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

Eighteenth meeting of the Conference of the Parties
Colombo (Sri Lanka), 23 May – 3 June 2019

CONSIDERATION OF PROPOSALS FOR AMENDMENT OF APPENDICES I AND II

A. Proposal

The Proponents propose the listing of *Giraffa camelopardalis* on CITES Appendix II in accordance with Article II, paragraph 2 (a), of the Convention: "all species which although not necessarily now threatened with extinction may become so unless trade in specimens of such species is subject to strict regulation in order to avoid utilization incompatible with their survival." The species also meets Criterion B of Resolution Conf. 9.24 (Rev. CoP17), Annex 2a: "It is known, or can be inferred or projected, that regulation of trade in the species is required to ensure that the harvest of specimens from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences." In addition, the species meets the precautionary measures found in Annex 4 of that Resolution: "when considering proposals to amend Appendix I or II, the Parties shall, by virtue of the precautionary approach and in case of uncertainty either as regards the status of a species or the impact of trade on the conservation of a species, 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.

B. Proponents

Central African Republic, Chad, Kenya, Mali, Niger and Senegal[*]:

C. Supporting statement

1. Taxonomy

1.1 Class: Mammalia

1.2 Order: Cetartiodactyla

1.3 Family: Giraffidae

1.4 Genus, species or subspecies, including author and year:

Genus: *Giraffa (*Linnaeus, 1758)

Species: *G. camelopardalis* (Linnaeus, 1758)

Subspecies: *G. c. angolensis (*Lydekker, 1903); G. c. antiquorum (Jardine/Swanson, 1835); G. c. tippelskirchi (Matschie, 1898); G. c. camelopardalis (Linnaeus, 1758); G. c. reticulata (De Winton, 1899); G. c. rothschildi (Lydekker, 1903); G. c. giraffe (von Schreber, 1784); G. c. thornicrofti (Lydekker, 1911); G. c. peralta (Thomas, 1898).

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[*] *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.*

The IUCN giraffe and okapi specialist group recognizes one species and nine subspecies (Muller et al., 2016). This proposal addresses all giraffes as one species. Wilson and Reeder (2005) also recognize one species. Several authors have proposed more than one species be recognized. Most recently, Fennessy et al. (2016) proposed four species and five subspecies.

1.5 Scientific synonyms: None.

1.6 Common names:

Species or Subspecies	**English**	**French**	**Spanish**
G. camelopardalis	Giraffe	Girafe	Jirafa
G. c. angolensis	Angolan giraffe	Girafe d'Angola	Jirafa Ahumada (Jirafa de Angola)
G. c. antiquorum	Kordofan giraffe	Girafe de Kordofan	Jirafa de Kordofán
G. c. tippelskirchi	Masai giraffe	Girafe Masaï	Jirafa Masai
G. c. camelopardalis	Nubian giraffe	Girafe de Nubie	Jirafa Nubia
G. c. reticulata	Reticulated giraffe	Girafe réticulée	Jirafa reticulada
G. c. rothschildi	Rothschild's giraffe	Girafe de Rothschild	Jirafa de Rothschild
G. c. giraffa	South African giraffe	Girafe d'Afrique du Sud	Jirafa de Sudáfrica
G. c. thornicrofti	Thornicroft's giraffe	Girafe de Rhodésie /Girafe de Thornicroft	Jirafa de Rodesia /Jirafa Thornicroft
G. c. peralta	West African giraffe	Girafe d'Afrique de l'Ouest (also called Girafe du Niger)	Jirafa nigeriana

1.7 Code numbers:

2. Overview

This proposal is to list *Giraffa camelopardalis* in Appendix II of the Convention.

Giraffes are the tallest land mammal, with males and females averaging 5.3 meters and 4.3 meters respectively (Nowak & Walker 1999, in Seymour, 2001). The IUCN SSC Giraffe and Okapi Specialist Group currently recognizes a single species, *Giraffa camelopardalis* and nine subspecies, all of which live in Africa. Giraffes are distributed across 19 African range States. Giraffes can be found throughout sub-Saharan Africa but are primarily located in savanna and woodland habitats (Muller et al., 2016). Giraffes' coats and their unique patterns may help them identify kin (Bercovitch & Berry, 2013), and they have a low reproductive output that makes them susceptible to over-exploitation. Female giraffes become sexually mature at 3-4 years but the average age at first birth is 6.4 years. Gestation is about 15 months and, typically, only one calf is born. The generation time is 10 years.

In 2016, the IUCN Red List of Threatened Species updated its assessment of *Giraffa camelopardalis* to "Vulnerable," citing an ongoing population decline between 36% and 40% over the last 30 years or three generations (Muller et al., 2016). The previous IUCN assessment, conducted in 2010, considered the species of "Least Concern," but two subspecies (G. c. peralta and G. c. rothschildi) were assessed as "Endangered" in 2008 and 2010 respectively (Muller et al., 2016; Shorrocks, 2016). In addition, the IUCN assessments for the reticulated giraffe (*G. c. reticulata*) was recently updated to "Endangered" (Muneza et al., 2018), and the Nubian (*G. c. camelopardalis*) and Kordofan (*G. c. antiquorum*) giraffe were both updated to "Critically Endangered" (Wube et al., 2018; and Fennessy & Marais, 2018, respectively).

Giraffes are in decline due to habitat loss and conversion, legal and illegal offtake, and use in trade (Muller et al., 2016). While exploitation for trade may not be the primary cause of decline in wild giraffe populations,

it nevertheless has an additive effect when combined with the main causes of habitat loss, civil unrest, and poaching for bushmeat. Indeed, a listing on Appendix II for the giraffe would not prohibit trade; rather, it would put in place monitoring and control measures to ensure that overexploitation for trade does not exacerbate the decline in this species. Giraffes are targeted for bushmeat (Okello et al., 2015) and food (Khalil et al., 2016). They are also used for jewelry, bracelets, skins, mounts, carved bone, tails, and purses (Khalil et al., 2016).

Giraffe specimens are traded internationally, although the country of origin, the subspecies, and whether the specimens in trade were legally acquired, are unknown. Import data from the United States (2006-2015) (see Section 6.2, Annex A) documents a growing giraffe bone carvings, including those used for knife and gun handles. In addition, on average 2006-2015, the United States imported more than one giraffe hunting trophy a day. In addition, a total of 321 giraffe products were found for sale online in seven E.U. countries (see Section 6.2 and Annex B), indicating the existence of a substantial market there as well. Given that the giraffe population is declining and the conservation status of the species is deteriorating, trade in specimens of this species requires "strict regulation in order to avoid utilization incompatible with their survival." CITES, Art. II, para. 2(a).

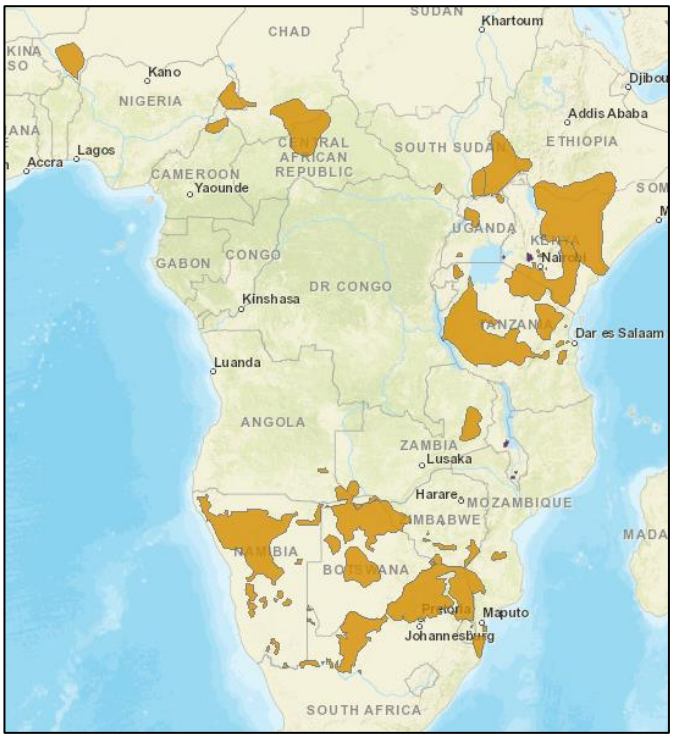
The giraffe meets Criterion B in Annex 2a of Resolution Conf. 9.24 (Rev. CoP17): The species has faced a precipitous population decline and given the animal's low reproductive output, could decline further very rapidly. Giraffes have historically been sought for their hair, tails, medicinal and magical purposes (Espinoza et al., 2008; Muller, 2008; Khalil et al., 2016), but more recently have been increasingly hunted and poached for bushmeat (Okello et al., 2015; Marais et al., 2013; Byers et al., 2013; Du Raan et al., 2016; Strauss et al., 2015). Limited available trade data also indicates that giraffe bones are frequently in trade being used for carving or as substitutes for ivory in knife and gun handles, and that skins and other pieces are also used commercially. Taking these factors together "regulation of trade in the species is required to ensure that the harvest of specimens from the wild is not reducing the wild population to a level at which its survival might be threatened by continued harvesting or other influences."

The precautionary approach described in Annex 4 of Resolution Conf. 9.24 (Rev. CoP17) also applies for the giraffe. While there is still trade data to collect and analyze, the existing information indicates that trade is an emerging threat to this species and the 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."

3. Species characteristics

3.1 Distribution

According to the IUCN Red List assessment (Muller et al., 2016) the giraffe is extant in Botswana, Cameroon, Central African Republic, Chad, the Democratic Republic of Congo, Ethiopia, Kenya, Mozambique, Namibia, Niger, Somalia, South Africa, United Republic of Tanzania, Uganda, Zambia, and Zimbabwe; extant (resident) in Angola and South Sudan; possibly extinct in Mali; and extinct in Eritrea, Guinea, Mauritania, Nigeria and Senegal. A 2017 proposal to list the giraffe under the Convention on Migratory Species indicated that the species had become extinct in Burkina Faso as well (CMS, 2017). While the species occurs south of the Sahara through most of Africa, it maintains only a fraction of its historic range due to human population expansion and increased aridity (Muller et al., 2016; Dagg, 1971). West and Central African populations are fragmented and scattered (Muller et al. 2016). In West Africa, giraffes historically ranged from Senegal to Lake Chad, but now only a small population of the West African giraffe (G. c. peralta) remains in Niger (Suraud et al., 2012). In Central Africa, giraffes remain in some protected areas and their surrounds in southern Chad, northern Cameroon, northern Central African Republic (CAR), South Sudan, and northeastern Democratic Republic of the Congo (DRC) (Muller et al., 2016). In East Africa, the giraffe range has been severely reduced in Ethiopia, Somalia, South Sudan, and Uganda, but has remained relatively stable in Kenya and Tanzania (East, 1999). An isolated, but stable, population of Thornicroft's giraffe (G. c. thornicrofti) persists in northeastern Zambia (Du Raan et al., 2015; East, 1999). Studies have indicated inbreeding depression in some of these small populations as a result of their small numbers and isolation (Brenneman et al. 2014; Huebinger et al., 2002). In southern Africa, giraffes retain much of their range in Namibia, Botswana, South Africa, and Zimbabwe, but were severely reduced or even extirpated in Angola and Mozambique (East, 1999). Giraffes have been translocated into protected areas in several countries both within their native range (northeastern South Africa, Kenya, Uganda, Mozambique, Angola, northeastern Zambia, and others) and outside their range (parts of South Africa, southwestern Zambia, Swaziland, and Rwanda).



Giraffe Range Map. Source: IUCN (Muller et al., 2016)

3.2 Habitat

Giraffes can be found throughout sub-Saharan Africa but are primarily located in savanna and woodland habitats (Muller et al., 2016). Giraffes can have large home ranges where they encounter a wide variety of vegetation types (Skinner & Smithers, 1990, in Parker & Bernard, 2005). There are differences in habitat preferences between sexes due to males preferring habitats offering taller browse, while females select habitats with lower browse (Pellew, 1984).

Giraffes do not drink water every day (Muller et al., 2016), but tend to stay in areas near rivers especially during the dry season because these areas offer permanent food and water supply (Fennessy, 2004; Leuthold & Leuthold, 1978). Giraffes also tend to avoid areas where predators, especially lions and leopards, may be located and prefer open scrub and open woodlands as habitats less likely to contain predators (Thaker et al., 2011). Giraffes are vulnerable to predators when drinking water and maintain a high level of vigilance for predators when at watering holes (Creel et al., 2014; Periquet et al., 2010).

3.3 Biological characteristics

Giraffes have a low reproductive output that makes them susceptible to over-exploitation. Female giraffes become sexually mature at 3-4 years but the average age at first birth is 6.4 years (Bercovitch & Berry, 2009; Bercovitch and Berry, 2015). Gestation is about 15 months and, typically, only one calf is born. Calves stay with their mothers for 22 months. Giraffes in the wild live for about 25 years, and the oldest documented age at giving birth in the wild is 24 years; thus, giraffes have a maximum breeding lifespan of 18 years over which time they may give birth to one calf every 677 days, or about 9-10 calves in a female's lifetime. However, in one study, half of all calves born died (Bercovitch & Berry, 2009). The generation time is 10 years.

3.4 Morphological characteristics

Giraffes are best known for their long necks, legs, eyelashes, and dark tongues, as well as their distinctive coat patterns. Their necks and tongues enable them to reach and process forage that few other mammals can access (Pretorius et al., 2015; Simmons & Altwegg, 2010), but their neck length may also have been sexually selected because it increases the likelihood of success among males in competition for dominance and access to females (Simmons & Scheepers, 1996). Giraffes' coats and their unique patterns may help them identify kin (Bercovitch & Berry, 2013).

Giraffes also have long legs and are the tallest land mammal, with males and females averaging 5.3 meters and 4.3 meters respectively (Nowak & Walker, 1999, in Seymour, 2001). Males weigh roughly

1,200 kg and females roughly 830 kg (Owen-Smith, 1992, in Seymour, 2001). Due to their height, giraffes have the highest blood pressure of any land mammal. Their height also poses challenges for drinking water or reaching resources on the ground because their necks do not bend low enough to reach land. As a result, giraffes kneel or splay their legs to reach the ground or water (Seeber et al., 2012). Giraffes have special physiological adaptations to regulate blood flow to the brain depending upon the height of the head (Brøndum et al., 2009). They are most vulnerable to predation when reaching to the ground because of their inability to kick, which is their primary defense (Periquet et al., 2010; Seeber et al., 2012).

Giraffes are born with their ossicones (a morphological feature that is akin to horns but unique to giraffids and referred to as parietal horns). The ossicones only fuse to their skull when the giraffe reaches sexual maturity (Davis et al., 2011).

Dagg (1971) classified nine separate subspecies of giraffe based on morphology and, until recently, this classification was the most frequently consulted for the status of giraffe taxonomy (Dagg, 1971; Seymour, 2012). The nine species have been delineated based on coat pattern, head shape, and ossicones.

3.5 Role of the species in its ecosystem

Giraffes play an important role in the savanna ecosystem by balancing the impact of heavy grazing of grasses by ungulates (monocot feeders) through their browsing of trees and shrubs, which ensures that neither becomes too dominant in the landscape (Walker, 1985; Owen-Smith 1988). Giraffe also indirectly reduce the density of trees by keeping small trees at a low height and taller trees with fewer branches that hang to the ground, having an overall effect of creating a more open vegetation structure that benefits other animals such as greater kudu and impala (Sinclair, 2003).

4. Status and trends

4.1 Habitat trends

Habitat loss and fragmentation are one of the primary causes of giraffe population decline (Fennessy, 2004; Muller et al., 2016). Indeed, giraffes have experienced severe habitat loss and fragmentation as a result of increased human settlement; expansion of agricultural activities; conversion of land to industrial plantations (e.g., sugarcane); the uncontrolled harvesting of timber and wood for various uses, including firewood, logging, and charcoal production for both personal and commercial purposes; and poor land use planning (Muller et al. 2016; Okello et al., 2015). This situation is exacerbated by the fact that people living in and near giraffe habitat are typically poor and compete with giraffes for resources like trees and shrubs (Marais et al., 2013 (Cameroon); Marais et al., 2013 (Swaziland)).

Expansive habitat is a prerequisite for healthy giraffe populations, given their relatively large home ranges—which average between 68 km² and 514 km²—and their seasonal migration patterns (Shorrocks, 2016). However, largely as a result of habitat loss and degradation, the giraffe's range has contracted significantly over the past century (Dagg, 1971; Fennessy, 2004; Skinner & Smithers, 1990). This has resulted in geographical isolation of local populations and some herds surviving at the edge of the species' preferred range (Fennessy, 2004).

4.2 Population size

In 2016, the IUCN Red List of Threatened Species updated its assessment of *Giraffa camelopardalis* to "Vulnerable," citing an ongoing population decline between 36% and 40% over the last 30 years or three generations (Muller et al., 2016). There are currently estimated to be roughly 97,500 giraffes in Africa now compared with the 1985 estimate of 150,000.

4.3 Population structure

Giraffes are social animals and non-territorial in nature (Van der Jeugd & Prins, 2000; VanderWaal et al., 2014). Their ranges vary in size depending upon available habitat and food resources (McQualter et al., 2015). Historically, large herds of 20-30 animals were commonly seen and, while herds of over 50 giraffes can occasionally still be seen today in open areas, smaller herds are most common (Muller et al., 2016). Bercovitch and Berry (2013) found that giraffe herds typically have five to six animals, but size varies depending upon resource availability.

4.4 Population trends

Historic estimates of giraffe population sizes show a precipitous population decline at the species level. The IUCN Species Survival Commission (SSC) Giraffe and Okapi Specialist Group and the Giraffe Conservation Foundation (GCF) estimate that giraffes numbered between 151,702 and 163,452 in the 1980s (Muller et al., 2016). East (1999) estimated that there were approximately 141,000 giraffes in the wild in the 1990s. The IUCN's most recent (2015) estimate places the giraffe population at 97,562 individuals (Muller et al., 2016, Table 1). And while the overall population is trending downward, the trends vary significantly at regional and subspecies levels.

4.5 Geographic trends

The historic distribution of *Giraffa camelopardalis* is thought to include much of the semi-arid savannah and savannah woodlands of Africa (Dagg, 1971; East, 1999). Giraffes today are found south of the Sahara and only maintain a fraction of their range due to human population expansion and increased aridity (Muller et al., 2016; Dagg, 1971). The west African subspecies in Niger has had a growing population in recent years but is still only estimated at roughly 400 animals (Marais et al., 2014; Fennessy et al., 2016). The Kordofan subspecies found primarily in central Africa has suffered a population decline of about 46 percent over the last three to four decades (Muller et al., 2016), current estimated number of mature individuals is 450 (Fennessy & Marais, 2018). The Nubian subspecies currently in Ethiopia and thought to occur in South Sudan has undergone an estimated a 97 percent decline over the past three and a half decades (Muller et al., 2016), estimated number of mature individuals is now 455, and the subspecies is regionally extinct in Eritrea and Sudan (Wube et al, 2018). The reticulated subspecies found in southern Ethiopia and northern Kenya underwent 56 percent decline over the last three decades (Muneza et al., 2018). The Rothschild's subspecies found in Uganda and at reintroduction sites in Kenya has increased to approximately 2,098 individuals (Fennessy et al., 2018). The Masai subspecies in southern Kenya and Tanzania has faced a 52 percent decline over the last 25 to 28 years (Muller et al., 2016). The Thornicroft's subspecies in Zambia has long had small remaining populations estimated between about 121 and 736, suggesting that a reasonable estimate would be 600 individuals (Bercovitch et al., 2018). The Angolan subspecies found in Namibia, Botswana and possibly Zimbabwe and Zambia (although these animals may belong to the South African subspecies) was estimated at 14,748 individuals (Marais et al. 2018). The South African subspecies found in South Africa, Mozambique, Zimbabwe, Angola, and Swaziland has increased from roughly 8,000 animals to 21,387 individuals over 40 years (Muller et al., 2016). The giraffe is regionally extinct in Eritrea, Guinea, Mauritania, Nigeria and Senegal, and possibly extinct in Mali (Muller et al., 2016). Giraffes are listed as one of the eight mammals on Mozambique's National Red List that are either extinct or in danger of extinction (MICOA, 2009).

5. Threats

The Giraffe and Okapi Specialist Group identified habitat loss, civil unrest, illegal hunting (including for bushmeat) and ecological changes as the main threats to the giraffe (Muller et al., 2016). In Southern Africa, the main perceived threats are illegal hunting and habitat loss caused by conversion of land for agriculture, human development, and cutting of trees for firewood and construction (see, for example, Marais et al., 2018). In Western Africa, the main threats are habitat loss due to increasing human populations and human-wildlife conflict (Fennessy, Marais, & Tutchings, 2018). In Eastern and Central Africa, the main threats are habitat loss through rapid conversion of land for farming and increasing human populations, drought, illegal hunting for meat and hide, and armed conflict throughout unstable regions (Muller et al., 2016; Fennessy & Marais, 2018; Wube et al., 2018). In addition, habitat loss due to aridity may be compounded by climate change in the future (Marais et al., 2018; Bercovitch et al., 2018).

Giraffe offtake is both legal and illegal and is done for meat, for sport, or for parts and products. Historically, giraffes were used for their hair, tails, medicinal and magical purposes (Espinoza et al., 2008; Muller, 2008; Khalil et al., 2016), but more recently have been increasingly hunted and poached for bushmeat (Okello et al., 2015; Marais et al., 2013; Beyers et al., 2013; Du Raan et al., 2016; Strauss et al., 2015; Fennessy & Marais, 2018; Fennessy, Marais, & Tutchings, 2018; Wube et al., 2018). Many range countries have adopted protections for giraffes but enforcement as well as civil unrest are concerns. Poaching for bushmeat, bones, tail hair, and other parts contributes to giraffe mortality and the species' decline (see section 6.4 below).

6. Utilization and trade

6.1 National utilization

Legal hunting of giraffes occurs in parts of southern Africa (Muller, et al. 2016), and there is some trade in live specimens between game ranches in southern Africa (ibid.).

Since ancient Egyptian times giraffe tails have been used by humans (Espinoza et al., 2008; Muller, 2008). Giraffe tails have many uses, serving as symbols of authority, arm bands, and fly swatters (ibid.). Likewise, giraffe hair is used to make bracelets, necklaces, and other jewelry (Muller, 2008). Giraffe tail hair is used in necklaces in Samburu, Kenya (Ocholla et al., 2016). Giraffe tails are a status symbol and used as fly swatters by Mondo chiefs in DRC (Marais et al., 2013). Giraffe hair crafts and jewelry were also found in tourist shops in Mozambique (Muller, 2008). Giraffe skins are used for marriage dowries in Southern Sudan. There is some evidence of an increase in local trade in reticulated giraffes (G. c. reticulata) (Muneza et al., 2018).

A 2016 questionnaire that surveyed giraffe experts documented giraffe products encountered in trade and potential trends of trade (Khalil et al., 2016). There were 90 respondents from 18 countries in Africa and one in Europe, with most respondents located in Kenya, South Africa, Namibia, Tanzania, and Zimbabwe (ibid.). According to the results, most survey responses referred to clothing and souvenir items made from giraffe parts. These items included jewelry, bracelets, skins, mounts, carved bone, tails, and purses (ibid.). Another major product category referenced by the respondents was food, including sausages, dried meat, and bushmeat (ibid.). The final category included items used for medicinal purposes such as aphrodisiacs, headache cures, and “magic potions” (ibid.). Rumors quoted in mainstream newspapers in Tanzania (Arusha Times 2004 and Tanzania Daily News in 2014 for example) about the ability of their marrow bones to heal from HIV/AIDS are putting further pressure on giraffes (Muller, 2008; Tanzania Daily News, 2014).

6.2 Legal trade

The giraffe is not currently listed on the CITES Appendices and therefore no CITES trade data exist. However, as the U.S. is the world’s largest importer of wildlife (Altherr et al., 2011; Pavlin et al., 2009), the U.S. does collect such data. The trade data from the U.S. can provide valuable insights into the international trade in giraffes and their products. An analysis of U.S. trade data (CBD et al., 2017) from the Law Enforcement Management Information System (LEMIS) trade database revealed that between 2006 and 2015 (the most recent decade for which complete data are available), 39,516 giraffe specimens (giraffes, dead or alive, and their parts and derivatives) were imported to the U.S. for all purposes, the equivalent of at least 3,751 individual giraffes (a conservative estimate). The most commonly imported items were bone carvings (21,402), bones (4,789), trophies (3,744), skin pieces (3,008), bone pieces (1,903), skins (855), and jewelry (825). Other giraffe specimens in trade include shoes (528), hair (501), small leather products (366), feet (339), large leather products (325), and horn (ossicone) carvings (201) (see Annex A, Table 1). For these analyses the “wildlife description” BOD (bodies), LIV (live), and TRO (trophies) were counted as equivalent to one individual giraffe, while skins were not counted as such due to the likelihood the skin from an individual animal may be traded in sections rather than kept intact.

Wild-sourced specimens accounted for 99.7% of specimens imported to the US from 2006-2015 (39,397 of 39,516).

About 95% of individual giraffes imported to the U.S. from 2006 to 2015 were for hunting trophy purposes (5,044 giraffe specimens, representing at least 3,563 individual giraffes including 3,561 trophies, 1 body, and 1 live animal; comparing the estimated 3,563 individual giraffes imported for hunting trophy purposes to the estimated 3,751 individual giraffes imported for all purposes) (see Annex A, Table 2). The top exporters of giraffe specimens for hunting trophy purposes were South Africa (3,065 or 60.8%), Zimbabwe (1,346 or 26.7%), and Namibia (575 or 11.4%). Together these three countries account for 98.9% of giraffe specimens imported to the U.S. for hunting trophy purposes. Since 2010 there has been a marked increase in the number of giraffe trophies imported to the U.S., peaking in 2015, when 457 trophies were imported. Since 2006, the U.S. has imported over 300 giraffe trophies per year, with the single exception of 2010 (when trophy imports totaled 276).

From 2006 to 2015, at least 33,321 giraffe specimens, the equivalent of at least 157 individual giraffes, were imported into the U.S. for commercial purposes. The vast majority of these specimens were bone carvings (20,885), bones (3,768), skin pieces (2,820), and bone pieces (1,857) (see Annex A Table 3).

Between November 30, 2016 and December 21, 2016, one researcher based in Washington, D.C., U.S.A. conducted an assessment of online sales of products made from giraffe parts in the U.S. (CBD et al., 2017). The online search was conducted in English and Russian and was intended to capture a sample of products available for purchase. A total of 1,224 items made from giraffe parts were discovered for sale online during the research period. However, it must be noted that many websites did not indicate the quantity of items in stock, which means that the total number of items covered by the search is likely much higher. The following are the types of items found available for sale: skeleton parts (skulls, neck vertebrae, upper leg bones, lower leg bones, and shoulder blades); bone products (carvings, blocks, cylinders, earrings, rounds, scales, thumb studs, pen blanks, pistol grips); knives (bone handles); cutlery set (bone handles); hair products (bracelets, necklaces); taxidermy (bust, leg mount); skin products (hides, handbags, rugs, handgun cases, pillows, boots); and products such as tables and lamps made of other body parts.

The most common type of objects offered for sale were “scales” (a piece of raw bone in the shape of a rectangle that is carved into knife handles) or giraffe bones that may be used to make knife handles, with 346 such items found. The second most common were raw bones (neck, skull, legs, etc.), with 159 such items found. The third most common objects offered for sale were knives featuring giraffe bone handles, of which 132 were found.

From 2016 to 2018, volunteers conducted original research on the giraffe parts trade online, to include in this proposal. On July 30, 2018, one researcher based in Brussels, Belgium carried out a search on 5 websites in French for giraffe parts and products for sale in Belgium and found a total of 10 giraffe products being sold by sellers based in Belgium, including two knives with giraffe bone handles, three giraffe taxidermy bust (trophies), one giraffe rug, and three full-body giraffe taxidermy (see Table 1 in Annex B for average prices and example links).

On June 13 and 14, 2018, one researcher based in Paris, France, carried out a search on 31 websites in French and found a total of 58 giraffe products, including 48 knives with giraffe bone handles, one giraffe bone, one pen with a giraffe bone part, one set of four giraffe feet taxidermy, one table featuring four giraffe legs, two skulls, two revolvers with giraffe bone grips, one skin and one pair of bone scales (see Table 1 in Annex B for average prices and example links).

On July 7, 2018, one researcher based in Munich, Germany carried out a search on 17 websites in German and found a total of 51 giraffe products, including seven raw giraffe bones, seven full giraffe skins, four giraffe skin pieces, two giraffe taxidermy busts, one giraffe tail, one giraffe hoof, two giraffe taxidermy heads, four giraffe skulls, three pairs of giraffe bone scales, six knives with giraffe bone handles, one table featuring four giraffe legs, 10 giraffe bone carvings, and one pen with a giraffe bone part (see Table 1 below for average prices and example links).

On July 30, 2018, one researcher based in Brussels, Belgium carried out a search on one website in Greek for giraffe parts and products for sale in Greece and found a total of one giraffe product being sold by sellers based in Greece; a knife with a giraffe bone handle (see Table 1 in Annex B for average prices and example link).

On July 30, 2018, one researcher based in Brussels, Belgium carried out a search on 10 websites in Italian and found a total of 18 giraffe products being sold by sellers based in Italy, including seven knives with giraffe bone handles, one giraffe taxidermy bust (trophies), two sets of giraffe bone scales, two chef’s knives with giraffe bone handles, and one large hunting knife with a giraffe bone handle (see Table 1 in Annex B for average prices and example links).

On July 11, 2018, one researcher based in Washington, D.C. U.S.A. carried out a search on 10 websites in Spanish and found a total of 171 giraffe products being sold by sellers based in Spain, including seven knives with giraffe bone handles, 163 sets of giraffe bone scales, and one full giraffe skin (see Table 1 in Annex B for average prices and example links).

On July 23, 2018, one researcher based in Washington, D.C. U.S.A. carried out a search on 15 websites in English and found 21 giraffe products being sold by sellers based in the United Kingdom, including 11 knives with giraffe bone handles, four chef’s knives with giraffe bone handles, three giraffe

taxidermy busts (trophies), one pair of giraffe bone scales, one full giraffe hide, and one giraffe hair bracelet (see Table 1 in Annex B for average prices and example links).

6.3 Parts and derivatives in trade

The analysis of U.S. imports of giraffes and their products mentioned in 6.2 above indicates that the most commonly imported items from range States were bone carvings (21,402), bones (4,789), trophies (3,744), skin pieces (3,008), bone pieces (1,903), skins (855), and jewelry (825). The top countries exporting wild giraffes and their parts to the U.S. were South Africa (31,245 specimens representing at least 2,207 giraffes), Zimbabwe (5,249 specimens representing at least 971 giraffes), Tanzania (692 specimens representing at least one giraffe), and Namibia (685 specimens representing at least 521 giraffes). The export of giraffe products from Tanzania is particularly of concern considering the drastic decline in Masai giraffe populations in recent years (Muller et al., 2016). Similarly, 50 bones, one hair product and one tail imported into the U.S. originated in Somalia, which are most likely derived from reticulated giraffe (G. c. reticulata), which were recently assessed as “Endangered” by the IUCN (Muneza et al., 2018). It must also be emphasized that the export data do not identify the source country of giraffe parts in trade and given widespread giraffe poaching, it is possible that parts from poached giraffes are entering “legal” trade.

In the E.U., the most numerous of the products available online found in the research described in 6.2 above were giraffe bone scales (170), knives with giraffe bone handles (82), bone carvings (10), skins (10), giraffe taxidermy busts (9), skulls (6), chef’s knives with giraffe bone handles (6), and skin pieces (4) (see Table 1 in Annex B).

6.4 Illegal trade

As part of the bushmeat trade, giraffes are snared or otherwise illegally hunted for their meat, bones, hides, and other parts (Fennessy & Marais, 2018; Wube et al., 2018; Fennessy, Marais, & Tutchings, 2018; Muneza et al., 2018; Fennessy et al., 2018). Giraffes are most frequently caught in head/neck snares (Strauss et al., 2015), but occasionally leg snares are also used. While giraffes can break free from snares, many die once snared (Strauss et al., 2015). Adult giraffes are most frequently targeted and males are most frequently snared (Strauss et al., 2015; Suraud et al., 2012). The level of illegal giraffe poaching is difficult to detect because carcasses may not remain in the bush due to the high demand for giraffe bones and hides (Strauss et al., 2015). Giraffe meat is consumed locally but is also part of cross border trade in bushmeat (Okello et al., 2015) and much larger markets may exist for giraffe parts than are currently documented (Strauss et al., 2015), and giraffe accounted for 12% of the illegal bushmeat production among the top 20% of hunters who reported in Botswana’s Okavango Delta (Rogan et al., 2017). Poaching of Masai giraffes (G. c. tippelskirchi) is common in protected areas in Tanzania (Kiffner et al., 2015), and poaching may have caused certain populations in the country to be designated as population sinks (Lee & Bolger, 2017).

Today, giraffes are still poached for their tails and hair. In particular, Masai giraffes, Nubian giraffes, reticulated giraffes, Rothschild’s giraffes, and South African giraffes are all poached for their tails or tail hair for use in making jewelry (Marais et al., 2013; Marais et al., 2016; Muller, 2008; Okello et al., 2015; Wube, 2013; Fennessy & Marais, 2018). Organized poaching and trafficking by armed groups is a severe threat to giraffes in the DRC (Ondoua et al., 2017).

6.5 Actual or potential trade impacts

At the national level, poaching for bushmeat is identified as one of the factors contributing to the recent decline of giraffe populations (Okello et al., 2015). On the larger scale, as no CITES or other comprehensive international trade data exist, the global scale of the international trade in giraffes and their products is unknown. However, from the U.S. trade described in section 6.2, it is evident that a substantial trade in giraffe trophies, skins, bones and other products occurs between several giraffe range States and the U.S. It is likely that an equal if not greater volume of trade in giraffes and their products occurs between range States and the European Union based on products currently offered for sale described in section 6.2. The EU is arguably the second largest market for wildlife trade (Engler & Parry-Jones, 2007), which may place further pressure on this already declining species.

It is important to point out that the data recorded in the LEMIS data analyzed does not include information on subspecies or country of origin, leaving the possibility that exports from one range State may include specimens of subspecies from other range States and subspecies that do not occur in the

exporting State. It is well-established that wildlife parts originating in one African country may be exported from another. For example, Wasser et al. (2007) demonstrated, through DNA analysis, that an illegal shipment of ivory found in a container shipped from South Africa, that was confiscated in Singapore, contained ivory that originated in a narrow east-to-west band in Southern Africa, centered on Zambia. A related investigation revealed that the ivory had been carried from Zambia to Malawi in small lots. Further investigations revealed that ivory was trucked from Malawi to Mozambique, where it was loaded on a ship to South Africa, after which it was loaded on another ship bound for Singapore (Wasser et al., 2009). Furthermore, such shipments included "hanko" (carved ivory cylinders used for Japanese signature seals) that apparently had been manufactured in Malawi. Wasser et al.'s research has demonstrated that parts of animals poached in one country, can be processed in another, and shipped out of a third. Similarly, the parts of poached giraffes may be transported along established wildlife trade routes in Africa before being exported from the continent.

In addition, because the species is not listed on the CITES Appendices, there is uncertainty as to whether the specimens in trade were legally acquired or were derived from poached giraffes, a rampant problem and an increasing threat to the species as a whole (see section 6.4 below). In addition, there is no information available as to whether the specimens were acquired in a way that is not detrimental to the continuing survival of the species. Finally, it must be noted that the most common type of giraffe specimen in trade is bone carvings, which cannot be distinguished by non-experts at the subspecies level.

7. Legal instruments

7.1 National

Many giraffe range countries have laws prohibiting the hunting of giraffes, including Angola (Marais et al., 2013), Cameroon (Marais et al., 2013), Central African Republic (Marais et al., 2014), Chad (Marais et al., 2014), DRC (Marais et al., 2013), Kenya (Marais et al., 2013), Mozambique (Marais et al., 2013), Niger (Marais et al., 2014), Rwanda (Marais et al., 2012), South Sudan (Marais et al., 2012), Uganda (Marais et al., 2016), and Zambia (Du Raan et al., 2015). However, most—if not all—of these countries would benefit from capacity building to increase enforcement. Under current regimes, illegal hunting of giraffe for personal consumption, the bushmeat trade, and the legal and illegal international trade in wildlife parts (e.g., tail hair, giraffe bone) is an increasing concern.

7.2 International

The giraffe was recently listed on Appendix II of the Convention on Migratory Species (CMS). Appendix II "covers migratory species that have an unfavorable conservation status and that require international agreements for their conservation and management, as well as those that have a conservation status which would significantly benefit from the international cooperation that could be achieved by an international agreement" (CMS, 2018). The proponents of the CMS listing expressed their intention to "establish an informal but dynamic initiative to develop and support collective and collaborative priority actions, for threatened populations or subspecies, and those of regional transboundary populations, to assist each range State to address the individual challenges faced by them (CMS, 2017). In addition, the African Convention on the Conservation of Nature and Natural Resources, entered into force in 1969, requires contracting states to "adopt measures to ensure conservation, utilization, and development of soil, water, flora, and faunal resources in accordance with scientific principles and with due regard to the best interests of the people" (AU, 1968). The Convention lists giraffes as a "Class B" species which, according to the Convention, "shall be totally protected, but may be hunted, killed, captured or collected under special authorization granted by the competent authority" (AU, 1968). While 31 countries have ratified the Convention, many with giraffe populations have not, including Angola, Chad, Ethiopia, Namibia, Somalia, South Africa, South Sudan, and Zimbabwe (AU, 2016a). Moreover, the Convention does not contain any enforcement mechanisms to address noncompliance and does not designate the role and frequency of meetings to update the agreement. A revised Convention was developed in 2003 that would, among other changes, establish a secretariat to improve the Convention's executive and implementation functions (AU, 2003) and update rules pertaining to protected species such as the giraffe (ibid.). However, it has not yet been adopted (AU, 2016b). Giraffes are not protected under any other international conventions, and international trade in giraffes is not regulated by any such legal instrument.

8. Species management

8.1 Management measures

Niger was the first country to develop a National Giraffe Conservation Strategy, and this in conjunction with community awareness programs and strict law enforcement has facilitated the recovery of the G. c. peralta population from about 49 individuals in the 1990s to about 400 in 2015 (Suraud et al., 2012; Muller et al., 2016). Subsequently, Kenya and Uganda have both developed a National Giraffe Conservation Strategy which seeks to identify and implement a number of conservation interventions to conserve giraffe (KWS, 2010; UWA 2017).

8.2 Population monitoring

Although historically overlooked in terms of research and conservation, considerable progress has been made in assessing the populations of giraffe in range States by the Giraffe and Okapi Specialist Group (Muller et al., 2016).

8.3 Control measures

8.3.1 International

There are no measures in place to control the movement of giraffe specimens across international borders.

8.3.2 Domestic

See Section 8.1.

8.4 Captive breeding and artificial propagation

Giraffes have been bred in zoos, but there is no evidence of commercial breeding operations.

8.5 Habitat conservation

Throughout their range giraffes benefit from various protected areas with various subspecies being found predominately in national parks and other protected areas.

G. c. antiquorum is presently found in the northern savannah of the CAR and across the border into southern Chad, primarily in Zakouma National Park (Marais et al., 2012; Marais et al., 2014; Fennessy & Marais, 2018). This subspecies is also found in the northern extremes of Cameroon, mostly in Waza National Park (Marais et al., 2013; Fennessy & Marais, 2018). A small, isolated population also resides in DRC's Garamba National Park and adjacent hunting reserves bordering South Sudan (Marais et al., 2013; Fennessy & Marais, 2018).

In Ethiopia, Gambella National Park is home to the country's primary remaining population of *G. c. camelopardalis*, which consists of approximately 90 individuals as of a 2009 aerial count (Marais et al., 2013). Several small populations of 20 individuals or fewer are thought to remain in Omo National Park and Tama Wildlife Reserve, but controversy remains about whether they are still there and what subspecies they are (ibid.; Renaud, 2007). In South Sudan, the subspecies occurs in Boma National Park, Southern National Park and Bandingilo Game Reserve (Wube et al., 2018).

Currently, only one naturally-occurring population of *G. c. rothschildi* remains in Murchison Falls National Park in Uganda, while other, smaller populations exist in Kidepo Valley National Park and Lake Mburo National Park (Marais et al., 2016; Fennessy et al., 2018). Other populations of the subspecies have been reintroduced into several sites in Kenya that are presumed to be in their natural range, including Ruma National Park, Lake Nakuru National Park, Mt. Elgon National Park, and several game farms and reserves (Marais et al., 2013).

It is estimated that fewer than 8,000 individuals of *G. c. tippelskirchi* remain, primarily in the Masai Mara Ecosystem, Tsavo and Chyulu National Parks and surrounds, and the Amboseli Ecosystem (Marais et al., 2013). In Rwanda, six individuals of *G. c. tippelskirchi* were introduced into Akagera National Park

in 1986, where they have expanded to about 100 (Marais et al., 2012). Strauss et al. (2015) found that about 3,250 *G. c. tippelskirchi* remain in Serengeti National Park, down from nearly 29,000 in the 1990s.

The range of *G. c. peralta* is located within the transition zone of the Biosphere Reserve of W National Park, and there are plans to translocate some individuals into their former range to the east in Gadabedji Game Reserve in late 2018 (Fennessy, Marais, & Tutchings, 2018).

G. c. thornicrofti is entirely isolated to the Luangwa River Valley in northeastern Zambia, which includes South Luangwa National Park and the surrounding Lupande Game Management Area (Du Raan et al., 2015; Fennessy et al., 2013; Bercovitch et al., 2018).

G. c. angolensis occurs in northern Namibia, mostly in Etosha National Park and surrounding areas (Du Raan et al., 2016; Marais et al., 2018). In Botswana, the subspecies currently occupies the expansive Central Kalahari Game Reserve (Bock et al., 2014). In addition, the subspecies occurs in northern Botswana (the Okavango Delta, Chobe National Park, and other protected lands), southern Botswana (Southern and Kweneng Districts), northeastern Namibia (Bwabwata National Park), western Zimbabwe, and southern Zambia (Sioma Ngwezi National Park), although a recent genetic study suggests they may actually be *G. c. giraffa* (Bock et al., 2014). In Zambia, there is a small population of *G. c. angolensis* in Sioma Ngwezi National Park (Du Raan et al., 2015; East, 1999), and in Zimbabwe, the subspecies occurs in Hwange National Park and surrounding areas on the western edge of the country (Bock et al., 2014; Crosmary et al., 2015).

G. c. giraffa occurs in northeastern South Africa (Kruger National Park). In Angola, individuals of the subspecies were introduced in Kissama National Park (Marais et al., 2013). In Swaziland, *G. c. giraffa* occur in government-owned protected areas and private establishments (Marais et al., 2013). *G. c. giraffa* were translocated from South Africa to Mozambique's Limpopo National Park and Maputo Special Reserve, and the subspecies occurs in southeastern Zimbabwe, mostly in Gonarezhou National Park.

8.6 Safeguards

Not applicable.

9. Information on similar species

There are no similar species.

10. Consultations

On 30 October 2018, Chad informed range States that it intended to submit this proposal, provided the proposal in French and English, and requested comments by 30 November 2018. Comments were received from Niger, Kenya, Senegal, Mali, Cameroon, as well as the EU, and these were addressed in the proposal. As part of consultations, Chad convened a meeting in Ndjamena, Chad with some of the range States including the co-proponents on 26 November to seek additional comments. These comments have been incorporated into the proposal.

11. Additional remarks

None.

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Annex A: International Trade Data from LEMIS Database

Table 1. Total U.S. Giraffe Imports, 2006-2015, all sources and all purposes.

Wildlife Description	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**TOTAL**
Bone Carvings	2,933	4,194	1,641	2,735	1,736	233	790	1,418	1,495	4,227	**21,402**
Bodies	0	0	1	1	0	0	0	1	0	0	**3**
Bones	167	65	487	345	77	1403	350	434	775	686	**4,789**
Bone Pieces	1,691	2	15	9	10	2	37	7	76	54	**1,903**
Carapaces	38	0	0	0	0	0	0	1	0	0	**39**
Ears	0	0	0	0	0	0	0	0	1	0	**1**
Eggshells	0	2	0	0	0	0	0	0	0	0	**2**
Feet	18	9	22	37	45	29	69	58	23	29	**339**
Genitalia	0	0	2	1	0	0	0	0	2	1	**6**
Hair	400	2	5	1	0	1	0	81	0	11	**501**
Hair Products	10	0	0	2	2	0	1	0	3	100	**118**
Horn Carvings	0	0	0	0	0	3	0	63	48	87	**201**
Horns	0	0	0	0	0	2	3	0	0	0	**5**
Jewelry	53	66	670	0	10	0	5	9	5	7	**825**
Leather Products Large	2	3	6	18	32	11	11	58	76	108	**325**
Leather Products Small	5	4	3	1	1	3	42	147	58	102	**366**
Legs	0	0	0	0	0	0	0	1	0	0	**1**
Live	0	0	0	0	3	0	0	1	0	0	**4**
Plates	0	0	0	0	0	0	0	3	2	3	**8**
Rug	15	6	15	5	6	0	2	8	1	5	**63**
Shell Product	0	0	0	0	0	0	0	0	50	0	**50**
Shoes	0	0	0	0	0	0	0	2	8	518	**528**
Skeletons	0	0	0	0	0	0	0	0	0	64	**64**
Skins	16	22	115	18	307	9	18	22	163	165	**855**
Skin Pieces	50	310	85	133	34	245	62	704	465	920	**3,008**
Skulls	18	2	14	12	32	29	6	6	4	27	**150**

Specimens	1	0	0	19	0	0	50	6	0	25	**101**
Tails	1	0	1	15	7	6	18	7	5	5	**65**
Teeth	0	0	0	0	1	0	0	0	0	2	**3**
Trim	0	2	3	4	0	9	0	1	0	2	**21**
Trophies	425	372	339	405	280	328	342	408	386	459	**3,744**
Unspecified	10	0	0	2	1	0	0	1	2	0	**16**
Wood Products	0	0	0	6	0	1	0	3	0	0	**10**
TOTAL	**5,853**	**5,061**	**3,424**	**3,769**	**2,584**	**2,314**	**1,806**	**3,450**	**3,648**	**7,607**	**39,516**

Source: LEMIS data obtained from United States Fish and Wildlife Service through FOIA requests between 2006 and 2015, filtered for imports of Giraffa camelopardalis.

Table 2. Total U.S. Giraffe Imports, 2006-2015, all sources, hunting trophy purposes.

Wildlife Description	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**TOTAL**
Bone Carvings	12	41	16	9	9	3	14	3	29	38	**174**
Bodies	0	0	1	0	0	0	0	0	0	0	**1**
Bones	25	11	7	149	22	10	8	38	505	38	**813**
Bone Pieces	1	0	5	0	0	2	0	1	3	0	**12**
Carapaces	0	0	0	0	0	0	0	0	0	1	**1**
Ears	0	0	0	0	0	0	0	0	1	0	**1**
Feet	18	8	0	0	12	1	6	13	12	29	**99**
Genitalia	0	0	2	1	0	0	0	0	0	2	**5**
Hair	4	0	0	0	0	0	0	0	2	0	**6**
Hair Products	4	0	0	0	0	0	0	0	2	0	**6**
Jewelry	0	0	0	0	0	0	0	0	2	7	**9**
Leather Products Large	2	3	0	6	23	1	1	7	8	28	**79**
Leather Products Small	0	0	0	0	0	0	0	0	0	17	**17**
Legs	0	0	0	0	0	0	0	1	0	0	**1**
Live	0	0	0	0	0	0	0	1	0	0	**1**
Plates	0	0	0	0	0	0	0	1	0	1	**2**
Rug	0	1	0	1	0	0	2	0	1	2	**7**
Skins	6	9	24	3	1	5	5	10	21	31	**115**
Skin Pieces	11	14	8	4	1	3	1	5	1	36	**84**
Skulls	5	2	0	1	3	3	3	2	2	9	**30**
Tails	0	0	0	0	0	3	0	0	1	5	**9**
Trim	0	2	0	0	0	4	0	0	0	1	**7**
Trophies	298	369	339	402	276	318	318	405	379	457	**3,561**
Unspecified	0	0	0	0	0	0	0	0	2	0	**2**
Wood Products	0	0	0	2	0	0	0	0	0	0	**2**
TOTAL	386	460	402	578	347	353	358	487	971	702	**5,044**

Source: LEMIS data obtained from United States Fish and Wildlife Service through FOIA requests between 2006 and 2015, filtered for imports of Giraffa camelopardalis *for hunting trophy purposes.*

Table 3. Total U.S. Giraffe Imports, 2006-2015, all sources, commercial purposes.

Wildlife Description	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**TOTAL**
Bone Carvings	2,908	4,150	1,611	2,707	1,699	189	734	1,340	1,418	4,129	**20,885**
Bones	142	54	474	171	38	1,359	323	348	223	636	**3,768**

Wildlife Description	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**TOTAL**
Bone Pieces	1,678	0	0	5	9	0	35	3	73	54	**1,857**
Carapaces	0	0	35	0	0	0	0	0	0	0	**35**
Feet	0	0	12	29	25	5	40	6	0	0	**117**
Hair	400	2	4	0	0	0	0	81	0	0	**487**
Hair Products	0	0	0	0	0	0	0	0	0	100	**100**
Horn Carvings	0	0	0	0	0	3	0	63	47	87	**200**
Horns	0	0	0	0	0	2	3	0	0	0	**5**
Jewelry	50	46	670	0	0	0	0	0	0	0	**766**
Leather Products Large	0	0	0	0	0	0	4	21	37	76	**138**
Leather Products Small	4	4	0	0	0	0	41	137	44	84	**314**
Live	0	0	0	0	3	0	0	0	0	0	**3**
Rug	15	5	11	2	5	0	0	0	0	2	**40**
Shell Product	0	0	0	0	0	0	0	0	50	0	**50**
Shoes	0	0	0	0	0	0	0	0	8	518	**526**
Skeletons	0	0	0	0	0	0	0	0	0	64	**64**
Skins	7	12	85	13	304	2	8	9	142	133	**715**
Skin Pieces	39	296	69	91	21	241	58	678	456	871	**2,820**
Skulls	10	0	12	11	29	26	0	3	1	17	**109**
Specimens	0	0	0	0	0	0	50	0	0	0	**50**
Tails	0	0	0	6	0	0	0	0	0	0	**6**
Teeth	0	0	0	0	1	0	0	0	0	0	**1**
Trim	0	0	0	0	0	0	0	1	0	0	**1**
Trophies	125	0	0	2	1	3	17	2	3	1	**154**
Unspecified	10	0	0	0	0	0	0	0	0	0	**10**
TOTAL	5,388	4,569	2,983	3,037	2,135	1,830	1,313	2,692	2,502	6,772	**33,221**

Source: LEMIS data obtained from United States Fish and Wildlife Service through FOIA requests between 2006 and 2015, filtered for imports of Giraffa camelopardalis *for commercial purposes.*

Annex B: E.U. Online Trade Research

Table 1. Giraffe Parts and Products Available for Sale Online in the E.U.

Seller Country	Product Name	Number of Products Found	Avg. Price	Link
Belgium	Giraffe Taxidermy Bust	3	Not listed	https://goo.gl/3U2or2
	Full-Body Giraffe Taxidermy	3	Not listed	https://goo.gl/kCh7BS
	Knife with Giraffe Bone Handle	2	€450	https://goo.gl/Pimemv
	Giraffe Rug	1	Not listed	https://goo.gl/KwxPXe
France	Giraffe Bone	1	€248	https://goo.gl/4THK5M
	Giraffe Skull	2	€1500	https://goo.gl/ww9WRL
	Giraffe Bone Scales	1	€45	https://goo.gl/8SyVUh
	Giraffe Feet (set of four)	1	€200	https://goo.gl/zpFFwY
	Table with Giraffe Legs	1	€1650	https://goo.gl/YNy66R
	Giraffe Skin	1	€850	https://goo.gl/UY4M9H
	Pen with Giraffe Bone	1	€228	https://goo.gl/BfqE8D
	Antique Gun with Giraffe Bone Grip	2	€6500	https://goo.gl/dz3utS
	Knife with Giraffe Bone Handle	48	€250	https://goo.gl/CNt9RW
Germany	Giraffe Bones	7	€100	https://goo.gl/JQhN9i
	Giraffe Skull	4	€500	https://goo.gl/ubbzim
	Giraffe Skin	7	€2500	https://goo.gl/UZrvHB
	Giraffe Skin Pieces	4	€170	https://goo.gl/nLeCq7
	Giraffe Taxidermy Bust	2	€4000	https://goo.gl/Sf48Aq
	Giraffe Taxidermy Head	2	€2900	https://goo.gl/B14kV1
	Giraffe Tail	1	€175	https://goo.gl/Zz3Rjc
	Giraffe Hoof	1	€85	https://goo.gl/SRnKNy
	Giraffe Bone Scales	3	€45	https://goo.gl/E4AXFW
	Giraffe Bone Carving	10	€400	https://goo.gl/KSWhpe
	Knife with Giraffe Bone Handles	6	€500	https://goo.gl/ehWY2f
	Table with Giraffe Legs	1	€1350	https://goo.gl/fbJL18
Greece	Knife with Giraffe Bone Handle	1	€500	https://goo.gl/cVTXTA

Seller Country	Product Name	Number of Products Found	Avg. Price	Link
Italy	Knife with Giraffe Bone Handle	7	€400	https://goo.gl/dBt1qv
	Chef's Knife with Giraffe Bone Handle	2	€80	https://goo.gl/Pwe7eg
	Large Hunting Knife with Giraffe Bone Handle	1	€1,950	https://goo.gl/2BxX86
	Giraffe Bone Scales	2	€45	https://goo.gl/gSUp1h
	Giraffe Taxidermy Bust	1	Not Listed	https://goo.gl/RuC6er
Spain	Knife with Giraffe Bone Handle	7	€500	https://goo.gl/8TKFSn
	Giraffe Bone Scales	163	€50	https://goo.gl/4NdEmZ
	Giraffe Skin	1	€390	https://goo.gl/RTtLva
United Kingdom	Knife with Giraffe Bone Handle	11	£50	https://goo.gl/sc4HS1
	Chef's Knife with Giraffe Bone Handle	4	£500	https://goo.gl/4fCQuk
	Giraffe Skin	1	£500	https://goo.gl/CugAqj
	Giraffe Taxidermy Bust	3	£8600	https://goo.gl/vz2epd
	Giraffe Hair Bracelet	1	£390	https://goo.gl/CEYvGc
	Giraffe Bone Scales	1	£76	https://goo.gl/cG2GAc
GRAND TOTAL:		321		