number ca. 100 000 in the 1960's; by the 1970's, however, this number had decreased to ca. 70 000. By the 1970's, the Kamchatka population had been greatly reduced due to over-hunting. In the Kronotsky State Reserve, in the 1940's numbers were estimated to be several thousands, but by 1970 the numbers did not exceed several hundreds. Populations are thought to be stable throughout the country except for *U. a. leuconyx* (= *U. a. isabellinus*) and *U. a. syriacus* (Ovsyanikov, 1988). Ovsyanikov also reports a "sharp decrease" in the population in east Siberia in the 1960s. The decline in the East Siberian/central zone is apparently due to heavy exploitation of timber and expanding human populations. Bear populations are continuing to decline in these areas despite hunting prohibitions (Shevchenko, 1987).

West of the Ural Mountains in the Baltic States and the area comprising the Soviet Union, the population of *U. arctos* is estimated at 30-33 000 individuals over an area of 1.7 million sq. km. (Shevchenko, 1987). Regional estimates for the western part of the country are: 16 000 in the northeastern regions; 4 000 in central regions; 4 000 in the Ural Mountains; 5 000 in the Volga-Vyatka region; 1 000 in the Carpathian Mountains (Boldenkov and Krainev, 1972 *in* Shevchenko, 1987). Numbers are thought to be stable in the region adjacent to Finland, where movement from the area is thought to be the major factor increasing the Finnish population (Servheen, 1990); however, in the central part of European Russia and in the Caucasus, bear population and range have sharply decreased, and some populations have become isolated;conversely, the population of the Carpathian Mountains is reported to have increased more than 10-fold from 1950-1975 (Sevchenko, 1987).

Pazshetnov (1989 *in* Bräutigam, 1989) and Shevchenko (1987) both report populations declining in the Caucasus; Pazshetnov asserted that the "subspecies *U. a. caucasicus* and *U. a. syriacus*" may be threatened with extinction.

In the eastern portion of the geographical area comprising the Soviet Union, population estimates based on wildlife counting efforts of the Soviet Hunting Department (Glavokhota) were: 1 800 in Kazakhastan; 8 850 in West Siberia; 40 000 in East Siberia; 32 000 in the far eastern section of the country; 1 400 in Sakhalin; and 700 in the Kuril Islands (Vereschchagin, 1978 *in* Servheen, 1990). For the far eastern USSR, Dunishenko (1987 *in* Servheen, 1990) estimated 12-14 000 individuals in Kamchatka; 1 900-2 000 in Sakhalin;, 5000-5 500 in Khabarovsk; 2 000 in Primorye; 1 700 in Amurskaya; and 2 200 in

Magadanskaya. Pazshetnov (1989 *in* Bräutigam, 1989) believes populations of the species in the far east could be threatened with extinction due to hunting.

The CITES Appendix-I subspecies *U. arctos isabellinus* (= *U. a. leuconyx*) is estimated to number fewer than 2 000 individuals: 900 - 1 000 in Kazakhstan, 300 in Kirghizia, 700 in Tajikistan, and 95 in Uzbekistan (Zhirnov *et al.*, 1978 *in* Bragin, 1988). The major threats to the population are destruction of habitat through the felling of mountain forests and agricultural development in mountain areas.

U. a. syriacus in the Caucasus Mountains is estimated by Thikhonov (1987 *in* Bragin, 1988) to number 150 individuals.

23. Habitat: Servheen (1990) predicts that the competition between bears and humans for both space and resources that has resulted in significant reductions in range and numbers for all species ("except, perhaps, the polar bear"), will become increasingly severe with the increase in human populations. This is already the case where *Ursus arctos* remains in Europe and is particularly likely in Asia, where bear populations are becoming more fragmented as a result of human encroachment of their habitat.

According to Shevchenko (1987), bear conservation conflicts directly with timber extraction in the geographical area comprising the Soviet Union, as well as with urbanization and demands for recreational opportunities. She asserts that in central parts of the area, where such conflicts are particularly severe, the "prospects are rather dismal." Although conflicts between *U. arctos* and man related to livestock predation are apparently limited throughout most of the area comprising the Soviet Union, damage to trees by cambium feeding is pronounced in the Carpathian Mountains, where bear damage affects 10% of all fir trees (*Abies* spp.) (Shevchenko, 1987). In addition, of the 3 300 bears reported taken by hunters in the western portion of the Soviet Union from 1981 to 1983, 42% were shot in oat fields while feeding on grain (Shevchenko, 1987).

24. Reproductive Biology/Ecological Parameters: A low reproductive rate and naturally low density in populations of *U. arctos* render the species susceptible to overexploitation (Servheen, 1989; Santiapillai, 1989 in Bräutigam, 1989). Females do not attain sexual maturity until the age of 3 - 5 years, do not give birth to young every year, and generally only give birth to two cubs at a time. In addition, reproductive success is dependent on seasonality and the availability of food (Santiapillai, 1989 in Bräutigam, 1989).

In addition, territories ranging from between 500 - 800 ha to as large as 5 000 - 10 000 ha (Santiapillai, 1989 in Bräutigam, 1989) dictate that extensive areas of available habitat are needed to sustain a viable population. Insularization of bears into small populations render them more vulnerable than larger populations to random genetic changes, inbreeding depression, and local catastrophic events. Loss of genetic diversity reduces the species' capacity to adapt to changing environmental conditions (Santiapillai and Santiapillai, 1988). Such problems can be minimized to some extent by linking protected areas to facilitate genetic exchange, but, as mentioned above, that requires strategic establishment of reserve systems and maintenance and control over land-use patterns.

In the geographical area comprising the Soviet Union, according to Shevchenko (1987), the European "subspecies" inhabits all forest types but prefers coniferous spruce and pine forests; the "subspecies" also occurs in sub-alpine and alpine meadows up to 2 600 m and in the extreme north even feeds in the tundra zone. Bear range is composed of several types of habitat, and there are seasonal variations associated with ripening cycles and food abundance. Seasonal migrations are characteristic and may extend as far as 200-300 km in some areas (Kolosov et al., 1965; Kudaktin, 1975 in Shevchenko, 1987.) The size of individual home ranges depends on the abundance of food and geographical limitations to disperal.

3. Trade data

In much of the geographical area comprising the Soviet Union, bears are most highly valued as a sport hunting animal. However, the very high demand throughout Asia for bear gall bladder, in particular, as a cure for digestive problems, inflammation, and for blood purification, has resulted in a lucrative international trade in these species which may involve bears from this area.

Gall bladders from bears of unknown species are available in most traditional medicine shops throughout Asia (Servheen, 1990). Commercial trade for national and international markets is believed to threaten the survival of all Asian bear species (Santiapillai, Servheen in Bräutigam, 1989; Servheen, 1990); it may be the major threat (Servheen, 1990). Bear parts for these markets are increasing in value, and increasing rarity of supply is placing further pressure on remaining populations.

31. National Utilization: In the geographical area comprising the Soviet Union, *Ursus arctos* is a popular sport hunting animal. Shevchenko (1987) reports that approximately 10% of the bear population is hunted every year in the northern, northwestern, and some eastern (e.g., Caucasus) areas. Ovsyanikov (1988) asserts that legal hunting takes 10-15% of the bears killed annually, while poaching accounts for "up to 30-40% but more truly 20% of the annual kill." Until the 1970s, hunting results were reflected by bear skin sale statistics. Records from 1935 until then indicated a sharp decline in sales; although this may reflect population declines, it may also be an artifact of an increasing trend by hunters to retain the skins themselves.

Various bear parts other than the skin are considered of value. Bear fat and "chole" prized for their medicinal value are widely used in folk medicine (Shevchenko, 1987). Meat and fat are eaten in considerable quantities by local people in far eastern regions of the area comprising the Soviet Union (Santiapillai, 1989 *in* Bräutigam, 1989).

32. Legal International Trade: Differentiation between legal and illegal trade in bear products has been complicated by the different degrees of national legal protection afforded to bear taxa in China and other countries, as well as their different status under CITES. This has particularly been the case with *Ursus arctos*. In addition, quantification of trade in particular species has been complicated by the form in which bear parts are marketed, i.e., gall bladders, paws, etc., which are largely unidentifiable to species. Milliken (1985) and, more recently, Servheen (1990) and others (e.g., New York Times, 1988; Servheen and Mills, pers. comm., 1991) have pointed to evidence that threatened and protected bear species have been commercialized both locally and internationally through the loophole created by differing degrees of

protection afforded to different bear taxa. (See discussion below under 5. Information on Similar Species).

Trade by Importing Country:

Hong Kong: Bear gall bladders are widely available in Hong Kong medicine shops, for sale both locally and, as some retailers have reported, to other points in Asia, including Japan, R. Korea and Taiwan. As many as 1 000 bear galls are reported sold per year (Power and Chiu, 1991). Mills and Servheen (pers. comm., 1991) found what were purported to be bear gall bladders displayed in front windows and prominent display cases in Chinese apothecaries throughout Hong Kong's finest shopping districts. Prices ran as high as US$ 1 600 each. Merchants claimed the galls came from various Asian countries, including China, Malaysia, India, and the Soviet Union; according to Power and Chiu (1991), bear galls are reported to also come from Pakistan. At least one Hong Kong salesman, at Hip Tak Wing Ginseng Co., reported to Power and Chiu (1991) that the gall bladders he was selling originated in Sichuan and Yunnan provinces in China; the manager of a wholesaler, the Export Trade Corp., reported he bought bear galls from traders coming from China; he did not know what species the galls were from but believed them to be "just regular bears."

While selling bear parts is a violation of local law and import of certain species into Hong Kong a violation of CITES, conservation officials claim they could do nothing about such violations; so long as a seller of bear parts claims his wares derive from a bear species not listed under CITES (i.e., *Ursus arctos* from the Soviet Union or *Ursus americanus* from North America) he/she is able to avoid prosecution. Because the biochemical analyses for identifying gall bladders as deriving from bears and distinguishing them according to individual species are not yet widely available, Hong Kong officials report they are unable to contest these claims and, as a result, are unable to enforce domestic and international protective legislation (Power and Chiu, 1991).

Japan: Milliken (1985) reported on the utilization of bear gall bladder in Japan for the treatment of liver, stomach, and intestinal ailments in traditional "kampoyaku" medicine. Because of higher prices paid by buyers from R. Korea for gall bladder from sources (*Ursus arctos* and *Ursus thibetanus*) in Japan, the Japanese market was reported to be almost exclusively dependent on foreign sources. Until 1988, bear gall bladder was imported under a specific Customs category together with "toad cake," a secretion of toad species of the genus *Bufo*. From 1979 to 1984, a total of 6 624 kg of "toad cake" was imported into Japan, over 70% from China. Based on varying assessments on the proportion of toadcake to bear gall bladder in these import shipments, Milliken estimated that 711 to 3 796 kg from China may have been bear gall bladder.

Milliken (1985) also reported that wholesalers estimated that the dried gall bladder of Japanese *Ursus thibetanus* averaged about 50 grams in weight, while that of individuals from the Himalayan/Tibetan region averaged twice that and sometimes as large as 120 grams. He concluded that approximately ten bears are required to produce one kilogram of bear gall bladder. Using this figure, 7 000 - 37 000 bears would have been required to produce the gall bladder imported from China during the period 1979-1984.

Although CITES annual report statistics document negligible trade in Asian bears and bear products, Japanese Customs statistics provide ample evidence of

international trade, particularly since 1988, when they began to specify imports of bear gall bladder, referred to as "fel ursi, dried" (Customs category no. 3001.10-100). The following table below details recent imports into Japan of bear gall bladder by country of origin.

Using Milliken's figure of 10 bears per kilogram of gall bladder, it is estimated that since 1988 alone, over 10 000 bears have been harvested in China to provide gall bladder imports for the Japanese market alone. Given the proportion of the population of *Ursus arctos* in China comprising the CITES Appendix-I subspecies *U. a. isabellinus* and *U. a. pruinosus*, it is likely that these imports, if derived from *U. arctos*, were of these CITES Appendix-I taxa; if not derived from *U. arctos*, then they would have been the CITES Appendix-I taxa *U. thibetanus* or *Helarctos malayanus*.

Imports into Japan of Bear Gall Bladders (kg), 1983-1990

Country of Export	1990	1989	1988	1987*	1986*	1985*	1984*	1983*
Canada	6	4						
China	118	687	246	1312	1350	679	727	859
Hong Kong		12	68	38	41	85	88	227
India			20	50	50	50	10	40
R. Korea	10							
Nepal							10	
Singapore				10		10	60	
Taiwan							4	
U.S.A.								
U.S.S.R..				1		1		

* include "toadcake."

Milliken (1985) reported a wholesale price of US$ 16/gram (= US$ 16 000/kilogram) for imported gall bladder in Japan. Declared values per kilogram of bear gall bladder imported into Japan ranged from as low as US$ 911/kg for exports from India in 1988 to over US$ 15 000 for imports from Hong Kong in 1989. Servheen (1989) reported that an early 1988 import into Japan of 62 kg of bear gall bladder from China was estimated to have a retail value of US$ 3.97 million.

Milliken (1985) also reported on imports of bear paws into Japan, for use in bear paw soup in exclusive Chinese restaurants in the country. He concluded at that time that the bear paw trade in Japan appeared totally dependent on bear paw imports from China. He reported that wholesalers estimated receiving more than 1 tonne of bear paws annually during the 1970s but that levels had dropped to ca. 500-600 kg in the 1980s. The value of the paws increased considerably through the distribution process, from ca. US$ 75/kg at import to ca. US$ 416-833 per plate of bear paw meat and soup. As shipments from China were

reported to rarely ever note the species on the packaging or export documents, he suspected that the differing CITES controls on Chinese bears (including, at the time, subspecies of *Ursus arctos* not listed in CITES) constituted a loophole through which threatened and protected species continued to be traded commercially in violation of the treaty.

Republic of Korea: Korea is widely considered to be the world's largest market for bear parts and products. Milliken (1985) identified the country as a major market for bear gall bladder. Used in traditional "hankyuk" medicine, bear gall bladder is commonly available in the country over the counter at the thousands of "hankyuk" shops or dispensed through "some 3 600" "hankyuk" clinics and hospitals. Since protection in 1982 of the one bear species indigenous to the country, *Ursus thibetanus*, believed to be criticially endangered, the market shifted to sources outside the country. In the early 1980s, this was Asiatic black bears *Ursus thibetanus* from Japan, preferred due to its being the same species traditionally utilized by Koreans, (imported as live animals then slaughtered for their parts); more recently, R. Korea has been identified as the major market for gall bladders of North American black bears *Ursus americanus* (Bräutigam, 1989). Milliken (1985) reported that although bear paws, claws, and pelts were also of value, the gall bladder far surpassed those products. As an example of the high commercial value of these parts in the country: the 180-gram gall bladder of a bear killed by a poacher in 1983 was sold for the equivalent of US$ 55 000 at a public auction; the meat sold for the equivalent of US$ 1, 830.

According to Mills and Servheen (pers. comm., 1991), bear gall bladder in the Republic of Korea is "worth more than its weight in gold", selling at more than 14 times the price of gold per gram. The largest of what they believed to be authentic bear galls sold in Seoul was priced at US$ 9 800, or US$ 164 per gram. They also found bear paw on the printed menus of some of Seoul's most prestigious restaurants, priced at several hundred U.S. dollars per serving.

According to Mills (1991), between 1980-1983, R. Korea imported 330 live bears of various species from Canada, Japan, Germany, and the United States. In addition, she reported that officials of the Thailand Royal Forestry Department reported that at least 30 Thai bears (*Helarctos malayanus*) were illegally shipped to R. Korea "to fortify Korean athletes for the 1988 Olympic Games."

Although the Customs statistics of the Republic of Korea includes headings for "bile" (0510.00.9029) and "gallstone" (0510.00.4000), it is unclear to what extent the imports reported represent bear products. In 1988, the Republic of Korea imported 150 kg of bile from Japan valued at US$ 7 566 ($50/kg) and 302 kg of bile from Taiwian valued at US$ 27 242 ($90/kg).

Malaysia: Mills and Servheen (pers. comm., 1991) reported that they visited one large Chinese apothecary in Kuala Lumpur that specializes in bear gall, deer antler, and other animal medicinals from the Soviet Union.

Singapore: Mills and Servheen reported (pers. comm., 1991) observing Chinese apothecaries in Singapore, like those in Hong Kong, selling bear gall bladders allegedly from the Soviet Union. One apothecary reported receiving regular shipments of bear galls containing several kilograms each from the Soviet Union. Other apothecaries reported the origin of their bear galls as India, China, and Southeast Asia. Prices per gall bladder ranged to US$ 2 000 and higher.

Singapore conservation officials told Mills and Servheen that CITES and domestic laws pertaining to the sale of bear parts are not enforced because, among other reasons, it is impossible to distinguish galls from protected bears from those of unlisted species.

Taiwan: Taiwan Customs statistics do not specify bear gall bladder imports. Nevertheless, according to TRAFFIC (1991), in Taiwan's high-class restaurants, bear paw is served at prices of up to US$ 1,400/plate. Juvenile Asiatic black bears *Ursus thibetanus* are frequently seen in Taiwanese pet shops selling for ca. US$ 2 000 each; they are raised and slaughtered for their parts. Dealers have indicated that they are primarily smuggled in from China.

Thailand: Mills (1991) reported that bears and bear parts are readily available in Thai markets, with gall bladders selling at retail for hundreds of U.S. dollars; one gall bladder, advertized in a Chinese apothecary in Bangkok's Chinatown as being of *Helarctos malayanus*, was selling for US$ 6.50/gram. She was offered a specimen of *H. malayanus* for US$ 400 by a market salesperson, who further reported that it would take 2-3 weeks to obtain the bear cub offered from Lao PDR. The same person claimed to sell, along with her sister, ca. 200 bears per year. One dealer she interviewed reported selling 20-30 *Ursus malayanus* per year, all of them from Lao PDR.

Mills (1991) further reported on the organization of bear-eating banquets in Thailand for Korean tourists. Won Sun Ung, president of Thai-Han Travel Service in Bangkok, specializing in booking Korean group tours, acknowledged that eating bear is illegal in the country, but nevertheless admitted that he receives requests for special bear feasts by telex from Seoul. He demands a month's lead time to order a live entrée--the price for a large bear: ca. US$ 30 000. He offered "braised bear paw" at the next group banquet for US$ 300-600.

33. Illegal Trade: As mentioned above, it is difficult to distinguish between the legal and illegal trade in bear parts due to non-identification or misidentification of the bear species in trade and the difficulty in controlling trade in the types of commodities most often traded. There is, however, ample evidence that threatened and protected bear taxa are traded as non-protected species in violation of national laws and CITES regulations. In China, for example, *Ursus arctos* is legally protected from hunting and export, but the trade, as substantiated above, continues and--by all accounts--continues to flourish. A recent TRAFFIC investigation (1991) into wildlife trade in and from China revealed that one dealer from the northeast of the country estimated selling 100 "pairs" of paws and 100 gall bladders every year, primarily to Hong Kong and Taiwan overseas Chinese, who smuggle them out of the country.

In addition, according to TRAFFIC (de Meulenaer *in litt.*, 1991), there are increasing concerns that hunting of *Ursus arctos* in the eastern Soviet Republics is impacting bear populations. It is reported that North Koreans employed in the taiga timber industry in Siberia are involved in hunting the species for gall bladder; timber concessions are reported to be systematically searched for bears by Koreans, and all individuals in the vicinity of the timber camps are killed and only the gall bladder taken. There are increasing reports from Russian bear hunters that bear carcasses are found in forests all over Siberia from which the intestines only have been removed. There being few controls on exports by

train from the Soviet Union to North Korea allows for large numbers of gall bladders of bears poached in the eastern Republics of the Soviet Union to be transported this way to North Korea.

34. Potential Trade Threats: The similarities between the Asian trades in bear parts and products and rhino horn and other products in terms of both cultural and economic imperatives and the demonstrated failure of efforts to enforce protection of bears at local levels and CITES trade controls at national/international levels give rise to considerable concerns regarding the capacity of government officials and, indeed, the world conservation community to stem the increasingly lucrative trade in bear parts. As noted above, this trade is considered a threat to the survival of Asian bear species and certain populations of the much wider-ranging *Ursus arctos*. If not held in check, it may impact non-threatened species or populations of *Ursus arctos*.

341. Live Specimens: Milliken (1985) has documented the export of live Japanese bears to R. Korea ostensibly for zoos but ultimately for slaughter for their parts. Stuart (1989) reported observing live bears -- sun bears and Asiatic black bears -- being kept in cages in various localities in Lao PDR, perhaps awaiting shipment to Thailand or another international market. Live specimens have also been recorded in cages in Viet Nam. It is possible that live bears may be traded as a cover for the by-far more profitable sale of their parts and products.

Also of concern to mammalogists is the retention of bears in captivity in "bear-bile farms" in China for surgical extraction of their bile (*China Review*, 1989). Although this technique has been touted as a measure to reduce "the widespread slaughter" of bears, it is unlikely that this is so. In addition, removal of animals from the breeding population for these farms argues against this procedure for conservation purposes.

342. Parts and Derivatives: As above.

4. Protection status

41. National: According to Servheen (1990), the population of Estonia has been included in the Red Data Book of the Soviet Union and is fully protected.

In the geographical area comprising the Soviet Union, two subspecies of *U. arctos* are protected: *U. a. leuconyx* (= *U. a. isabellinus*) in Middle Asia and Kazakhastan and *U. a. syriacus* in the Caucasus Mountains (Servheen, 1990). Bragin (*in* Servheen, 1990) reports that numbers of both subspecies are decreasing due to habitat destruction and poaching.

Other subspecies are not protected, although closed seasons for hunting are in effect in some areas. In addition, *Ursus arctos* is completely protected in certain national parks.

42. International: Two subspecies of *Ursus arctos*, representing the major proportion of the Chinese population of the species (see above) are included in CITES Appendix I. The population of Mexico (believed to be extinct) is also in Appendix I. The Soviet Union population of *Ursus arctos* was proposed for listing in CITES Appendix II at the seventh seeting of the CITES Parties (Lausanne, 1989); this proposal was withdrawn.

Ursus arctos is listed in Appendix II of the Berne Convention on the Conservation of European Wildlife and Natural Habitats.

43. Additional Protection Needs: Shevchenko (1987) asserts that the continued existence of *Ursus arctos* in the European part of the geographical area comprising the Soviet Union is assured so long as forest cover is maintained over at least 40% of the total area and human population density is maintained at fewer than 30/sq km. In the central region of that area, nature reserves with adequate buffer zones are essential for ensuring protection of bear populations and the "only method" for doing so in densely populated areas of the country (Shevchenko, 1987). In the north and in the Carpathians, it has been recommended that hunting be brought to sustainable levels, i.e., in keeping with rates of population growth, and that measures for preventing unlicensed hunting and protecting and improving habitat and food resources be enforced (Shevchenko, 1987).

    Elsewhere in the world, *Ursus arctos* is threatened or in decline, and its future may only be assured in Alaska, Canada, and some portions of the area comprising the Soviet Union. Servheen (1990) has reviewed the status of the species, and a summary is provided in the Annex to this document. From this summary, it appears that additional populations of the species may qualify for inclusion in CITES Appendix I.

5. Information on Similar Species

All Asian bear species besides *Ursus arctos* are protected from international trade through their listing in CITES Appendix I. Two of China's three subspecies/sub-populations are included in Appendix I. The Annex provides additional information on *Ursus arctos*.

In addition to the populations covered by this proposal, one bear species *Ursus americanus* is not yet included under the CITES regime. This species is proposed elsewhere for inclusion in Appendix II, also for reasons of similarity of appearance.

Although live specimens and, in some cases, other parts of bear species are readily distinguishable, it is impossible to distinguish bear parts in the form in which they are marketed. Enforcement of local and international trade controls has been virtually impossible due to the differential treatment of bear taxa under national and international protection regimes; this differential treatment has become a major loophole through which continued trade in protected and threatened bear species is by all evidence flourishing in much of Asia.

For this reason, the increasing trade in bear parts which is affecting Asian bear species and populations and now involves *Ursus arctos* from the area comprising the Soviet Union and *Ursus americanus* must to a certain degree be treated as a bear trade and, to the extent possible, trade controls must be simplified to allow efficient implementation and enforcement.

Therefore, in order to protect all Asian bear species, which are listed as Threatened by IUCN (1990) and included in CITES Appendix I, increased controls on trade in other bear taxa are necessary.

6. Comments from Countries of Origin

The authorities of the Soviet Union have expressed their support for the proposal.

7. Additional Remarks

This supporting document has also provided evidence of an extensive and very lucrative trade in bears and bear products, including those of CITES Appendix I and other threatened bear species. This trade has flourished and trade controls have been ineffective due to the differential treatment of different bear species under CITES.

Although evidence has been provided in this supporting statement that some subspecies of sub-populations of *Ursus arctos* in the countries in question, including Estonia and certain regions in the area comprising the Soviet Union are threatened or declining, the current proposal is presented under Article II 2 (b) of the Convention, i.e., for reasons of similarity of appearance with other bear species.

Although further rationalization of the CITES listings might have been facilitated through a replacement listing of *U. arctos isabellinus* by the populations of the countries in which the subspecies occurs, this has not been proposed at this juncture, as it would likely have entailed including a transfer of the population occurring in part of the Soviet Union to Appendix II. This may, however, be a measure worth considering for further rationalization of the listing of Ursidae in the CITES appendices.

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ANNEX - Summary of the Status of *Ursus arctos* on a Country Basis as per Servheen (1990)

1. *Ursus arctos* populations recognized as threatened and/or included in CITES Appendix I and populations included in Appendix II and likely qualifying for transfer to Appendix I.

ASIA

Bhutan (??) (*U. a. isabellinus* - CITES Appendix I)

India (*U. a. isabellinus* - CITES Appendix I)

People's Republic of China - Three subspecies or sub-populations are recognized: *U. a. isabellinus* and *U. a. pruinosus* - CITES Appendix I; *U. a. lasiotus* - CITES Appendix II.

Pakistan (*U. a. isabellinus* - CITES Appendix I)

Democratic People's Republic of Korea - The species is known only from the northeastern section of the country, and nothing is known about its current status.

Japan The subspecies *U. a. yaoensis* is restricted to the island of Hokkaido, where it is divided into three sub-populations. Legal protection is minimal, and the species is hunted for sport and as a pest all year round, with no restriction on age, sex, or reproductive status of bears taken (Mano, 1987). Intensive forest removal and unregulated hunting are causing numbers to decrease, and the future of the subspecies is "questionable."

Mongolia The species occurs in four separate sub-populations. The Appendix-I subspecies *U. arctos pruinosus* extends into Mongolia.

Nepal (??) (*U. a. isabellinus* - CITES Appendix I)

EURASIA

Afghanistan (*U. a. isabellinus* - CITES Appendix I)

Iran, Islamic Rep. of Small numbers of the species may still exist in the Zagros Mountains in the western part of the country and in the Elburz Mountains in the north (Lay, 1976).

Iraq The species is still believed to occur in the Kurdistan Mountains in the northeastern part of the country, but little is available on the status of populations (Hatt, 1959; Khalaf, 1983).

Lebanon The species possibly occurred in the Al Sheikh Mountains until ca. 1960 but is probably now extinct (Khalaf, 1983).

Syria According to Khalaf (1983), the species was reported in the Al Sheikh Mountains along the border with Lebanon in the late 1950s but is likely to be restricted currently to the northwestern part of the country in the area of Latakia. Its current status is unknown.

Turkey — The species occurs throughout the country, although it is believed to face extinction outside of four "core" areas--Arrvin, Hakkari, Tunceli, and Erzincan (Mursaloglu, 1989). Hunting was banned in the 1970s but in 1982 was allowed only to foreign hunters with local guides. Quotas are reportedly set by the General Directorate of Forestry. Mursaloglu (1989) reports that although the decline in species numbers has slowed, it continues throughout most of the country.

EUROPE

France — The range of the species has been severely reduced in the country to portions of the Pyrennes Mountains along the border with Spain. The population in the Alps became extinct in 1937 (Couturier, 1954; Curry-Lindhal, 1972). The total population (separated into eastern and western subpopulations) is estimated at 20-30 individuals (Dendaletche, 1981; Camarra and Parde, in press).

Italy — The species is restricted to 2 sub-populations, one in the Trentino Alps in the north (estimated population 10-16 animals) and the other in the Apennines in and around the Abruzzo National Park (estimated population of ca. 50 animals in 1985) (Roth, 1976; Osti, in press; Boscagli, 1987; Zunino, 1981, 1986; Boscagli, in press).

Spain — The species has been reduced in range to 2 sub-populations in the Cantabrian mountains of northern Spain, believed to number 93-103 individuals and 17 individuals, respectively (Clevenger et al., 1987; Naves and Palomero, 1989; Notario, 1980).

Finland — The numbers of this species in the country have increased in the 1970s and early 1980s as a result of migration from the adjacent Soviet population from ca. 150 individuals in 1970 to ca. 450 in 1985 (Pulliainen, 1989).

Norway — The species is fragemented into 17 sub-populations in the country (Mysterud and Muus Falck, 1989) with a total estimated population size of 160-230 individuals (Kvam et al., in press).

Sweden — The species is restricted to the central to northern portions of the country, estimated population 400-600 (Bjarvall, in press) to 600-800 (Pulliainen, 1989).

Albania — The status of the species in the country is unknown, although Couturier (1954) reported that it was once common. Servheen (1990) notes that as the range of the species in Greece and Yugoslavia extends to the Albanian border, it is likely that the species does occur there.

Bulgaria — The species exists in four separate sub-populations with a total size estimated in 1979 at 400 (Conseil International de la Chasse et de la Conservation du Gibier, cited by Rosler [1989]), and by Rosler (1989) at 850. Hunting was prohibited from 1941-1983, and the species is now managed for sport and removal of depredating individuals.

Czechoslovakia - Rosler (1989) estimates the species' population at 700, with an

increasing trend, while Sladek (1978) and Hell (in press) estimated 350-400, also with an increasing trend.

Greece — The species is under "extreme" pressure due to loss of forest habitat, development pressures, and continuing hunting. Although hunting has been illegal since 1969, poaching is still a problem. Total population size has been estimated at fewer than 100 individuals separated into two sub-populations.

Poland — The species' population was estimated at 70-75 individuals in 1982 (Jakubiec and Buchalczyk, 1987), concentrated along the border with Czechoslovakia and the Ukraine. The trend is towards the increase.

Romania — Has the largest *U. arctos* population in Europe outside of the Soviet Union, with an estimated 6 000 in the Carpathian Mountains and Transylvanian Alps in an area of 34 000 sq km or 52% of the wooded area of the country (Rosler, 1989; Weber, in press). Sport hunting permits are limited and fewer than 300 bears are shot legally annually with additional bears taken illegally due to depredations (Weber, in press).

Yugoslavia — The species is estimated to number 1 600 - 2 000 individuals, primarily in the Dinara Mountains (Isakovic, 1970; Huber, in press). The species is a valuable trophy animal and is hunted legally under a system requiring all hunters to be accompanied by a member of the forestry organization issuing the hunting permit. Foreign hunters represent a considerable number of the hunters.

NORTH AMERICA

Mexico — (CITES Appendix I)

United States — The species exists throughout Alaska, where it is classified as a game animal (population estimated at 32 000 - 43 000 individuals and in six sub-populations in the lower 48 states--Idaho, Montana, Washington, and Wyoming--where it is classified as a threatened species (population estimated at 700-900 individuals.

2. *Ursus arctos* populations not currently included in the CITES appendices that may qualify for inclusion to be included in Appendix I or II:

Estonia — Included in Red Data Book of the Soviet Union.

Latvia

Lithuania

Soviet Union — (except *U. a. isabellinus* - CITES Appendix I)