

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA
Amendments to Appendices I and II of CITES

Eleventh Meeting of the Conference of the Parties
Nairobi (Kenya), April 10-20, 2000

A. PROPOSAL

Transfer the North American populations of *Falco rusticolus* from Appendix I to Appendix II, with a zero quota for export of wild birds.

B. PROPONENT

United States of America

C. SUPPORTING STATEMENT

1. Taxonomy

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| 1.1 <u>Class:</u> | Aves |
| 1.2 <u>Order:</u> | Falconiformes |
| 1.3 <u>Family:</u> | Falconidae |
| 1.4 <u>Species:</u> | <i>Falco rusticolus</i> Linnaeus 1758 |
| 1.5 <u>Scientific synonym:</u> | <i>Falco gyrfalco</i> Linnaeus 1758 (Russian usage) |
| 1.6 <u>Common names:</u> | |
| English: | gyrfalcon or gerfalcon |
| French: | faucon gerfaut |
| Spanish: | halcon gerifalte |
| German: | gerfalk |
| Danish: | jagtfalke |
| Russian: | krechet |
| Nunamiut: | okiotak or kitgavikroak |

1.7 Code Numbers: A-213.005.002.031

2. Biological Parameters

Largest of the true falcons, the gyrfalcon is found in subarctic and arctic environments around the world. It feeds mainly on ptarmigan (*Lagopus* spp.), but also on other upland game birds, waterfowl, seabirds, ground squirrels, arctic hares, and lemmings. Individuals are highly variable in plumage, ranging from nearly all white with just a few dark marks to a uniformly dark brown or sooty with all kinds of intermediate gray conditions between. The larger female weighs around 1300 to 2100 grams, sometimes more, while the male runs around 900 to 1500 grams. First year birds are more streaked than adults, have broader wings and longer tails, and a softer feather structure. (Glutz von Blotzheim *et al.* 1971, Cramp and Simmons 1980, Cade 1982, Palmer 1988, Clum and Cade 1994, Cade *et al.* 1998).

- 2.1 Distribution: The gyrfalcon is circumpolar in distribution. The breeding range encompasses the political borders of the United States (Alaska), Canada (Yukon Territory, Northwest Territories, northern British Columbia, Quebec, and Labrador), Greenland, Iceland, Norway, Sweden, Finland, and Russia (Dementiev and Gladkov 1951, Cramp and Simmons 1980, Cade 1982, Ellis *et al.* 1992, Clum and Cade 1994, Cade *et al.* 1998).

The distribution of gyrfalcons through their breeding range is not continuous because the scattered distribution of suitable nesting biotopes (cliffs, bluffs, special trees with stick nests). Where these required nesting biotopes do not occur, as in low lying coastal tundra, gyrfalcons do not breed, although nonbreeders may be present. Consequently, the dispersion of breeding pairs tends to be along coastlines, along river systems, or widely scattered in uplands and barrenlands with few rocky formations. In regions where suitable nesting biotopes are abundant, nesting gyrfalcons space themselves at regular intervals and make use of all available space when food is abundant (White and Cade 1971, Roseneau 1972, Nielsen and Cade 1990a, Mossop and Hayes 1994).

Some gyrfalcons, particularly adult males, remain on the breeding grounds throughout the year where suitable prey occur, but others move south into wintering areas (Platt 1976, Cade *et al.* 1998). There is a regular migration to and from the high arctic breeding grounds; for example, white Greenlandic birds appear in Iceland during most winters (Nielsen and Petursson 1995). Most of the birds seen far south of the breeding range in winter are adult females or birds of the year, for example, in regions adjacent to the U.S.-Canadian border (Cade 1960, Platt 1976, Poole and Bromley 1988a, Nielsen and Cade 1990a, Sanchez 1993).

- 2.2 Habitat Availability: Owing to the remoteness and harsh climatic conditions of most of the breeding range, human impacts on habitat have been inconsequential for the most part. Large regions of suitable habitat, encompassing hundreds of thousands of square kilometers, remain uninhabited by industrialized humans. Even in a country such as Iceland, where the range has been modified by a thousand years of pastoral activities, the gyrfalcon remains a common raptor. It could be argued that human activities have created more heathland habitat for the gyrfalcon than before the extensive birch forests were cut down in the early centuries of human settlement (Cade *et al.* 1998). In Alaska, gyrfalcons occasionally use man-made structures such as abandoned gold dredges, sluice boxes, and trestle supports for the trans-Alaska oil pipeline as nest sites (White and Roseneau 1970, Ritchie 1991). On the wintering range, gyrfalcons come into contact with habitats more highly modified by human activities, but even here there may be more benefits than negative aspects in the form of increased abundance and concentration of prey—wintering flocks of waterfowl around reservoirs, introduced pheasants on farmlands, pigeons and crows around towns and farmsteads (Dementiev 1951; Sanchez 1993, Clum and Cade 1994, Cade *et al.* 1998). It is unlikely that anthropogenic changes in habitat will be a problem for gyrfalcons in the foreseeable future.

- 2.3 Population Status: It is estimated that the global population of gyrfalcons is of the magnitude of ten thousand pairs, with an additional 30,000 or more immatures and non-breeding adults. However due to several factors, good population estimates for this species are difficult to make and, in most cases, only an order of magnitude estimate is possible for continental populations. Since gyrfalcons breed so early in the season, few investigations have been carried out during territorial establishment and egg-laying, when the entire reproductive population might be counted in a region. When counts are made in mid-season, some nests will have failed already, and the pairs may not be present at their eyries. Second, gyrfalcons are thinly and irregularly dispersed over the landscape, so that large areas covering thousands

of square kilometers must be surveyed. In the past, most systematic surveys have been conducted by boat along coastlines or down rivers and are basically linear transects (Cade 1960, White and Cade 1971). Since the 1970s, surveys have been carried out in Alaska and Canada by fixed-wing aircraft and helicopters, allowing for true regional searches but with some sacrifice of accuracy (White and Cade 1975, Shank and Poole 1994). Third, breeding populations fluctuate drastically from year to year depending on spring weather and the available prey supply. In most regions, there is a strong association between breeding effort (number of territorial pairs, number of young produced) and the number of available ptarmigan (*Lagopus* spp) (Cade 1960, Nielsen 1986, Mossop and Hayes 1994). Consequently, regional estimates must be based on consistent surveys over at least a 10-year period to account for the influence of the “ptarmigan cycle” on the number of breeding gyrfalcons. Such long term surveys are only available for Alaska, Yukon Territory, Northwest Territories, west Greenland, and Iceland (Swem *et al.* 1994, Mossop and Hayes 1994, Shank and Poole 1994, Burnham and Mattox 1984, O.K. Nielsen in press).

A. North American population

Alaska: Based on limited information from 86 known eyries and comparing with the relative abundance of peregrines (*Falco peregrinus*), Cade (1960) estimated 200 to 300 pairs of gyrfalcons for the state. Based on his findings on Seward Peninsula, Roseneau (1972) revised the estimate upward to 300-500 pairs. Swem *et al.* (1994) summarized recent surveys conducted on nesting falcons in Alaska and, based on about 150 documented nesting locations, estimated the nesting population at 375 to 635 pairs. Based on the Yukon studies (see below), it seems likely that the Alaskan population is still under-estimated. Considering that surveys only collect data on nesting pairs, the total population of a region, which also includes young of the year, immatures, and nonbreeding “floater” adults, in good reproductive years, is at least three times the number of breeding adults.

Yukon Territory: Gyrfalcons have been studied intensively from 1973 to 1991 in 15 of the 22 ecoregions of territory. Based on 2,500 nest site visits to 259 known nesting territories and helicopter surveys, the estimated breeding population is 750 nesting pairs (nesting density among ecoregions ranged from 0.6 to 6.1 pairs per 1,000 sq. km. over the 482,681 sq. km. territory) (Mossop and Hayes 1994).

Northwest Territories (NWT): Gyrfalcons have been studied extensively in 16 areas of this vast region of 3,380,000 sq. km. (2/3rds suitable for gyrfalcons) since 1982 (Poole and Boag 1988, Poole and Bromley 1988a, 1988b, Shank and Poole 1994). Most surveys were done by helicopter, and some 430 territories were located and checked 797 times. Based on known inter-nest distances for the 16 areas, Shank and Poole (1994) estimated a total population of 1300 nesting pairs and an overall population of at least 5,000 birds. However, they had only limited data for the 900,000 sq. km. of the mainland barren grounds, so their estimate of 450 pairs (one pair per 2000 sq. km.) for this region may be too low.

Ungava and Labrador: No systematic and long term studies have been carried out in this region of more than 2 million sq. km., about half of which is suitable for gyrfalcons. However, the species is known to be widely distributed along the Labrador coast and inland mountains from about 55°N northward and throughout the arctic portions of Ungava (Todd 1963). Falconers have frequently visited eyries on the Koksoak River and on islands in Ungava Bay, and based on their information and on a consideration of what

is now known about abundance in the Northwest Territories, a minimum estimate of 500 pairs is reasonable. M. LaPage estimated 1,000 pairs (Clum and Cade 1994).

Summation: The North American breeding population can be placed conservatively at around 3,000 pairs, but could be considerably larger, depending on the actual numbers in the mainland region of NWT and on the Labrador Peninsula. The total, post-breeding season population could be estimated at around 18,000 individuals, depending on the degree of reproductive success in any given year.

The captive population: Gyrfalcons were first bred in captivity by The Peregrine Fund, Inc. at Cornell University in 1974 (Cade 1986). By 1984, some 275 gyrfalcons had been produced in captivity, and in 1988, the last official summary by the U.S. Fish and Wildlife Service listed 122 gyrfalcons held by private breeders in the U.S., producing 47 offspring that year (including hybrids). Since then, more than 20 private breeders in the United States and Canada have established breeding programs for gyrfalcons and gyrfalcon hybrids (Wood 1996). Inquiries in 1996 to Canadian and United States officials who keep records on individual permittees indicated that about 300 gyrfalcons were being held for breeding purposes in these two countries, with an annual production of around 150 offspring (including hybrids). Gyrfalcons have now been bred through the F₄ generation, and it is reasonable to assume that the captive population can be self-sustaining indefinitely, although the incorporation of additional wild stock from time to time would be beneficial to maintaining overall genetic fitness. Most gyrfalcons now held by American and Canadian falconers are captive-bred individuals.

B. Gyrfalcons in the rest of the world

Greenland: Based on reports summarized by Finn Salomonsen (1951), Cade (1960) estimated a breeding population of about 1,000 pairs. Unfortunately, most of the information about gyrfalcons in Greenland predates 1950, with only one systematic, long term study of falcons carried out in the 1970s and 1980s. Based on work by Meltofte (1975), Burnham and Mattox (1984), W. A. Burnham (unpubl.data) and Cade and Nielsen (unpubl. data), it is reasonable to assume approximately one pair per 500 sq. km. or around 680 pairs of gyrfalcons in Greenland. Cade's (1982) estimate of 500 to 1,000 pairs may still be a reasonable range for the true population. Although there is little, if any, scientific documentation of movement of birds between Greenland and Canada, it is possible. However, since most movement of gyrfalcons is in a north-south direction between seasons, the occurrence of "Greenland" gyrfalcons in Canada is probably not great.

Iceland: Based on the reports by Brüll (1938), Lewis (1938), and Wayre and Jolly (1958), Cade (1960) estimated the average overall population in Iceland to be around 200 pairs. Bengston (1971) agreed. More recently (1981-1999), O. K. Nielsen has done an intensive study of gyrfalcons in a 5,200 sq. km area of northeastern Iceland. Occupancy has ranged from 76 per cent (62 territories) to a low of 47 per cent (39 territories), but in most years it was well above 60 per cent. These figures yield overall densities ranging from one pair per 84 sq. km. to one pair per 133 sq. km. Furthermore, a national inventory of breeding territories has yielded more than 200 locations to date. Based on the above information Nielsen and Cade (1990a) revised the overall estimate for Iceland to 300 to 400 territorial pairs in optimum years, but with a total ice-free area of 83,000 sq. km and densities averaging around one pair per 100 sq. km., there could be even more when ptarmigan are at peak numbers.

Eurasia: Earlier estimates summarized by Cramp and Simmons (1980) and Cade (1982) for the 1960s and 1970s placed the breeding population of Norway at 65 to 100 pairs, of Sweden at 30 to 50 pairs, and Finland at fewer than 6 pairs, while 3 pairs were known in the Murmansk region of the Russian arctic. A more recent summary of the status of this species in Europe (P. Lindberg in Tucker & Heath 1994) estimated 300 to 500 pairs for Norway, 100 to 150 pairs for Sweden, 30 pairs for Finland, and 50 to 200 pairs for Russia, for a total of 480 to 880 pairs for continental Europe. Cade *et al.* (1998) estimated that the Russian population is probably more like 750 to 1,000 pairs.

Even with more than half of the total range of the species lying within Russian territory, there has been little recent information on Siberia, and no systematic survey of gyrfalcons in a large portion of the Russian and Siberian range has ever been undertaken. Only five sources are cited in the official *Red Data Book of the USSR* (Flint 1978), the most recent in 1963; nevertheless the status was given as “endangered.” It would appear that this designation resulted from lack of information rather than from data showing a population decline. More recently, the species has been listed as “rare” with fairly stable numbers (Voronin *et al.* 1984). A few recent surveys indicate that gyrfalcons are still widespread across northern Siberia (e.g., on the Putorana Plateau of the Taymyr Peninsula) with an estimated population of 160 to 200 nesting territories with pairs (Rogacheva 1988, Dorogov 1988, Kishchinskiy 1980).

The captive population in Europe: There are a number of private breeding establishments in Europe and two or three in Russia and former Soviet republics. Most of the commercial breeding of gyrfalcons is done in Germany and Austria, and most of the trade goes to Middle Eastern countries (Cade 1986, 1997).

2.4 Population trends: Long term population studies of gyrfalcons have only been carried out in Alaska (Swem *et al.* 1994), Yukon Territory (Mossop and Hayes 1994), Northwest Territories (Shank and Poole 1994), Iceland (Nielsen 1986, Nielsen and Cade 1990a, O. Nielsen in press), and west Greenland (Burnham and Mattox 1984, W. Mattox unpublished data). These studies have reaffirmed that nesting pairs of gyrfalcons fluctuate greatly in number in a given region over a span of years, and breeding success (number of pairs fledging young, number of young per pair) is strongly influenced by weather (during incubation and the downy young stage) and by the abundance of food (especially ptarmigan). Both of these factors are highly variable from year to year.

In Alaska, gyrfalcon, nesting along a 345 km. stretch of the Colville River on the Arctic Slope, have fluctuated between 4 pairs in 1952 to 26 pairs in 1990 (Cade 1960, White and Cade 1971, Swem *et al.* 1994, T. Swem unpublished data). Between 1973 and 1991, the breeding population in the Yukon Territory has varied in a 10-year periodicity, highly correlated with the ptarmigan cycle, from a peak of 90 per cent occupancy of territories by adults and 70 per cent producing young, to a low of 40 per cent occupancy and 10 per cent with young (Mossop and Hayes 1994). Overall, there does not appear to be any long term downward or upward trend.

With few long term studies in Europe, it is difficult to identify continent-wide population trends. In west Greenland from 1972 to 1995, the number of breeding gyrfalcons has fluctuated over the years, but there may also be a long term downward trend associated with a simultaneous increase in the number of breeding peregrine falcons (Burnham and Mattox 1984, W. Mattox unpubl. data). Denmark and Norway (CITES 1984) stated that in the high arctic regions of eastern and northern Greenland, where historically the gyrfalcon has been

most abundant, the species “has declined markedly since the beginning of this century” owing to climatic changes. In O. K. Nielsen’s study area in northeast Iceland, the annual occupancy of territories has fluctuated by roughly a factor of 1.6 and the successful breeders by a factor of 3.7 between 1981 and 1997. However, no long term downward trend has been detected. It has been stated that the Icelandic gyrfalcon population has been much reduced compared to the situation in the 19th and early 20th Centuries owing to egg-collecting and the taking of nestlings for falconry. Although there has been some range retraction in Scandinavia in the last hundred years or more, most authorities agree that there has been little or no change in the number of breeding pairs in recent decades (Cramp and Simmons 1980; Lindberg in Tucker & Heath 1994, Cade *et al.* 1998). There are no data on long term population trends of gyrfalcons in Russia and Siberia.

- 2.5 Geographic trends: The gyrfalcon enjoys a very large global distribution, one of the largest for any bird of prey. This size, together with the remoteness of most of the regions it occupies, is a major safety factor for the continued viability of the gyrfalcon as a species into the indefinite future. Although local retractions appear to have occurred along the Labrador Coast (Todd 1963), no other changes in distribution have been reported for North America.

Gyrfalcons have not been found nesting in southern Greenland in recent years (K. Falk unpubl. data), where they used to do so infrequently (Salomonsen 1951). In Iceland, some range contraction has occurred in the southwest on the Snaefellnes and Reykjanes peninsulas where ptarmigan are scarce and fulmars have taken over traditional falcon cliffs (Cade *et al.* 1998). Gyrfalcons formerly bred in scattered montane localities in Scandinavia south to 60°E N, but they mostly breed north of 65°E N at present (Bannerman 1958). In the 18th century, gyrfalcons were said to have bred in the southern Urals of Russia south of 55°E N, but have not been known in this region for more than 200 years (Dementiev 1951, Ellis *et al.* 1992). Likewise, there are no modern records for the southern half of Kamchatka where they are said to have bred, or in the Komandorskiye Islands where they were found breeding in the late 1800s (Ellis *et al.* 1992). These northward retractions at the southern limits of the breeding range may be related to long term climatic changes that modify the environment in unfavorable ways for gyrfalcons, or to human intrusion and modification of habitats, or to both factors.

- 2.6 Role of the species in its ecosystem: The gyrfalcon is a top predator in arctic and subarctic regions, feeding on a variety of medium-sized to large birds and small to medium-sized mammals. The kinds of prey on which it is most dependent are ptarmigan, waterfowl, seabirds, various shorebirds, passerines, lemmings, ground squirrels, and arctic hares. Depending on location, one or another of these prey groups may predominate in the diet, but overall ptarmigan are the most important items. In some situations, gyrfalcons may exert a locally depressing influence on the numbers of their prey (Dementiev and Gladkov 1951, Salomonsen 1951, Cade 1960, Roseneau 1972, Nielsen and Cade 1990b, Clum and Cade 1994, Nielsen in press).

Gyrfalcons also depend on other raptors (rough-legged hawk, golden eagle) and ravens for nest sites, as they frequently use the old stick nests of these species (Cade 1960, White and Cade 1971, Nielsen and Cade 1990a). Few other species are significantly dependent on gyrfalcons for their population viability; the only possibilities might be certain internal parasites or disease organisms, or possibly the nitrophilous lichens that grow on rocks where the falcons’ excrement accumulates.

2.7 Threats: In the Nearctic, there are no significant threats to the continued survival of the gyrfalcon in the foreseeable future, with only minor habitat loss and degradation so far. Even though there are several potential threats in Eurasia (Cade *et al.* 1998), it seems likely that the extent to which habitats have been modified unfavorably for gyrfalcons in some parts of the Palearctic has been compensated by favorable modifications in other areas (artificial increase in nest sites, increase and concentration of winter prey). Human uses of the species are slight and increasingly involve captive-produced rather than wild birds. There are no known population effects of introduced species, competitors, pathogens, parasites, predators, hybridization, or toxic chemicals. Long term climatic changes, such as global warming, and their effects on the arctic and subarctic environments are likely to be the main influences on the distribution and abundance of gyrfalcons in the future, just as they have no doubt been ever since the species first evolved some time in the Pleistocene.

3. Utilization and Trade

Gyrfalcons have been used in falconry and have been articles of commerce and trade at least as far back as the T'ang Dynasty in China, 600 A.D. (Schafer 1959). The species played an important role in falconry in Europe and Asia from about the 10th century well into the 18th century (Dementiev 1960). Most of the gyrfalcons used by the royal falconers and nobility were supplied from arctic Russia and Siberia and from Iceland, with lesser numbers coming from Scandinavia and Greenland. The Mongol rulers were avid flyers of gyrfalcons, as Marco Polo's famous account of the Kublai Khan attests.

3.1 National utilization: In both the United States and Canada use of the gyrfalcon is primarily for falconry and captive breeding. There is also a limited use for scientific and veterinary research. In the United States, falconry is only permitted under joint Federal and State regulations, with 49 States currently allowing falconry as a legal method of hunting (Peyton *et al.* 1995). Master falconers may have no more than three birds of all species in possession; general falconers, no more than two. In 1991, there were 3,738 licensed falconers, and they possessed an estimated total of 4,988 raptors, of which only 145 were gyrfalcons, including 26 wild-caught birds (Peyton *et al.* 1995). In Canada, 6 provinces and 1 territory also allow falconry as a legal method of hunting and license captive propagators. For both the United States and Canada, captive bred birds must be closed banded and the numbers provided to appropriate government authorities. Approximately 20 private breeders in Canada and the United States hold an additional 300 gyrfalcons as breeding stock, most of which are from F₁ or later captive-produced generations. Of these breeders, seven (6 in Canada and 1 in the U.S.) are registered with the Secretariat as commercial breeding operations. The wild founders of this captive population numbered fewer than 30 birds.

Although permits can be obtained to collect birds from the wild in the United States and Canada, the number of birds taken in any given year is very small (less than a dozen), and is not believed to have an impact on the population viability of the wild gyrfalcons. Harvest of wild birds is either by the removal of young birds (eyasses) from nests, or by any one of several methods for trapping first year birds after they leave the nest (called "passage birds" when migrating). Wild adults (haggards) may not be trapped in the United States or throughout most of Canada.

3.2 Legal international trade: In the United States, the gyrfalcon is protected under provisions of the Migratory Bird Treaty Act, which prohibits and/or controls commercial trade in migratory bird species, as well as by the State laws. Information on the Migratory Bird Treaty Act (MBTA) is available from the U.S. Fish and Wildlife Service web site, at: <http://www>.

fws.gov/r9mbmo/internltr. As a result of the MBTA, few wild gyrfalcons have been involved in any trade in the past 20 years. As noted above, provision has been made in the MBTA regulations and in several state jurisdictions to allow the limited taking of wild birds for private use, either for falconry or for captive breeding. In Canada, the gyrfalcon is federally protected only through the provisions of CITES, but this situation would not change by transferring gyrfalcons to Appendix II. In addition, each province and territory has its own legal protection. As in the United States, several Canadian jurisdictions allow individuals under a permit to obtain wild gyrfalcons for their personal use, but these birds cannot be exported for commercial purposes. Since 1984, all gyrfalcons exported from Canada and the United States for international trade have been captive bred birds. Captive-bred specimens appear to meet the international demand for specimens for breeding or falconry purposes.

3.3 Illegal trade: Neither Canada nor the United States have experienced significant falcon poaching or smuggling for at least 10 years. A review of the database maintained by the U.S. Fish and Wildlife Service Office of Law Enforcement shows no records of cases of illegal trade in gyrfalcons for several years.

3.4 Actual or potential trade impacts: As stated earlier, all gyrfalcons exported from Canada and the United States since 1984 have been captive-bred birds. Transferring the species from Appendix I to Appendix II, with a zero export quota for wild birds, should have no significant impact on the species. The only benefit would be that an Appendix II listing would allow for less restrictive trade of captive-bred birds. With the greater availability of new bloodlines or unrelated birds, there is less of a demand to remove birds from the wild for breeding purposes. In addition, the transfer of North American gyrfalcons to Appendix II is unlikely to change the volume or nature of trade from North America since captive-bred birds will also be available from registered European facilities.

All gyrfalcons were listed in Appendix I in 1979. In 1981, North American gyrfalcons were transferred to Appendix II. In 1985, they were returned to Appendix I, because the it was difficult to distinguish between European and North American gyrfalcons and the split listing was causing enforcement problems. However, since most, if not all, gyrfalcons currently in international trade are captive-bred and, with the development of forensic techniques to identify specimens, it is unlikely that the split listing would cause the same problems that were perceived previously.

3.5 Captive breeding for commerce outside country of origin: Besides the United States and Canada, there are several large and numerous small captive breeding projects for gyrfalcons in Europe and the Middle East (Cade 1986, 1997). This activity is centered in Germany and Austria, with some projects in England and a few small ones scattered throughout Europe (J. Parry-Jones pers. com. 1996). It is difficult to give precise figures on the overall number of birds held as breeding stock or produced annually for trade. One German breeder is said to be producing more than 100 gyrfalcons per year, and the total annual production in Europe probably exceeds 300 birds, including hybrids. Most of these captive-bred gyrfalcons are now being sold in Arabian countries, where gyrfalcon hybrids are currently in great demand. Pure gyrfalcons are difficult to keep in Arabia, and the Arabs' traditional interest in the saker (*Falco cherrug*) continues to diminish their earlier keenness for pure gyrfalcons.

4. Conservation and Management

4.1 Legal status: The basis for conservation and management of North American gyrfalcon populations lies with the laws of the United States and its states and Canada and its provinces

and territories. In the United States, gyrfalcons are listed on the various international bird treaties which are implemented by the Migratory Bird Treaty Act (MBTA). In the regulations promulgated under the authority of the MBTA, the only exceptions to absolute protection for gyrfalcons is their use in science, captive propagation, falconry, and law enforcement. The U.S. Lacey Act compounds the penalties of the MBTA for any illegal bird or its parts transported across state or international borders. To facilitate monitoring the use of falcons, all birds must be banded and captive-bred birds must have a closed ring band. Information on the Migratory Bird Treaty Act (MBTA) is available from the U.S. Fish and Wildlife Service web site, at: <http://www.fws.gov/r9mbmo/internltr>. The MBTA is the U.S. domestic law that implements the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource.

In Canada, the gyrfalcon is federally protected only through the provisions of CITES, but this situation would not change by transferring gyrfalcons to Appendix II. In addition, each province and territory has its own legal protection.

The European Union's stricter domestic requiring import permits regardless of whether the North American population is listed in Appendix I or Appendix II would provide additional protection for specimens being imported into a country in the European Union.

- 4.2 Species management: Except for the long-term monitoring programs (see Section 2.4) and legal protection (see Sections 3.1 and 4.1), very little additional management work is being done in the United States or Canada, because the expenditure of time and funds is not justified. Neither country considers the species to be in peril. Although not specifically directed towards managing gyrfalcons, the protection of natural areas, both on a national and local level, has benefitted the species. In addition, the control of pesticides and agricultural pollutants has provided indirect benefit to the species. Since the gyrfalcon is a charismatic species which generates much interest, individual research projects will continue and will serve as an early warning monitor for the species. Indeed, the renewed field interests of falconers, stimulated by legal access to wild birds, has provided important information for the conservation of the gyrfalcon, just as it did in the case of the Peregrine Falcon (*Falco peregrinus*) 30 years ago (Hickey 1969).
- 4.3 Control measures: As stated earlier, gyrfalcons are protected under U.S. and Canadian laws, as well as treaties on migratory birds. In both countries, the possession of raptors, including gyrfalcons, requires permits and the movement of birds is closely monitored. The international trade of gyrfalcons out of these countries is currently limited to captive-bred birds and, with the proposed transfer to Appendix II and the zero export quota for wild caught birds, the trade will continue to be limited to captive bred birds.

There are a large number of commercial breeders in the United States, Canada, and Europe that are commercially breeding gyrfalcons and their hybrids. One consequence of transferring the North American gyrfalcon to Appendix II would be that commercial breeders in Canada and the United States would no longer need to register their facilities with the Secretariat. However, these breeders would still be regulated by State and Federal laws and regulations. The transfer of the North American gyrfalcon would not allow for uncontrolled commercial breeding nor, with the zero export quota, would it allow wild caught birds to be exported.

5. Information on Similar Species

The only species with which the gyrfalcon is likely to be confused is the saker. According to some authorities, they are allopatric populations of the same species. Gyrfalcons are larger and heavier bodied than sakers, they have more feathering on their lower legs, and they have barred tails (some lack barring) instead of the spot marks that occur on the tails of many sakers (some sakers have barred tails). See Ellis (1995) for detailed comparisons. In some cases, it would be difficult or impossible for an informed non-expert or even expert to make a firm identification without knowledge of the bird's geographic origin. The only possible increase in trade resulting from this proposal would be in North America where the saker does not occur.

6. Other Comments

The Government of Canada has been consulted while preparing this proposal, and their comments were incorporated throughout this proposal. Canada has provided the following statement for inclusion in this proposal: "Canada believes that the North American gyrfalcon population does not meet Resolution Conf. 9.24's biological criteria for inclusion in Appendix I. If the population were to be transferred, Canada expects that its exports of captive-bred gyrfalcons would not increase from their present modest level. Canada has received no expressions of interest to allow the export of wild gyrfalcons for commercial purposes in recent years" (Charles Dauphine, Canadian CITES Scientific Authority, *in litt.* to Office of Scientific Authority, U.S. Fish and Wildlife Service, November 1999).

7. Additional Remarks

The species qualifies for transfer to Appendix II pursuant to Resolution Conf. 9.24, as follows: The species does not qualify for retention in Appendix I. The species is not likely to satisfy one or more of the criteria for including a species in Appendix I within the next five years if it is transferred to Appendix II. The wild population in North America is greater than 5,000 individuals and has not been subjected to an observed, inferred, or projected decline in numbers or in the area and quality of its habitat. There has been no major historical decline in numbers or in area of distribution, nor can a future decline be inferred or projected on the basis of a decrease in area or quality of habitat, levels or patterns of exploitation, or other extrinsic threats other than the potential effects of climatic change. The potential negative effects of a split listing between these birds and Eurasian birds (e.g., increased potential for illegal trade, similarity of appearance) will be addressed by the zero export quota for wild caught birds. Any change in this quota would require prior approval of the Conference of the Parties, through submission of a proposal to a future meeting of the Conference of the Parties.

8. References

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