

CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA



Seventeenth meeting of the Conference of the Parties
Johannesburg (South Africa), 24 September – 5 October 2016

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

To transfer *Falco peregrinus* from Appendix I to Appendix II in accordance with the Precautionary Measures of Resolution Conf. 9.24 (Rev. CoP16) Annex 4.

B. Proponent

Canada*

C. Supporting statement

1. Taxonomy

- | | |
|---|---|
| 1.1 Class: | Aves |
| 1.2 Order: | Falconiformes |
| 1.3 Family: | Falconidae |
| 1.4 Species, including author and year: | <i>Falco peregrinus</i> Tunstall 1771 |
| 1.5 Scientific synonyms: | |
| 1.6 Common names: | English: Peregrine falcon
French: Faucon pèlerin
Spanish: Halcón blancuzco, Halcón real, Halcón viajero, Halcón peregrino, Halcón común |
| 1.7 Code numbers: | A-213.005.002.027 |

2. Overview

The peregrine falcon is an extremely widely-distributed species with a stable population trend and extremely large population size (Sections 3 and 4). It does not meet the biological criteria for listing on Appendix I. Peregrine falcons are traded internationally primarily as live birds for purposes of falconry or to supply breeding stock for captive breeders. Trade data indicate that an average of 552 live peregrine falcons are exported per year. Eighty-five percent of peregrine falcons in trade are captive-bred birds (Section 6.2).

The Precautionary Measures of Res. Conf. 9.24 (Rev. CoP16) indicate that a species in demand for international trade should only be transferred to Appendix II if certain precautionary safeguards are met. For a species in demand for trade, the Conference of the Parties must be satisfied with range State

* The geographical designations employed in this document do not imply the expression of any opinion whatsoever on the part of the CITES Secretariat (or the United Nations Environment Programme) concerning the legal status of any country, territory, or area, or concerning the delimitation of its frontiers or boundaries. The responsibility for the contents of the document rests exclusively with its author.

implementation of the Convention's requirements, and in particular must be satisfied with range State implementation of Article IV. The Conference of the Parties must also be satisfied that there are appropriate enforcement controls and compliance with the requirements of the Convention.

To assess whether the precautionary measures were met to allow transfer of the peregrine falcon to Appendix II, surveys were sent to countries that either currently trade the peregrine falcon as an Appendix I listed species or adjacent countries (Section 6). The 21 responding countries, "key traders," together account for 82% of export of peregrine falcons and 71% of import of peregrine falcons globally. Detailed responses of key traders are provided as an Information Document on peregrine falcon submitted by Canada. The information collected from the key traders, and other sources, allows for robust assessment as to whether a transfer to Appendix II would be in accordance with the Precautionary Measures of Res. Conf. 9.24 (Rev. CoP16).

Twenty of the 21 key traders clearly indicated that they have national protection for the species. Protection ranges from total prohibition on the capture, killing, owning, transporting, possession and trade of wild specimens and the practice of falconry; to countries where falconry is allowed and peregrine falcon can be harvested from the wild. None of the key traders indicated concerns with effectiveness of their national legislation for ensuring conservation of peregrine falcons and management of legal trade (Sections 7.1 and 8.1). Most key traders indicated that illegal trade was not an issue in their country (Section 6.4).

The impact of trade on the species associated with a transfer of peregrine falcons to Appendix II was considered (Section 6.5). National governments control allowable wild take, national use (including captive breeding), and issuance of CITES permits for trade. Decisions about national-level enforcement for an Appendix II species also remain under national-level control. The demand for peregrine falcons is expected to remain small in terms of number of birds and expected to remain specialized for falconry and related activities. It is expected that most of the birds for falconry will continued to be supplied by the well-established captive-bred industry. Existing international instruments and stakeholder engagement are effective in supporting regional and global efforts for conservation, sustainable management and trade of the peregrine falcon (Section 7.2). An Appendix II listing requires a non-detriment finding before export is allowed to ensure non-detriment of trade, and thus there will be ongoing review by range States prior to export. All factors considered, a transfer to Appendix II is a measure that is proportionate to the low risks to the species from international trade.

3. Species characteristics

3.1 Distribution

The peregrine falcon has an extremely large global distribution, one of the widest of any bird species. Peregrine falcons occur in North America, Africa, Europe, Asia, Australia, and South America. The species appears to be absent from the Amazon Basin, Sahara Desert, through the steppes of central and east Asia, New Zealand and Antarctica (White et al. 2002, Global Raptor Information Network 2014).

3.2 Habitat

Peregrine falcons inhabit a wide variety of habitats, including wet and dry, and hot and cool climates (del Hoyo et al. 1994). Peregrine falcons also inhabit highly-modified human environments and can thrive in these environments due to an artificially-high prey base and freedom from persecution (Chace and Walsh 2006). Kauffman et al. (2003) documented much higher fecundity and juvenile survival rates for urban versus rural peregrine falcons in California (Kirmse 2003).

Nesting sites may be the most important component determining suitable peregrine breeding habitat. Despite the global scale of their distribution across many biomes, nest-site characteristics are remarkably similar, and are usually naturally occurring cliffs and bluffs (e.g., Brambilla et al. 2006, Carrière and Matthews 2013) although some tree-nesting has been documented in both North America (Campbell et al. 1977) and Europe (Kirmse 2003). Additionally, in recent decades, peregrine falcons across their global range have also begun nesting more frequently on buildings and other man-made structures in built-up urban areas (Cade et al. 1996). Non-breeding adults ("floaters") can occur in areas with no suitable nesting habitat (White et al. 2002).

3.3 Biological characteristics

The peregrine falcon is a small- to medium-sized predator that specializes on birds. Small mammals, including bats, can form a significant part of their diet in some areas (e.g., Court et al. 1988). Long, pointed wings and well-developed flight muscles facilitate high speed flight and the peregrine falcon's characteristic high-speed mid-air attacks on prey.

Peregrine falcons typically raise one clutch of three to four eggs per season (Defenders of Wildlife 2016). The highest mortality of birds is in the first year of life (White et al. 2002), with mortality upwards of 60% (USFWS 2004). Peregrine falcon populations often contain a number of non-breeding adults ("floaters"). While they do not breed, they can serve as an important buffer to change if breeding adults are lost from the population, but can also result in increased competition for food that affects nestling survival (Millsap and Allen 2006; USFWS 2004). The lifespan of peregrine falcons is 7-15 years but birds can live as long as 20 years (White et al. 2002; Defenders of Wildlife 2016).

Generally speaking, populations at higher latitudes breed at those latitudes, and then migrate to lower latitudes along established flyways (Ganusevich et al. 2004, Goodrich and Smith 2008, Dixon et al. 2012), while populations at lower latitudes are non-migratory.

3.4 Morphological characteristics

The peregrine falcon is a medium-sized falcon exhibiting reverse sexual dimorphism, females being approximately one-third larger in all dimensions and in weight (White et al. 2002). Body size is the most reliable indicator for distinguishing males from females. Adult plumage is generally dark grey on the back and crown with broad malar stripes while the chest and breast are pale with dark barring and streaking. Juveniles have a brown back and head with a reduced malar area and pale chest and breast with dark barring and some streaking.

As a result of its large distribution, the species shows great variation in size and colour. Morphological differences are clearly defined by geography in some populations, but there is also much variation over vast reaches of large continental regions, making the boundaries of subspecies difficult to demarcate (White et al., 2013). There is not always consistency between morphological appearance of peregrines and available molecular data. In general, birds in northern latitudes are larger than those located further south.

3.5 Role of the species in its ecosystem

Because peregrine falcons are specialist bird predators, they may influence the migratory behaviour of other bird species such as passerines, shorebirds and some seabirds. Wintering shorebirds in Mauritania altered both their flocking behaviour and foraging patterns in response to peregrine falcon predation (Van Den Hout et al. 2008). Behavioural changes due to increases in peregrine falcon predation concurrent with recovering populations have even been linked to declines in shorebird body condition and numbers in British Columbia, Canada (Ydenberg et al. 2004). It is unlikely, however, that the viability of populations of other species is dependent on the role of the peregrine falcon in the ecosystem.

4. Status and trends

In 2015, the IUCN assessed the peregrine falcon as a species of 'Least Concern' (BirdLife International 2015). The European regional assessment also identifies the species as Least Concern (BirdLife International 2015).

4.1 Habitat trends

Habitat is generally not limiting for peregrine falcons. In recent decades, peregrine falcons across their global range have also begun nesting more frequently on buildings and other man-made structures in built-up urban areas (Cade et al. 1996).

4.2 Population size

The population size for the peregrine falcon is extremely large, and numbers are not near to the threshold that would establish the species as one of global concern. The global population size is

estimated at 228,800 to 443,000 mature individuals (BirdLife International 2015). Within its global range, peregrine populations at higher latitudes are more productive and have higher density than those populations closer to the equator, probably due to greater prey availability (Jenkins and Hockey 2001).

A literature review and a survey targeting key traders of peregrine falcon, provided more detailed information on country-level or continent-level populations, as summarized below. Presentation of population information for key traders allows for more detailed understanding of populations in relation to trade. Together, the key traders are range states for between 5,430 and 29,320 breeding pairs of peregrine falcon (which equates to an estimated 9,200-52,000 mature individuals), as reported in response to the survey. Further information on key traders is also summarized in sections 6-8, and is detailed in the Information Document on peregrine falcons submitted by Canada.

Africa: Peregrine falcons naturally occur at quite low densities in southern Africa (Jenkins 1997). For example, Simmons et al. (2008) estimated <100 pairs in the whole of Namibia, while estimates for other countries are of the same magnitude: 350-400 pairs in Zimbabwe, approximately 400 pairs in South Africa, 75-80 pairs in the Canary Islands, and <20 pairs in Cape Verde (Global Raptor Information Network 2014). Tunisia, a key trader in northern Africa, indicated a population size of 0-10 breeding pairs of peregrine falcon.

Asia including Middle East: In most areas of Asia, peregrine falcon populations appear stable. In Turkmenistan, the total breeding population has been estimated at 25-30 breeding pairs (Efimenko 2005). On Sri Lanka, the resident population of peregrine falcons was estimated at 25-30 breeding pairs (Döttlinger and Nicholls 2005). A minimum breeding population of 70-80 breeding pairs was estimated for the Malay peninsula (Molard et al. 2007). Of the nine key traders from the Asian continent, including the Middle East, most indicated no breeding population but China reported 100-1,000 breeding pairs and Mongolia reported 0-10 breeding pairs.

Australia and Oceania: The total population size for Australia has been estimated at 3,000-5,000 breeding pairs (Global Raptor Information Network 2014). There were no key traders from Australia or Oceania.

Europe: Across its European range (including Greenland) there are an estimated 14,900 – 28,800 breeding pairs of peregrine falcon (BirdLife International 2015). An estimate of 100-1500 breeding pairs in European Russia has been made but no comparable estimate has available for Asiatic Russia, although there are certainly more (Sielicki and Sielicki 2007). Greenland has approximately 16% of the continental population, followed closely by Spain at 14% and by Turkey at 11% (BirdLife International 2015). Of key traders, Greenland¹, Spain and the United Kingdom of Great Britain and Northern Ireland (United Kingdom) reported 1,000-5,000 breeding pairs in response to the survey. Finland, Germany and the Netherlands reported 100-1,000 breeding pairs, and Belgium, Czech Republic and Denmark reported between 10-100 breeding pairs of peregrine falcon.

North America: Based on survey data in the early to mid 2000s, an estimated 3,197 breeding pairs of peregrine falcon occur in North America (Global Raptor Information Network 2014). An estimated 170 breeding pairs occur in Mexico (Enderson et al. 1995). Canada reported 100-1,000 breeding pairs of peregrine falcon (but likely 1,000-5,000 due to a vast un-surveyed northern landscape (Environment Canada 2015)) and the United States of America (United States) reported 1,000-5,000 breeding pairs of peregrine falcon.

South America: Breeding activity has been recorded in Ecuador (Jenny et al. 1981) and Peru (Schoonmaker et al. 1985). In one of the few systematic surveys in the region, the length of the Chilean coast was surveyed and 140 breeding pairs were recorded (Global Raptor Information Network 2014). There were no key trader responses from South America.

¹ Denmark provided two responses, including one for Greenland. For purposes of this report, Greenland is enumerated and reported separately from Denmark because it is physically separated from Denmark, and peregrine falcons are managed separately with different legislation. Additionally, Greenland has different subspecies of peregrine falcon, different population sizes, different levels of peregrine falcon trade, and a relatively large population of peregrine falcon in comparison with Denmark.

4.3 Population structure

Peregrine populations consist of four age classes: juveniles (less than one year old), sub-adults, floaters (non-breeding adults) and breeding adults (Millsap and Allen 2006). The number of juveniles in a population is determined by the number of breeding pairs, with production dependent on the experience of the breeding pair and prey availability (Millsap and Allen 2006). The number of breeding adults is limited by prey availability and the number of nesting sites (Millsap and Allen 2006). Once all potential nesting sites are occupied, the average age of breeding pairs increases due to competition for nest sites, and the number of floaters increases (Millsap and Allen 2006).

4.4 Population trends

In the past, peregrine populations suffered severe declines due to the effects of organochloride pesticides such as DDT (See section 5). At present, global populations are currently either stable or increasing (Bird Life International 2015).

In many areas, peregrines have surpassed their pre-DDT population levels (e.g., Banks et al. 2003, Heinrich 2009, Holroyd and Banasch 2012, Altwegg et al. 2014). For example, historical peregrine falcon populations in the continental United States were approximately 670 pairs; by 1975 only 39 breeding pairs were detected and the peregrine falcon had been extirpated in the eastern United States. Intensive recovery efforts resulted in at least 1000 breeding pairs by 1999 (Heinrich 2009) and 1435 by the mid-2000s (Green et al. 2006).

A similar pattern of steep population declines followed by gradual recovery after DDT was banned, also occurred in Europe (Banks et al. 2003, Wegner et al. 2004), parts of Asia (Kokorev 2003, Döttlinger and Nicholls 2005, Efimenko 2005, Sielicki and Sielicki 2007), and South America (de Carvalho Filho et al. 2011). Many populations that did not experience a historical decline also appear to be increasing, often due to use of urban environments for breeding. In Cape Town, South Africa, urban peregrines have increased from 3 breeding pairs in 1997 to 18 in 2010 (Altwegg et al. 2014).

There are a few regional exceptions to the general global trend of stable or increasing populations. In Turkey, populations decreased over the decade from 1990-2000 (BirdLife International 2004), while in central Europe some small sub-populations never recovered from the DDT caused decline (Kirmse 2003). In Hungary, a pre-DDT population of 40-50 pairs had only recovered to 12 breeding pairs in 2007 (Sielicki and Sielicki 2007). Despite an overall increase in Canadian peregrine falcon numbers, low productivity has been recorded in some locations (Holroyd and Banasch 2012).

4.5 Geographic trends

Although peregrine falcon range around the globe contracted with local extirpations due to DDT, in almost all cases populations have recovered and recolonized their former range. The peregrine falcon currently has a wide and stable global range and has proven adaptable to co-existing with humans even in environments highly modified from their natural state, such as in urban areas. Thus it is likely that for the foreseeable future, peregrine falcon populations will persist in most areas of the globe.

5. Threats

At a global scale, peregrine falcon populations are considered secure. The peregrine falcon has an extremely large range, stable population trend, and extremely large population size (BirdLife International 2015). Threats to individuals and local populations still exist.

Environmental toxins were and probably still are the main threat to peregrine populations around the globe. Peregrine populations in North America and Europe declined significantly following World War II, mainly due to the widespread use of organochlorine pesticides such as DDT (Heinrich 2009), which caused eggshell thinning and breakage resulting in breeding failures and ultimately population declines.

In many countries, organochlorine use has been banned and these chemicals are decreasing in the environment (Jarman et al. 1994, USFWS 2003) and in peregrine falcon populations (Henny et al. 2009). Although global use of DDT has remained relatively constant in the first decade of the 21st century (van den Berg et al. 2012), the fact that peregrine falcon populations are stable or increasing around the world

suggests that current levels of DDT use are not having a significant impact on populations. Pesticide use in some countries may still having an impact on bird populations (Risebrough 1986, Molard et al. 2007).

Other threats include habitat alteration and destruction, especially of nesting areas, which can have an effect on local peregrine falcon populations; and weather, which can affect breeding (Bradley et al. 1997) and cause long-term declines in productivity (Ancil et al. 2013).

According to the IUCN, current threats from falconry are uncertain (BirdLife International 2015). Canada's survey of key traders indicates that controls on wild take and falconry exist for all of the 21 key traders except possibly Mongolia (response not clear). None of the key traders indicated concerns regarding the management of legal international trade associated with falconry. Illegal trade was not cited as a significant concern for most key traders (Section 6.4).

6. Utilization and trade

Peregrine falcons occur in over 200 countries and territories according to Species+. However, although the species is globally distributed, international trade is not. Over 95% of the trade occurs among the 24 countries shown in Figure 1.



Figure 1. World map showing countries with at least 1% of global export or import of peregrine falcon from 2010-2014 (dark red shading). Together these countries account for 95% of exports and 96% of imports.

Using this basic knowledge, information-gathering regarding the precautionary measures in place in the peregrine falcon range States was focussed on areas of highest risk or possible risk to wild peregrine falcon populations. Thirty-one key countries (including Canada) were identified as having either established trade in peregrine falcons; trade in other Appendix II falcons; or peregrine falcon populations that might be desirable for falconry. It was assumed that trade associated with these countries would represent the countries in which wild peregrine falcon populations could be most impacted by a transfer to Appendix II if appropriate precautionary measures were not in place. These countries were sent surveys to collect information on precautionary measures in place, and 21 responses were received (Figure 2). The information in the following sections draws heavily on submissions from these countries.

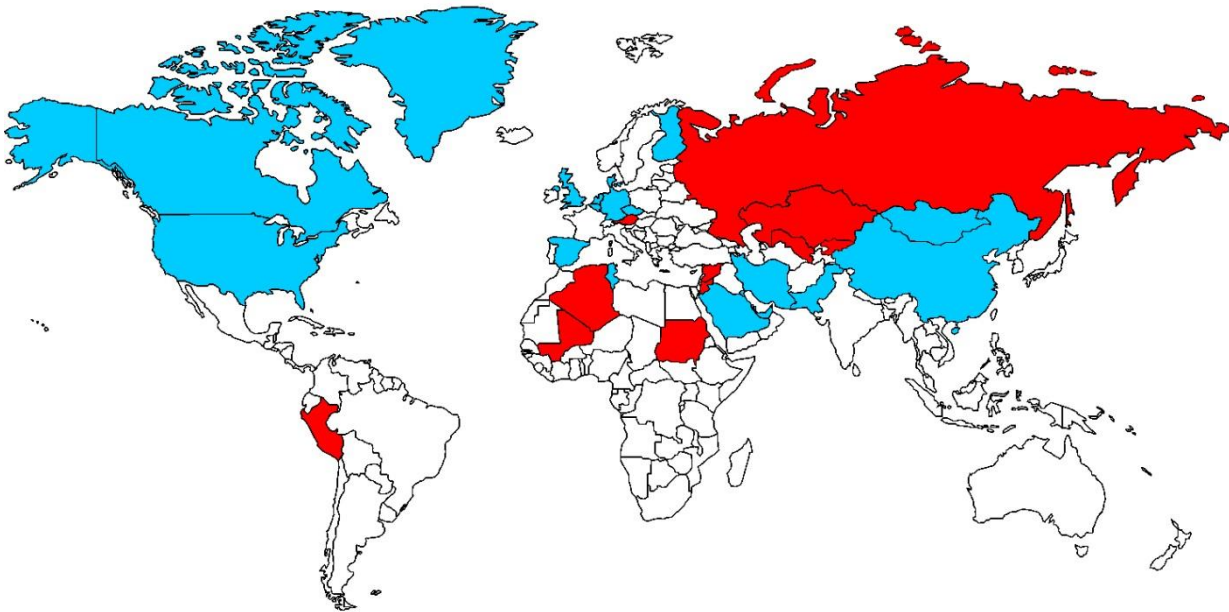


Figure 2. World map showing the 21 key traders surveyed for this report. The countries that completed surveys are shaded in light blue. The countries that were sent surveys, but that did not respond, are shaded in dark red.

6.1 National utilization

The peregrine falcon has historically been used extensively for the practice of falconry, which is defined as the art of hunting wild prey with trained raptors. Falconry is still the main driver of trade and use of peregrine falcons today (Kenward 2009). Falconry is a highly-organized sport represented globally by the International Association for Falconry and Conservation of Birds of Prey (IAF). The IAF currently has 110 member associations from 80 countries worldwide, totalling 60,000 members. These associations work actively with governments to conserve the species and promote the sport.

Today, falconry techniques are used for a variety of purposes, including traditional hunting; falcon speed competitions; educational displays and exhibitions; and nuisance-bird control in historic sites, landfills, crop sites, industrial complexes and airports (Reuter and Cooper 2016). Falconry techniques were also instrumental for conservation and recovery of falcons, when populations were reduced due to widespread use of DDT in the 1940 – 70s (IAF 2013), and they are still used today for recovery activities.

Larger falcons are favoured by falconers because the larger birds have greater hunting success with larger prey species (Reuter and Cooper 2016). To satisfy the desire for larger falcons, falconers may use species other than peregrine falcons (e.g., *Falco rusticolus*, *Falco cherrug*), larger peregrine falcons that occur in northern regions, or they may simply prefer female peregrine falcons over males (Reuter and Cooper 2016). However, a market exists for both sexes because males are used for activities such as speed competitions, hunting of smaller prey, nuisance-bird control, and flight exhibitions. Falconers prefer to acquire falconry birds as juvenile, first-year birds because they are generally easier to train than adults and they have already developed hunting skills in comparison with nestlings (Reuter and Cooper 2016). The majority of peregrine falcons currently used for these activities are captive bred (Reuter and Cooper 2016). However, wild-caught falcons are also used in some countries (see Section 7.1).

6.2 Legal trade

Data for this section was extracted from the CITES trade database on March 16, 2016 for the years 2010-2014, using the CompTab report. The most recent five years of available data were chosen to allow for examination of recent trade volumes and this method is consistent with that used for the Review of Significant Trade. The analyses include data associated with direct export. Additionally, data associated with first export out of the European Union, were included to ensure the dataset included all trade from European Union countries to countries outside the European Union. Only records reported by exporters were used because these data most accurately reflect the specimens

in trade: combining import and export data would result in the reporting of duplicate trade if different terms or codes were used by trading partners in their annual reports. Although there is known trade in hybrids of peregrine falcon, the CITES trade database only refers to “*Falco* hybrids” and it is therefore not possible to determine which species are involved. *Falco* hybrid trade data were not analyzed.

From 2010 to 2014, 2759 live peregrine falcons were exported, with an average of 552 peregrine falcons exported per year. Of these, 85% of exports were of captive-bred birds. Fifteen percent of exports were either of wild origin birds (278 birds), unknown origin birds (134 birds) or birds that were exported with no source code on the permit (15 birds).

As an Appendix I species, trade in specimens of wild origin is limited to non-commercial trade. Therefore, as expected, all live birds exported with source codes W and U were either exported with purpose codes P (personal) or N ((re-) introduction to the wild), except for one wild live falcon that was exported from South Africa to Swaziland as purpose code H (hunting trophy). Countries reporting export of birds with purpose code P were Qatar and Saudi Arabia. Countries reporting export of birds with purpose code N were United Arab Emirates, Qatar and Azerbaijan. Dead specimens of wild origin were exported as purpose code S (Scientific) and included 9 bodies, 63 eggs, 374 feathers, 8 shells (egg) and 199 specimens (e.g., blood samples).

There were 41 dead specimens (38 bodies, 2 trophies and 1 skeleton) of captive-bred origin exported for purposes T (commercial), Z (zoo) or P (personal). These were probably taxidermy specimens.

Trade of peregrine falcons is concentrated among relatively few countries in North America, Europe and the Middle East. There is a secondary pattern of trade associated with South American peregrine falcons. Examination of trade patterns indicates that Middle Eastern countries are the greatest importers and European countries are the greatest exporters of live peregrine falcons. Ninety-one percent of peregrine falcons exported from European countries are destined for countries in the Middle East (primarily to Qatar, Kuwait, Saudi Arabia and United Arab Emirates; Table 1). Similarly, 53% of birds from North America, and 91% of birds from North Africa and the Middle East are destined for Middle Eastern countries (Table 1). Details of trade volumes associated with individual countries are provided in the Information Document on peregrine falcons submitted by Canada.

Table 1: Exporters and destination countries for live peregrine falcons from 2010-2014.

Area	Percent of total exports and (number of birds) from each Area	Destination for the area's exports as percent of total area export					
		Europe	North America	North Africa and Middle East	South America	Other Asia (not in Middle East)	Other: Southern Africa or Australia
Europe	71% (1961 birds)	3	0	91	0	6	0
North America	9% (248 birds)	13	8	53	1	24	2 (Australia)
Middle East and North Africa	18% (489 birds)	9	0	91	0	0	0
South America	2% (52 birds)	12 (France, Spain)	60 (Mexico)	0	29	0	0
Other Asia	0% (0 birds)	0	0	0	0	0	0
Southern Africa	<1% (9 birds)	0	0	0	0	0	100 (Southern Africa)
Total export	100% (2759 birds)						

The key traders account for 82% of the total export and 71% of the total import of peregrine falcons. The key traders that did not respond to the survey account for 13 % of the total export and 15% of the

total import of peregrine falcons. Other traders that were not sent the survey accounted for 5% of the total export and 14% of the total import.

6.3 Parts and derivatives in trade

See Section 6.2.

6.4 Illegal trade

This section discusses illegal trade under the current Appendix I listing. Possible illegal trade resulting from a transfer to Appendix II is discussed in Section 6.5.

The scale of illegal trade is difficult to assess due to its criminal and therefore covert nature. Illegal trade in falcons is known to occur, although the peregrine falcon is not the most sought-after species. The best recent information available for peregrine falcons to document the existence of illegal trade is reports of seizures or court cases. An internet search found media reports of recent peregrine falcon seizures and smuggling that demonstrate that illegal trade in peregrine falcons occurs. For example, there are recent reports from Pakistan (The Express Tribune 2014; Dhakku 2012, Pakistan Today 2014), Europe (Raptor Politics 2014, 2015), Russia (Hot News 2015; Siberian Times 2015) and South America (The Guardian 2016). These reports suggest that the demand comes primarily from Middle Eastern countries, for falconry purposes. Two workshops were attended by CITES Parties in 2004 and 2005 in Abu Dhabi, United Arab Emirates (SC51 Doc. 13; SC54 Doc. 38) to better understand underlying issues associated with illegal trade in falcon species, including the peregrine falcon. A primary outcome of the meeting was a guide for enforcement officers to recognize indicators of illegal activity.

Of key traders, Bahrain, Canada, Greenland, Qatar, the United Arab Emirates, the United States and most of the European Union member countries indicated they did not have concerns regarding illegal trade. However, Iran, the Netherlands and Pakistan expressed concern about effectiveness of existing legislation in addressing illegal trade. Iran noted that there are many ways to illegally import and export falcons from their country, and that the lack of enforcement and cooperation, and weak understanding about CITES regulations presented challenges. The Netherlands indicated that fraudulent papers and the illegal use of closed leg rings have been reported for captive birds of prey in the Netherlands. Pakistan noted limited illegal wild capture and subsequent smuggling of peregrine falcons have been reported, and cited challenges of lack of capacity by enforcement staff; limited enforcement infrastructure; remoteness of border areas; and illegal trade via sea-routes.

6.5 Actual or potential trade impacts

Current trade of peregrine falcon is not a threat to the species. The wild population size is large. Most of the trade is in captive-bred individuals. Trade in wild birds is low and for non-commercial purposes. Current conservation efforts and trade controls are effective (Section 7.1, 8.2) and illegal trade is not a significant concern for most key traders.

The Precautionary Measures in Res. Conf. 9.24 (Rev. CoP16) specify that Parties should act in the best interest of the conservation of the species concerned and adopt measures that are proportionate to the anticipated risks to the species when considering a transfer to Appendix II. Estimation of the risks to wild populations associated with a transfer to Appendix II requires consideration of implementation by the range States of the requirements of the Convention for the species; the biology of the species; and the capacity of the market to increase. These are discussed below in consideration of responses by key traders regarding possible impacts of a transfer. All factors considered, a transfer to Appendix II is a measure that is proportionate to the low risks to the species from international trade.

Implementation of the Convention: A transfer of the peregrine falcon to Appendix II could result in increased legal trade or illegal trade of wild birds, with the potential to harm wild populations. However, key traders generally indicated that national-level controls were robust and effective at protecting wild falcons from overharvest and unsustainable or illegal trade (Sections 7.1, 8.2). Indeed, the recovery of wild populations of peregrine falcon in many countries has resulted from national-level protection and management efforts (Section 8.1). National governments control allowable wild take, national use, and issuance of CITES permits for trade (including non-detriment findings). Decisions about national-level enforcement for an Appendix II species also remain under national-level control.

Most key traders indicated that national-level controls would not change as a result of a transfer of peregrine falcons to Appendix II.

Range States can control whether captive breeding is permitted, and implement any necessary controls to manage captive breeding operations to manage risks to wild populations. For example, closed leg-ring systems of identification for captive birds can be effective at preventing laundering of wild birds of the favoured age class (juvenile birds; section 6.1).

International instruments are already in place to support regional and global efforts aimed at the conservation and sustainable management and trade of the peregrine falcon and its habitat (Sections 7.2, 8.1). Stakeholders are also engaged in conservation efforts. The International Association for Falconry and Conservation of Birds of Prey and their affiliated national associations work with members and governments towards sustainable use of falcons (Section 6.1).

An Appendix II listing requires a non-detriment finding before export is allowed to ensure non-detriment of trade, and monitoring the impact of trade on the species. There are provisions under CITES to address unsustainable trade, through the Review of Significant Trade, should concern arise due to levels of wild take (Section 8.6)

Biology of the species: Juvenile birds are the preferred age group associated with take from the wild for falconry because these birds have already developed hunting skills and are generally easier to train than adults (Section 6.1). This age group has high natural mortality and is not yet part of the breeding population (Section 3.3). Removal of juvenile birds from peregrine falcon populations has a lower impact on the wild population compared with take of adult birds and is considered an effective management strategy for limiting effects of take from the wild (Millsap and Allen 2006; Section 4.3). For example, it has been estimated that a 5% level of take of nestlings or juveniles is so small as to be undetectable in population monitoring, and that healthy populations can sustain 10-20% removal of juveniles (USFWS 2004). Additionally, in healthy populations, the active breeding population can be much smaller than the number of adults, and thus some wild take of adults could occur without harm (and possibly with benefit if prey is scarce) to the wild population (Section 3.3). Thus, the structure of healthy peregrine falcon populations provides some natural resiliency to either legal or illegal take that would serve to guard against population declines.

Market Capacity: It is possible that eased trade restrictions associated with captive-bred birds, resulting from an Appendix II listing, could stimulate the falconry market. However, it seems unlikely that the change would be large enough to have a negative impact on wild falcon populations. Currently the market for live falcons is very small in terms of number of birds, and is expected to remain small and specialized for falconry and related purposes (Reuter and Cooper 2016; Reuter pers. comm. 2016). Most of the birds in trade are captive bred (Section 6.2), and this is likely to continue because the captive-bred falcon industry is well-established. The peregrine falcon is not necessarily the most sought-after species for falconry due to its smaller size compared with other falcons, and this is unlikely to change.

7. Legal instruments

7.1 National

Twenty of the 21 key traders clearly indicated that they have national protection for the species either specifically or through general wildlife regulations (Table 2). National regulations for falcons can be loosely organized into three categories: those that protect the species as vulnerable or recovering, those that allow the possession of raptors for falconry purposes and breeding (primarily using captive-bred falcons), and those that allow wild take for the purpose of falconry or breeding. Accordingly, protection ranges from total prohibition of the capture, killing, owning, transporting, possession and trade of wild specimens and the practice of falconry; to countries where falconry is allowed and peregrine falcons can be harvested from the wild.

None of the key traders indicated concerns with effectiveness of their national legislation for ensuring conservation of the peregrine falcon and management of legal trade (see also Section 8.2). Section 6.4 provides information on the effectiveness of legislation in addressing illegal trade. Most indicated that they did not expect any change to national-level controls as a result of a transfer of the peregrine falcon to Appendix II.

Table 2. A summary of the national use of live peregrine falcon. The information in this table is presented as reported in survey responses. Question marks indicate that the response received was not clear. The notation n/a indicates that the question was not answered.

Key Trader	Nationally Protected?	Wild take	Captive breeding	Falconry
Bahrain	Yes	Not permitted	No captive breeding operations	Permitted
Belgium	Yes	Flemish Region: Not permitted	Permitted	Permitted
		Brussels Capital Region: Possible with permits (?)	Permitted	Not permitted
		Walloon Region: n/a	n/a	n/a
Canada	Yes	Permitted (very limited)	Permitted	Permitted
China	Yes	Possible with permits (?)	No captive breeding operations (?)	n/a
Czech Republic	Yes	Not permitted	Permitted	Permitted
Denmark	Yes	Not permitted	Permitted	Not permitted
Finland	Yes	Not permitted	Not permitted	Not permitted
Germany	Yes	Not permitted	Permitted	Permitted, with captive-bred birds only
Greenland	Yes	Not permitted	Not permitted (?)	Not permitted
Iran	Yes	Not permitted	Permitted	Permitted, but not for hunting
Kuwait	Yes	Not permitted	(?)	Not permitted (those wishing to pursue the activity must do it in a different country)
Mongolia	No? (no regulations specific to peregrine falcon but a permit is required for wild take)	Permitted	(?)	Permitted
Netherlands	Yes	Not permitted	Permitted	Permitted
Pakistan	Yes	Not permitted	Not permitted	Permitted for guest dignitaries only
Qatar	Yes	Not permitted	(?)	Permitted

Key Trader	Nationally Protected?	Wild take	Captive breeding	Falconry
Saudi Arabia	Yes	Permitted	(?)	Permitted
Spain	Yes	Not permitted	Permitted	Permitted, with captive-bred birds only
Tunisia	Yes	Permitted	No captive breeding operations	Permitted, may capture and keep a single bird
United Arab Emirates	Yes	Not permitted	Permitted	Permitted, with captive-bred birds only
United Kingdom	Yes	Permitted for wild-disabled birds	Permitted	Permitted
United States	Yes	Permitted in certain states	Permitted	Permitted

7.2 International

International instruments support regional and global efforts aimed at the conservation and sustainable management of the peregrine falcon and its habitat. They are essential to the sustainable management of a migratory species. There are three primary international agreements cited by key traders that pertain to the international legal protection of the peregrine falcon, summarized below.

The Convention on the International Trade of Wild Fauna and Flora (CITES): The species *Falco peregrinus* was listed on CITES Appendix II in 1975 except for the subspecies *F. p. tundrius*, *F. p. peregrinus* and *F. p. anatum*, which were listed on Appendix I. All the Appendix II subspecies of the peregrine falcon were transferred to Appendix I in 1977.

The Convention on Migratory Species (CMS): Also known as the Bonn Convention, the goal of CMS is to conserve migratory species throughout their range. The peregrine falcon is listed in CMS Appendix II, which includes species that either requires international agreements for their conservation and management, or that have a conservation status that would significantly benefit from international cooperation. A *Memorandum of Understanding (MOU) concerning the Conservation of Migratory Birds of Prey of prey in Africa and Eurasia*² came into effect November 1, 2008 and is currently signed by 56 range States (as of March 9, 2016) and three cooperative Partners, including the International Association for Falconry and Conservation of Birds of Prey (IAF). Currently, two thirds of key traders are signatories to CMS and the conservation MOU. An Action Plan in Annex 3 of the MOU categorizes the peregrine falcon in Category 3, which includes migratory species other than those globally Threatened or Near Threatened (Category 1) and species considered to have unfavourable conservation status at the regional level (Category 2).

European Union: The peregrine falcon is listed in Annex A of the EU Wildlife Trade Regulations (European Union 1997). As such, there are strict import and export controls in place that must be implemented by all European Union countries.

The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) aims to ensure conservation of wild flora and fauna species and their habitats by means of cooperation between states. It has been signed by all Member States of the Council of Europe (except San Marino and Russian Federation), the European Union, and a small number of non-European members (Belarus, Burkina Faso, Morocco, Senegal, and Tunisia; BirdLife International 2016; Council of Europe 2016). The peregrine falcon is listed as a strictly protected fauna species in Appendix II of the Bern Convention.

² <http://www.cms.int/raptors/en/page/agreement-text>

To implement the Bern Convention in the European Union, the *EU Birds Directive* was adopted in 1979. The *EU Birds Directive* protects migratory species and their habitat, and generally bans activities which could threaten birds that are naturally occurring in the EU (European Union 2009). Several of the key traders are members of the EU (Belgium, Czech Republic, Denmark (Greenland), Finland, Germany, the Netherlands, Spain and the United Kingdom) and are required to implement both the *EU Wildlife Trade Regulations* and the *EU Birds Directive* through national legislation.

The European Union range States are not all significant players in the trade of peregrine falcon, but it is worth noting that when considering all European Union range States together with all of the key trading countries that have national legislation (i.e., excluding Mongolia), it is possible to account for 96% of peregrine falcon exports and 72% of peregrine falcon imports globally between 2010 and 2014. This means that the strict controls in the European Union apply to the vast majority of peregrine falcon trade in the world. The trade restrictions imposed by the *EU Wildlife Trade Regulations* for peregrine falcons are stricter than those required by a CITES Appendix II listing. According to key traders, the trade controls would be unlikely to change in the event of a transfer of the peregrine falcon to Appendix II.

8. Species management

8.1 Management measures

Wild peregrine falcon populations have recovered and grown globally, often through management efforts focussed on recovery of the species.

Management efforts have included close monitoring, collaboration between countries for shared populations, and enforcement of the existing national and international legal frameworks. In many instances, captive breeding and contributions of falconers were key factors in the recovery of peregrine falcons. In Belgium, Canada, the Netherlands, Spain, and the United States, specific programs have been developed for the recovery of peregrine falcon populations that include placing artificial nests in key sites and/or releasing individuals in areas with historical distribution. While Belgium and Spain indicate that efforts are still ongoing, the United States and Canada consider that such efforts are no longer necessary because populations have recovered and are now in good shape.

8.2 Population monitoring

According to the information provided by key traders, the majority have ongoing efforts for conservation and monitoring of peregrine falcons in their territories. In Belgium, Canada, Czech Republic, Denmark, Germany, the Netherlands, Spain, the United Kingdom and the United States, academic and civil society groups monitor nesting sites and wild populations, and generally assure the conservation, protection and population health of the species in the wild. These efforts appear to be quite successful in Belgium where monitoring breeding peregrine falcon populations is becoming increasingly difficult as the population is growing steadily. Similarly, in the Netherlands the population has grown from a single breeding pair in 1990, to 160 pairs today.

8.3 Control measures

8.3.1 International

There are a number of international-level control measures within existing international instruments as detailed in Section 7.2.

8.3.2 Domestic

See sections 6.4, 7.1 and 8.1 for more information on national-level controls that are aimed at ensuring a sustainable harvest of wild peregrine falcons and the effectiveness of these controls.

8.4 Captive breeding and artificial propagation

Captive breeding of peregrine falcons was initially focused on recovering populations that had been reduced due to widespread DDT use in the 1940 to the 1970s (IAF 2013). Captive breeding was used

extensively to produce young birds for release into the wild. These programs were very effective, and in many cases have stopped due to the full recovery of the species in those regions (Reuter and Cooper 2016; Cade and Burnham 2003).

Currently peregrine falcons are bred in captivity in significant numbers to fulfill the demand for peregrine falcons in regions such as North America, Europe or the Arab countries (Heinrich 2009, Kenward 2009, Fleming et al. 2011). Captive-bred birds are trained to hunt like wild falcons so that they are more desirable as falconry birds. Trade data indicate that 85% of the legal trade of peregrine falcon between 2010 and 2014 involved captive-bred falcons.

Captive breeding of peregrine is permitted by each key trader except for Finland and Pakistan (Table 2). Five key traders indicated that no captive breeding exists in their countries (Greenland, Kuwait, Mongolia, Qatar and Tunisia), but it was not clear whether it is permitted or not. There are CITES-registered breeding operations for the peregrine falcon or peregrine falcon hybrids in Canada, Czech Republic, Denmark, Germany, Serbia, Spain, United Kingdom, and the United States.

8.5 Habitat conservation

Peregrine falcons are general protected when they occur in protected areas such as national parks or in wildlife management areas. Many countries indicated that existing national legal frameworks also specifically consider the protection of habitats for the species. For example, the *EU Birds Directive* protects migratory species and their habitat, and generally bans activities which could threaten birds that are naturally occurring in the EU (European Union 2009).

8.6 Safeguards

Safeguards have been mentioned throughout the proposal. These include national protection and management provisions for recovery of wild populations and establishment of legal take (Section 7.1). Safeguards also include an international Raptor MOU under the Convention on Migratory Species (Section 7.2.2), and a well-managed supply of captive-bred peregrines that provides an alternative source to the take from the wild (Section 8.4). Falconry stakeholders also serve as an important safeguard: The International Falconry Association represents the falconers (Section 6.1) and provides information and guidance to its members in 80 countries to support sustainable, legal take.

Under CITES, certain safeguards apply to all Appendix II falconry birds. These include the continued requirement for exporting countries to issue export permits with legality findings and non-detriment findings (Res. Conf. 16.7) and to undertake Article IV monitoring of trade. Ongoing monitoring of trade volumes and trends also occurs as part of the Review of Significant Trade (Resolution Conf. 12.8 (Rev. CoP13), and through this process Parties are held accountable to the Appendix II provisions associated with non-detriment of trade.

9. Information on similar species

Many falcons are similar in appearance and juveniles are difficult to identify. Trade in all falcons is controlled through CITES under the listing of *Falconiformes spp.*, in either Appendix I or II.

10. Consultations

Canada contacted 31 peregrine falcon range States that currently trade in peregrine falcon, trade in other falcon species, or that have peregrine falcon populations that might be desirable for falconry. Twenty-one responses were received. The information received is summarized in this proposal where relevant, and in more detail in Canada's information document on peregrine falcon.

One hundred forty-five other countries identified as peregrine falcon range States in Species+ were sent consultation letters dated January 22, 2016. Seventeen responses were received by April 21, 2016, from Australia, Barbados, Bosnia and Herzegovina, Cape Verde, Chile, Colombia, Georgia, Greece, Italy, Jamaica, Mozambique, Myanmar, Norway, South Africa, Thailand, Turkey and Viet Nam. The responses are summarized in the Information Document on the peregrine falcon submitted by Canada.

11. Additional remarks

None

12. References

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