



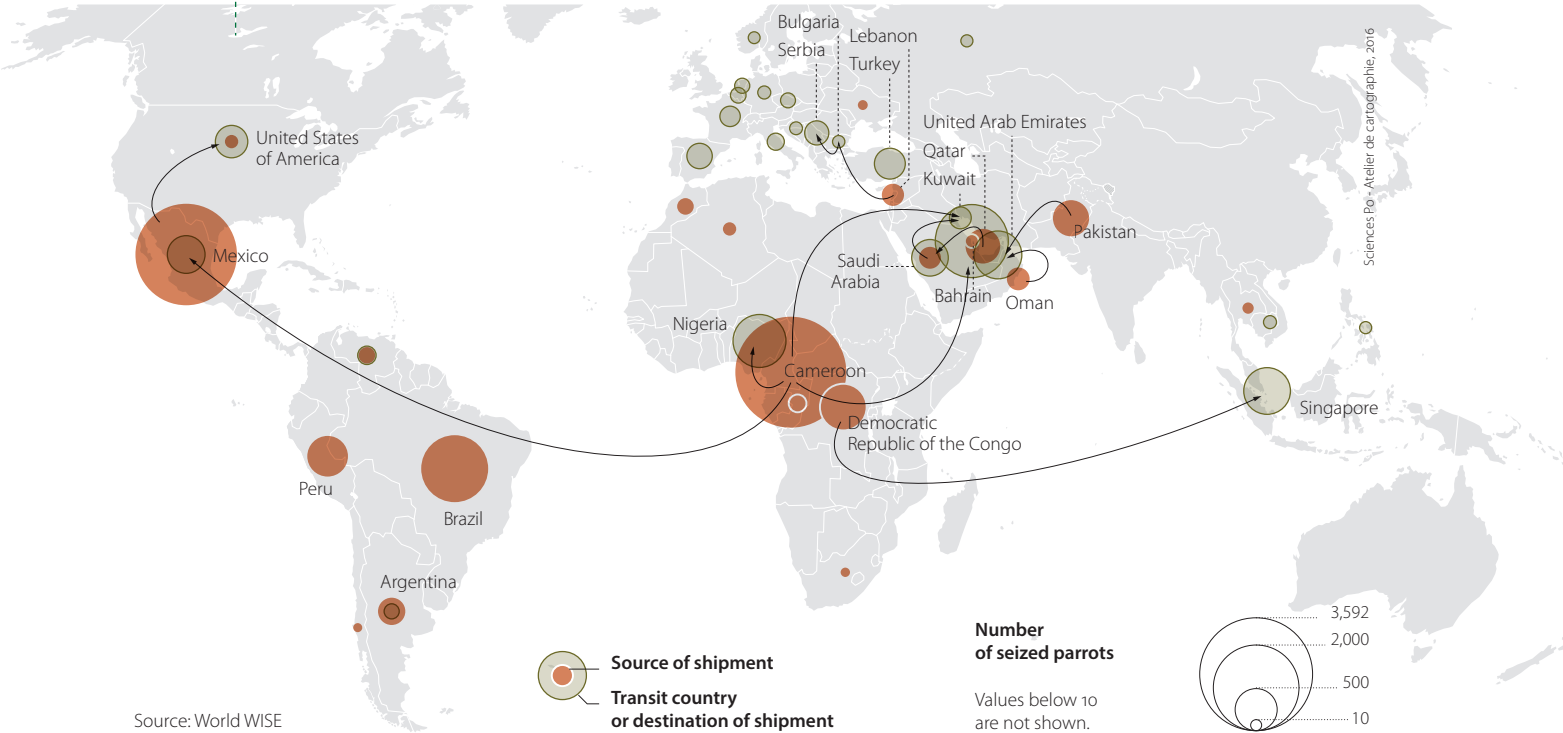
# PETS, ZOOS, AND BREEDING

## Case study: Live parrots

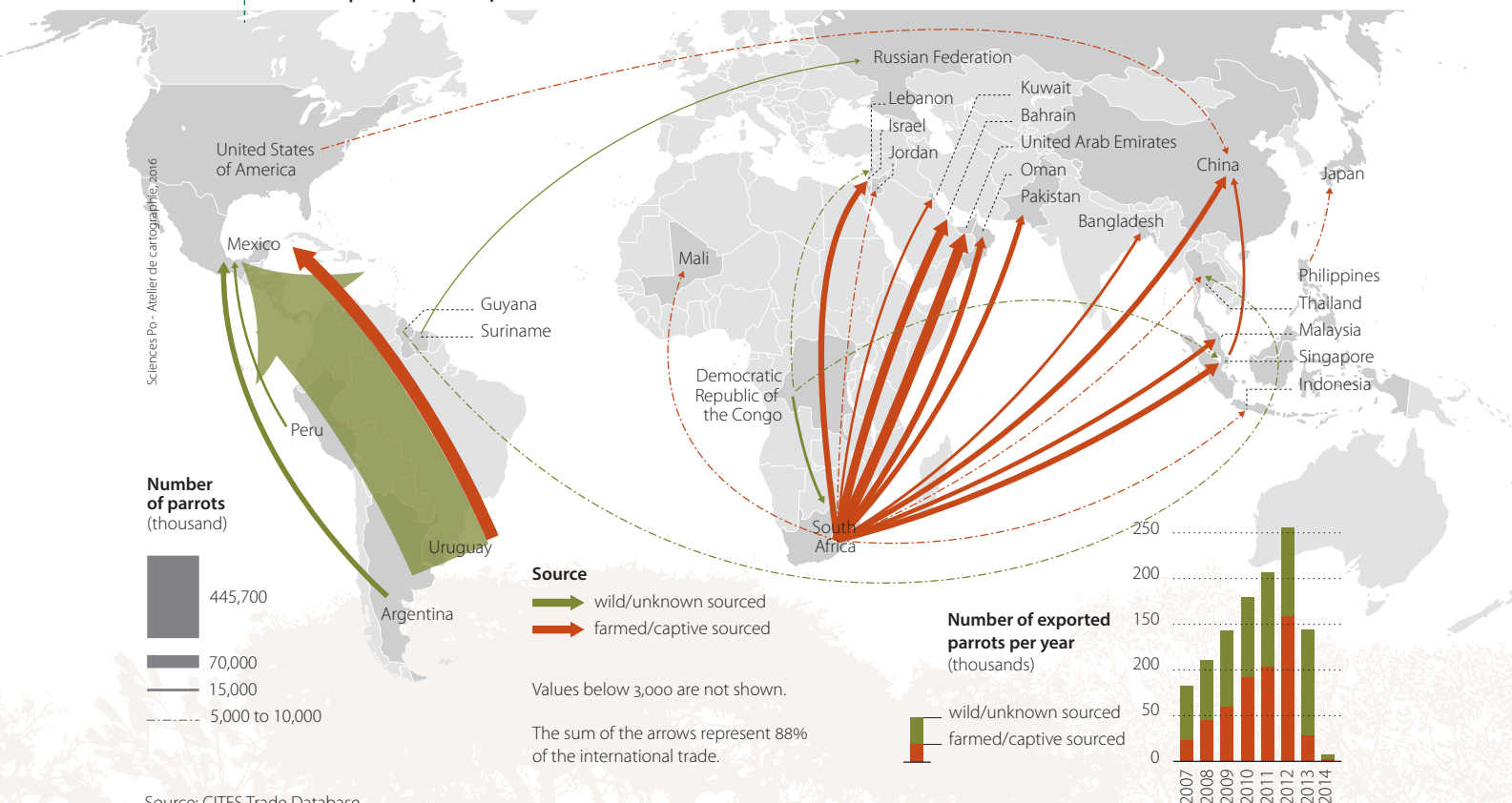
### THE TRADE IN LIVE ANIMALS

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**Map 1** Main flows of parrot seizures, 2007-2014 (New world and Afro-tropical parrots)



**Map 2** Main flows of legal trade in parrots based on CITES permits, 2007-2014 (New world and Afro-tropical parrots)



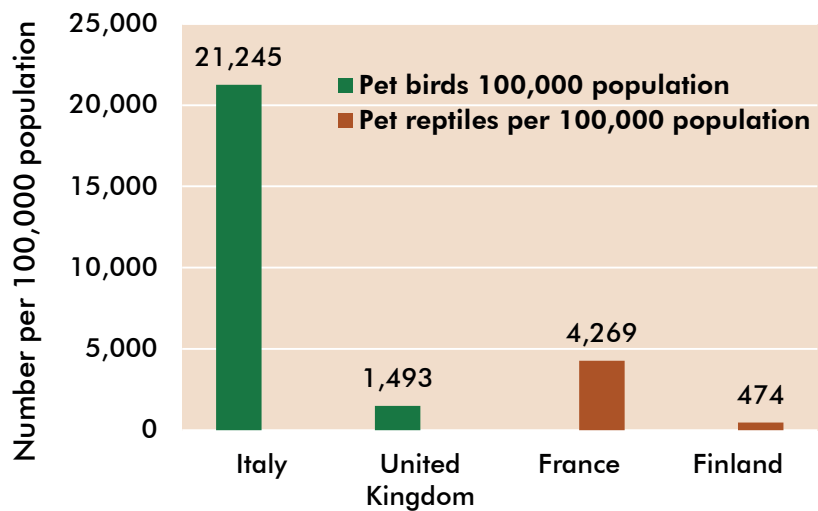
Note: The boundaries shown on this maps do not imply official endorsement or acceptance by the United Nations. Dashed lines represent undetermined boundaries. The dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of Jammu and Kashmir has not yet been agreed upon by the parties. A dispute exists between the Governments of Argentina and the United Kingdom of Great Britain and Northern Ireland concerning sovereignty over the Falkland Islands (Malvinas). The final boundary between the Republic of the Sudan and the Republic of South Sudan has not yet been determined.



While a small number are trafficked for meat or medicinal purposes, most live animals detected are destined to become showpieces in some personal or public collection. There are thus two distinct, but related, aspects to the live animal trade: the pet trade and the zoo trade.

The global pet trade is a large and complex industry. In richer countries like the United States and the United Kingdom, about half of households own some kind of pet,<sup>1</sup> fostering a multi-billion dollar industry dedicated to their care and feeding. In Western countries, cats and dogs predominate, but pet preferences are strongly influenced by culture. Within Europe, for example, Italian

**Fig. 1** Pet birds and reptiles per 100,000 population in selected European countries, 2012



Source: The European Pet Food Industry Federation (FEDIAF)<sup>2</sup>



## Great apes

Great apes are encountering growing range pressure and, along with other primates, are frequently the object of hunting.<sup>3</sup> The regular detection of ape meat and parts in local markets, as well as, to a lesser degree, international trade, highlights the fact that poaching remains a threat, more acute in some areas than others. The sale and exploitation of juvenile live great apes in some parts of Africa is a visible problem, and the steady admission of orphaned juveniles to rehabilitation centres is being tracked by the Great Apes Survival Partnership (GRASP). It appears that many of the juveniles are orphaned when their parents are poached, rather than being the object of the hunt themselves.

Although it has been alleged that there exists a large ongoing international trade in great apes for the pet, animal park, and zoo trade,<sup>4</sup> this is not demonstrated in the seizure data. More information is needed on the threats to great ape populations, including that posed by hunting, and research is currently underway.<sup>5</sup>

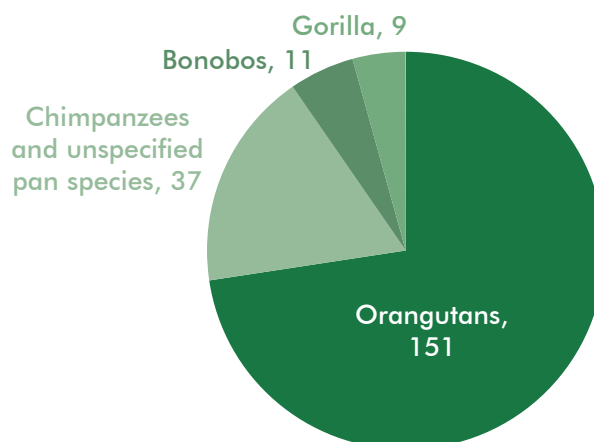
The most prominent example of illegal international trade involved the export of a large number of apes from Guinea between 2009 and 2011, using fraudulent CITES export permits. These permits alleged the apes were captive bred in

Guinea, although Guinea has no known captive breeding facilities.<sup>6</sup> The head of the CITES Management Authority of Guinea at the time of these exports was removed from office, but in August 2015, he was arrested for his suspected role in corrupt and fraudulent actions in the issuance of CITES export permits.<sup>7</sup> In another case in 2002, four gorillas were exported as captive bred from Nigeria to a zoo in Malaysia. Investigations showed that the Nigerian zoo in question had no mating pair, and that the gorillas were wild sourced.<sup>8</sup>

World WISE includes records of 208 live apes seized in 17 years. Almost a quarter of these come from the mass return

of 48 orangutans from Thailand to Indonesia in 2006, after apparently being smuggled into the country. They were freed from a private zoo called Safari World, where they had been trained to box for public entertainment. Many of the remainder are domestic seizures in range States, with no indication of international trade. If there is a transcontinental trade in wild sourced live great apes, it is probably best assessed in destination countries, rather than relying on the seizure record. For example, given their limited numbers, it would be possible to catalogue the great apes offered for public display, and query the origin of these animals.

## Live great apes seized, 1999-2015



Source: GRASP and World WISE

households are about 14 times as likely as British households to host a pet bird, while French households are almost 10 times more likely to host a pet reptile than Finnish ones (Fig. 1).

In range countries, the capture and sale of wild-caught pets can be a way for rural communities to make money and for urban communities to express a link to the natural heritage of their countries. Display of this wildlife can also draw tourists – exotic birds or even primates may be strategically positioned in front of restaurants, for example, or wildlife may be shown for a fee as a roadside attraction

International trade in exotic species has also become big business. Most of this involves relatively common species, but dedicated collectors may pay thousands of dollars for protected specimens, captive bred or supplied from the wild. Much of this trade involves birds, reptiles, and fish, populations that may prove difficult to monitor. The trade of tropical fish for aquaria and freshwater turtles and tortoises for terraria involves millions of individuals annually, and the share of this trade that comes from the wild is not always clear.<sup>9</sup>

Many pet species can be successfully

bred commercially, but wild stock may still be sought, either because the species is cheaper to source from the wild than to breed, or in the interests of increasing the genetic diversity of breeding stock. In this way, pet breeders can also become the source of demand for illegal trade.

In contrast, the zoo trade tends to involve a smaller number of larger animals, often selected precisely because they may have become rare in the wild. As the global economy develops and human populations grow and urbanize, the demand for zoos also grows. In addition, a broad

## Freshwater turtles and tortoises

Based on trade data, each year an estimated 10 million or more turtles are traded. Most of this trade is legal and derives from closed-cycle captive breeding operations<sup>10</sup> or legal, managed wild offtake, but an illegal component exists that threatens the survival of turtle populations. Most turtle species have low rates of survival to adulthood and mature at between 10 and 25 years of age, but they can live up to a century and reproduce throughout this time. This results in a large 'standing crop' of adults, with little recruitment into that population. This strategy has served turtles well throughout their long evolutionary history, but it fails when large numbers of adult turtles are removed for trade. The relatively recent (since about

1990) boom in international trade of wild-collected adult turtles has been particularly devastating to turtle populations in Asia, and there are indications that this trade has been expanding into North America and Africa.

Based on trade data, it appears turtles are traded for three main purposes:

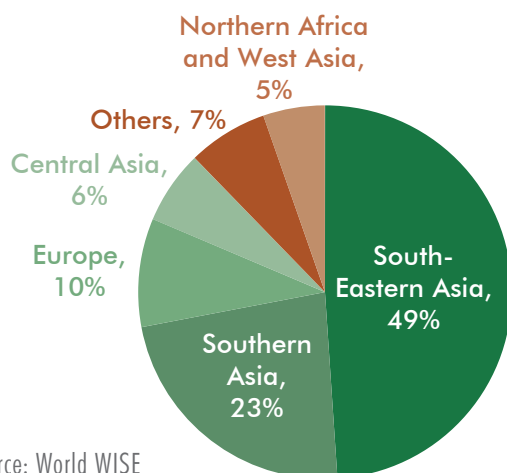
- as small hatchlings, for the pet trade;
- large live turtles or frozen or chilled turtle meat for human consumption; and
- for medicinal and cosmetic use, normally in the form of bones, cartilage, or processed preparations.

Notable turtle species that are threatened by poachers are the Ploughshare Tortoise

(*Astrochelys yniphora*) of Madagascar, the Roti Snake-necked turtle (*Chelodina mccordi*) of Indonesia and Timor-Leste, and the Yellow-margined Box Turtle (*Cuora flavomarginata*) of China.<sup>11</sup>

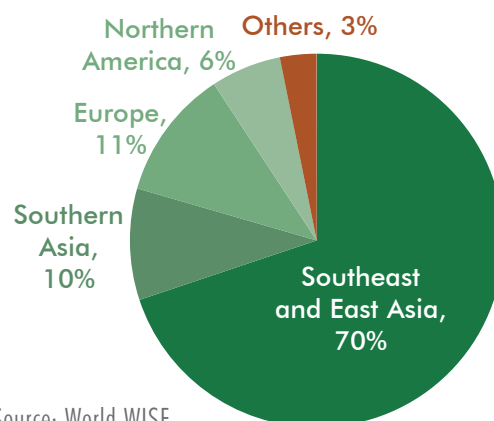
Of the roughly 330 turtle species currently recognized by science, most are protected or regulated under some form of domestic law or regulation. World WISE records for the period 2005-2015 indicate that some 88,000 live turtles, representing 106 different species of tortoises and freshwater turtles, were confiscated worldwide. Southeast and Southern Asia were the main sources of confiscated shipments, while Southeast and Eastern Asia were the main destinations.

Share of live turtles seizures by region identified as source, 2005-2015



Source: World WISE

Share of live turtles seizures by region identified as destination, 2005-2015



Source: World WISE





range of entertainment facilities, from circuses to themed parks and restaurants, may make use of live wildlife. With growing urban populations and growing affluence, the potential demand for protected species could be large in comparison to sustainable offtake from wild populations or breeder output.

About one quarter of all commercial live animal exports permitted under CITES in 2013 were declared as wild sourced, with most involving species of birds, amphibians, or reptiles prized in the pet trade. In terms of total live animals, the most commonly exported were map turtles (Box “Freshwater turtles and tortoises”). In terms of total number of shipments, the top two genera were types of parrots, the subject of this chapter.

## The parrot trade

The order *Psittaciformes*, commonly referred to as parrots, comprises a wide range of birds, including macaws, cockatoos, and parakeets. They are found across Africa, Australia and Oceania, Latin America, South Asia, and Southeast Asia. They dominate the pet bird trade in many key

markets, and they have long been wild sourced for this purpose. As a result, with the exception of four common species, the entire order is CITES listed.<sup>12</sup>

From the 1980s to the present, approximately 12 million live internationally protect parrots were reported in international trade, according to CITES export data. Most were either wild-sourced or of unknown origin (62%). Trade trends have been strongly influenced by national controls in key destination markets:

- In 1992, the United States passed the Wild Bird Conservation Act, which sharply reduced the number of parrots and other wild birds imported to the United States.<sup>13</sup>
- In 2005, the European Union banned the import of wild birds due to concerns about bird flu transmission.<sup>14</sup>

Both acts radically changed the international live bird market (Figure). Since 2006, the international trade in CITES-listed live birds has been dominated by parrots,<sup>15</sup> primarily for use in the pet trade.

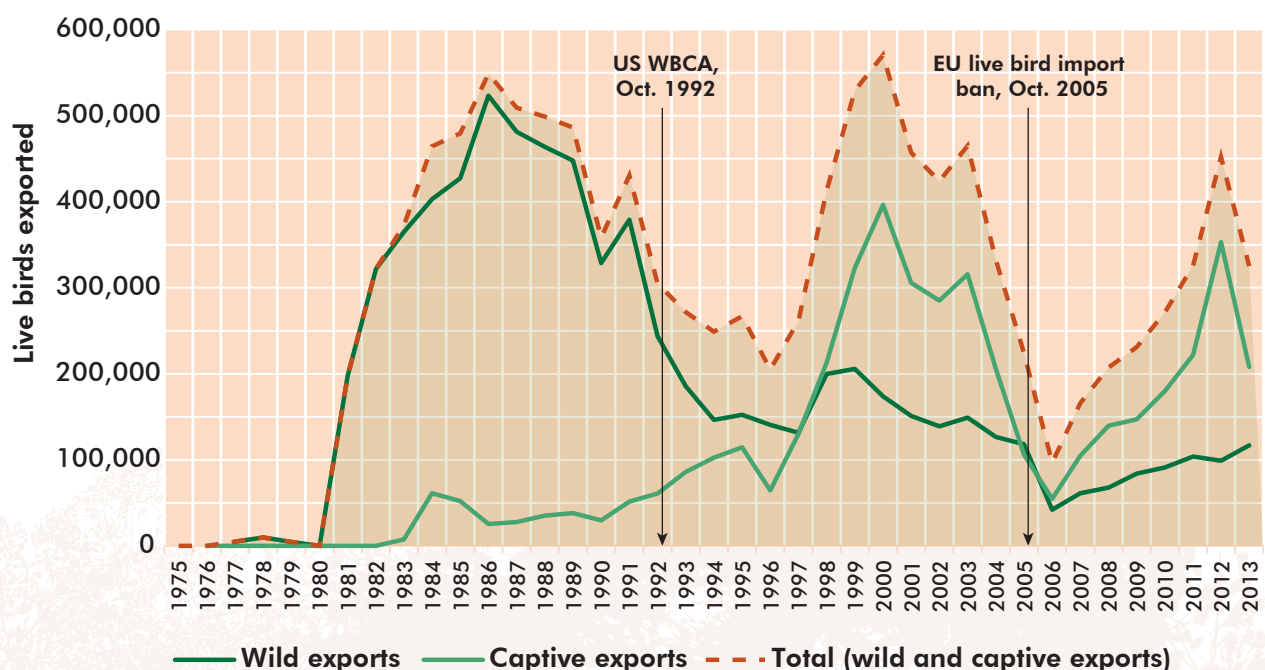
Advances over the past few decades have allowed many parrot species to be bred successfully, which has reduced the demand for wild-sourced birds in certain markets. Unfortunately, not all species do well in captivity and some consumer countries do not have access to captive bred parrots, so demand for wild birds persists. Wild birds are best used as breeding stock, as only hand reared parrots exhibit the domesticated features desired by pet owners.

The number of individuals that make it to market is far less than the number collected from the wild. When wild-sourced, parrots are often removed from the nest as infants. Increased competition between trappers has resulted in nestlings being taken at earlier ages, thus increasing the mortality rate.<sup>16</sup> An average mortality rate of 30% to 40% has been estimated.<sup>17</sup> Pre-export mortality averaging 50% or more has been found for some species.<sup>18</sup>

## Legal trade

The profile of the legal international trade in live parrots has experienced at least three distinct phases in the past 45 years.

**Fig. 2** Number of CITES-listed parrots legally exported by source (live and captive bred), 1975-2013



Source: CITES Trade Database

--- Between 1981 and 1993, the US and the EU were the destination for 81% of the global legal trade in parrots. Two-thirds of the global legal exports came from five countries: Argentina, Indonesia, Senegal, Tanzania, and Uruguay.<sup>19</sup>

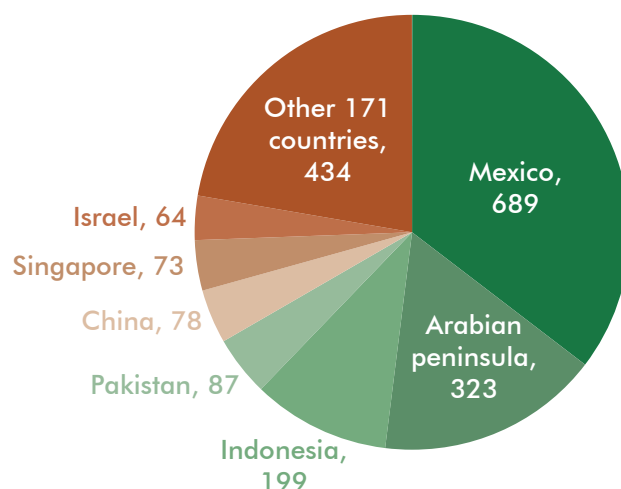
--- After the US import ban in 1994, only 4% of the global legal exports were destined for the US, with the EU becoming the destination for 59%. The top five legal exporters, accounting for just under two-thirds of global exports, were South Africa, the EU, China, Pakistan and Senegal.<sup>20</sup>

--- After the EU ban in 2005, about 35% of the global legal trade was destined for Mexico, three-quarters of which were wild-sourced monk parakeets. Markets in the Middle East and Asia began to grow. By 2012, live legal exports were comparable to 2003 levels. The top exporters also shifted again, with just two countries accounting for over half of global exports (South Africa and Uruguay) (Fig. 4).

Of the four families of parrots, the *Psittacidae*, or New World/Afrotropical parrots, accounted for the majority (57%) of the trade between 2007 and 2013. Within this family, the monk parakeet (*Myiopsitta monachus*) and the African Grey (*Psittacus erithacus*) were most commonly traded. Some 41% of all *Psittacidae* trade involved wild sourced monk parakeets, most of which originated in Uruguay. While they are CITES listed, monk parakeets are considered an invasive species in many parts of the world and in some places they are banned for import for this reason.<sup>21</sup> The main concern for legal trade, then, is the wild sourcing of African greys.

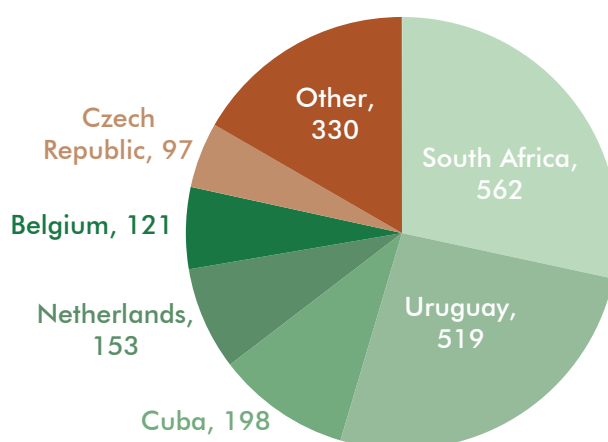
While there appear to be issues with New World parrots, the World WISE database suffers from a lack of data from Latin America. As a result, almost half of seizures recorded concern the African grey parrot (Fig. 6).

**Fig. 3** Share of CITES listed live parrots legally traded by country of import (thousands of live parrots), 2007-2013



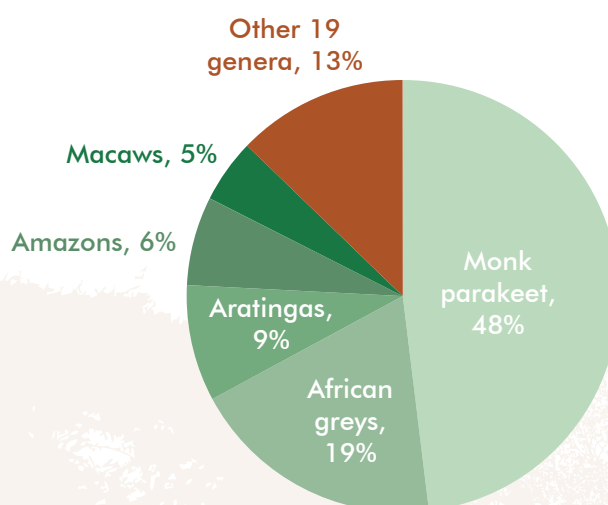
Source: CITES Trade Database

**Fig. 4** Share of CITES listed live parrots legally traded by exporting country (thousands of live parrots), 2007-2013



Source: CITES Trade Database

**Fig. 5** Share of CITES-listed parrot exports by genera, aggregated 2007-2014

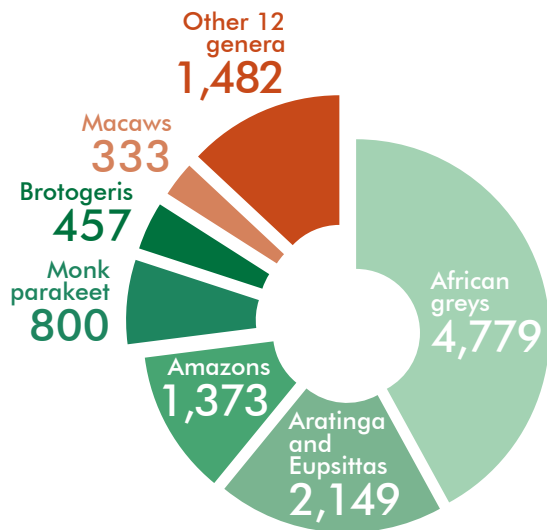


Source: CITES Trade Database<sup>22</sup>



This species has undergone CITES significant trade reviews which resulted in trade suspensions for some countries. International trade is now limited for many countries, with some having zero export quotas or moratoria on trade, and others imposing a reduction in quotas.<sup>23</sup>

**Fig. 6** Share of CITES-listed parrots (*Psittacidae* family) seized by genera (number of live parrots), aggregated 2007–2014



Source: World WISE

The African grey parrots (*Psittacus timneh* and *Psittacus erithacus*) are medium-sized parrots native to equatorial Africa, and are one of the most heavily traded CITES listed bird species. The Timneh African grey parrot is endemic to Western Africa, especially Côte d'Ivoire and Liberia, with an estimated population of roughly 120,000 to 250,000 birds. The species used to have a wider range, but heavy trade and habitat loss appear to have reduced the population in countries like Ghana by at least 90% between 1992 and 2016, based on recent research. During this time, Ghana's CITES-reported exports of Grey Parrots totaled just 35 individuals, so almost all of this trade was illegal.<sup>24</sup>

The Congo African grey parrot occurs over a wider area, but is especially concentrated in Central Africa, with a population that could range between half a million and 13 million birds.<sup>25</sup> The African grey parrot was listed

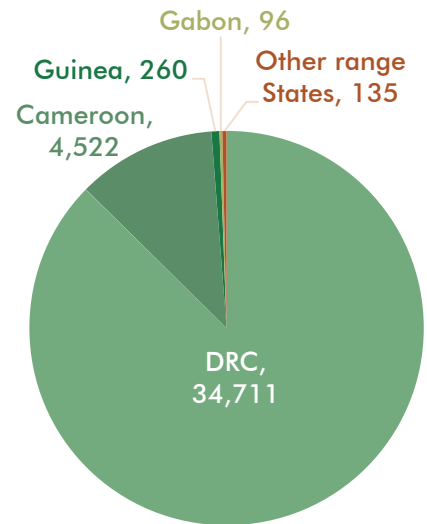
in CITES Appendix II in 1981 and has been under the significant trade review several times. Several countries have traded in wild-sourced African greys in the past, but many have export quotas or export bans today.

African greys are long-lived birds that mate only at about 10 years of age, so farming them involves significant delays and start-up costs, rendering the sector vulnerable to the introduction of wild-caught stock. Academic research has demonstrated the viability of breeding African greys for profit in South Africa,<sup>26</sup> but the mark ups from trapper to consumer suggest that wild sourcing is far more profitable. A number of studies over the years indicate that trappers tend to be paid between US\$10 and US\$20 per bird, with middlemen essentially doubling this price.<sup>27</sup> In 2011, the mean price to buy an individual African grey parrot in Cameroon was less than US\$100, and many times this price could be commanded in retail markets abroad at the time.<sup>28</sup>

Between 2007 and 2014, the primary range state legally exporting African grey parrots was the Democratic Republic of the Congo (Fig. 7). Importing countries have reported higher volumes than reported exports.<sup>29</sup> The discrepancy between import and export numbers may be partially due to the delayed reporting from exporting range states, but there have also been instances where corrupt officials have authorized the export of more birds than officially reported.

The main destination of these African grey exports has been South Africa, which imports wild sourced birds from the Democratic Republic of the Congo and exports captive bred ones.<sup>31</sup> Concerns about this market have been expressed in the past, as media report that trafficking has been detected.<sup>32</sup> The Arabian Peninsula is also an importer, a breeding center, and a destination market for parrots. The role of the region only becomes clear in more recent data, since Bahrain only joined CITES in 2012.

**Fig. 7** Share of African grey parrots legally exported by range state (number of live parrots), aggregated 2007–2014



Source: CITES Trade Database

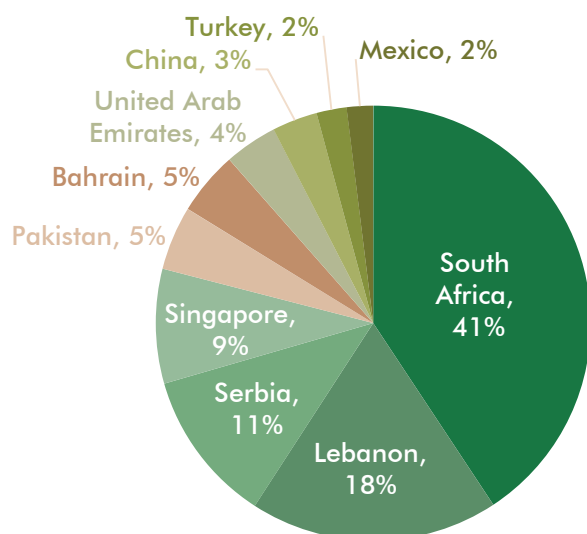
Import data indicates some 29,000 African greys were exported from Bahrain between 2007 and 2014. When looking at all legal exporting countries in order of importance, the United Arab Emirates, Bahrain and Oman were indicated as the main destinations, and most of the birds that they received were reported as captive sourced.

## Illegal trade

It appears that there is a great deal of illicit trade in New World parrots for domestic markets, based on research in Bolivia, Peru, and Mexico.<sup>33</sup> Rural people capture the birds for sale at open air markets, often by taking infant birds from nests, although mist netting is also employed in some areas.<sup>34</sup> In addition to the illegal domestic and regional markets, illegal international trade also occurs. Trafficking of parrots from Mexico to the United States has been noted.<sup>35</sup> There is also trafficking of New World parrots from Latin America to Europe (Box "New World Parrots"). INTERPOL's 2012 "Operation Cage" was launched in response to the trade of captive-bred and wild birds and eggs transiting from Latin America to

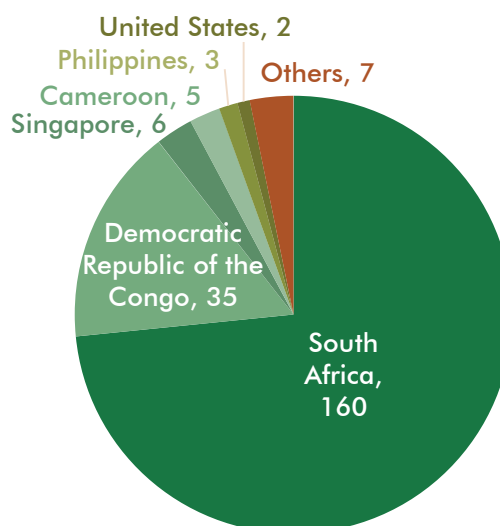


**Fig. 8** Share of African grey parrots legally exported from range states by importing country (thousands of live parrots), aggregated 2007-2014



Source: CITES Trade Database data

**Fig. 9** Share of African grey parrots legally exported by exporting country (thousands of live parrots), aggregated 2007-2014



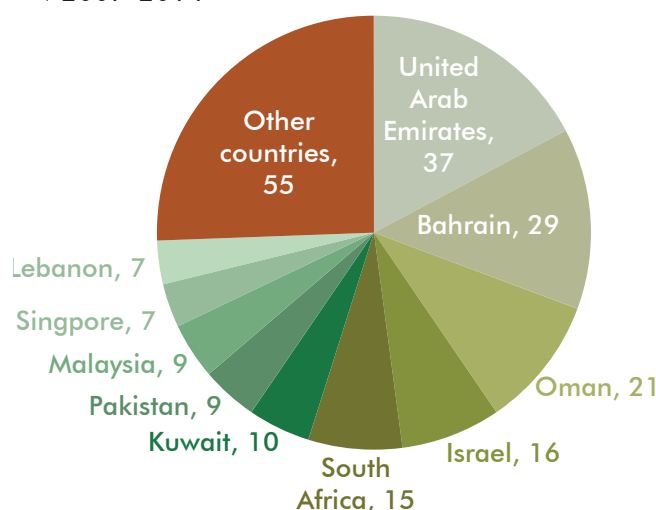
Source: CITES Trade Database data

## New World Parrots

Illegal trade in New World parrots is of great concern within Latin America, specifically the domestic and regional markets in Bolivia, Peru, and Mexico.<sup>36</sup> Many Latin American countries have national export quotas and restrictions on which parrot species they can export. Brazil, for example, does not permit the export of wild parrots, which means the only option for buyers is to smuggle them out of the country.

Brazil, Mexico and Peru have reported parrot seizures in their countries; however it is unclear whether the birds were intended for the domestic, regional or international markets.<sup>37</sup> According to World WISE, Portugal and Spain have seized the most New World parrots, and have also seized African parrots, Australian parrots and Cockatoos. Between 2009 and 2012, Portugal seized 222 parrots or eggs from Brazil.<sup>38</sup> Spain seized 175 New World parrots between 2007 and 2012, 30 of which were eggs from Brazil. The two largest single seizures of New World parrot eggs occurred in Switzerland in 2013 (150 Brazilian eggs) and Austria in 2011 (74 Amazonian eggs from Jamaica).<sup>39</sup>

**Fig. 10** Share of African grey parrots legally imported by exporting country (thousands of live parrots), aggregated 2007-2014



Source: CITES Trade Database data

Europe. But it appears that the best known transnational parrot trade involves the African grey.

The African grey parrot trade has been reviewed by CITES on several occasions. Issues emerged, including the falsification of CITES permits, export in excess of established quotas, and other management issues. As a result, quotas and/or moratoria on exports have been imposed on various range

States.<sup>40</sup> The Democratic Republic of the Congo has been subject to trade suspensions resulting from the African grey parrot trade due concerns over fraudulent use of permits.<sup>41</sup> In 2013, concerns that the Democratic Republic of the Congo has been exporting in excess of established quotas resulted in a notification that countries must contact the CITES Secretariat for verification before accepting any export permits issued by the Democratic



Republic of the Congo.<sup>42</sup> In 2016, a notification recommending suspension of trade was issued.<sup>43</sup>

Similar to reptiles, parrot trappers are often unlicensed and have little knowledge of CITES regulations, or even local laws.<sup>44</sup> The illegal market involves many of the same players as the legal market. Generally speaking, once local buyers get an order from exporters, they will place an order with trappers. The local buyers will then travel to the capture sites to prepare the birds for transport. In some cases, the local buyers will accumulate birds until the order is ready and ship them to the exporters. In the Democratic Republic of the Congo many trappers and buyers operate without valid permits and pay little attention to closed periods of capture. According to interviews with trappers and buyers, none of the people interviewed had any knowledge of CITES quotas and had little to no contact with CITES authorities.<sup>45</sup>

As with legally sourced wild parrots, African greys are often illegally sourced by rural people by raiding nests, but they are also taken as adults. Interviews with dealers in Ghana show a huge increase in local prices between the early 1990s and 2014, suggesting growing scarcity and, possibly, demand.<sup>46</sup> Interviews with former trappers in Ghana found that some had actually emigrated to countries with larger parrot populations (Cote d'Ivoire, Liberia and even DRC) when the livelihood became unsustainable in the 1990s.<sup>47</sup>

Trafficking of large volumes of African grey parrots has been detected on numerous occasions, usually with high mortality among the rescued birds. For example, in September 2010, 523 African grey parrots were seized in Kavumu in the Democratic Republic of the Congo on their way to being flown to Singapore, due to clearly fraudulent paperwork. They were sent to a nearby primate sanctuary, where they were held for about three months before they were physically removed by armed men.<sup>48</sup>



### International parrot trafficker arrested in Senegal

In 2015, an international bird trafficker was arrested by Senegalese police after a lengthy investigation. The trafficker was in possession of almost 800 parrots, 109 of which were African grey Timneh and 80 were Senegal parrots, both of which are CITES listed species. The African grey parrots were accompanied with CITES documentation of Malian origin and were destined for Jordan. Investigations revealed that, for several years, the bird trafficker and his associates had been active in the trafficking of African parrots into Europe, via Spain and Turkey.<sup>49</sup>

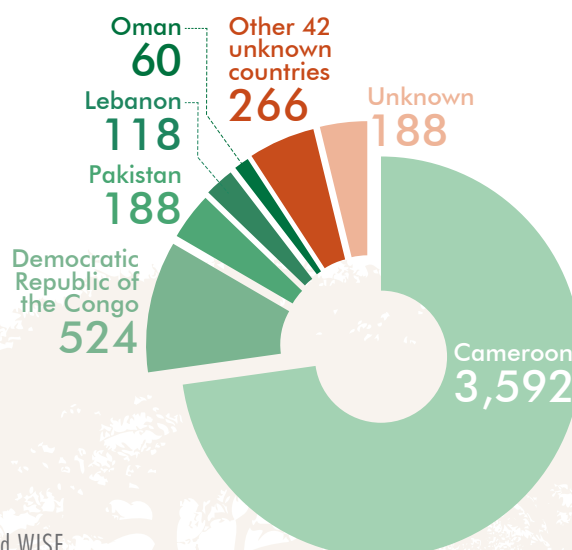
Similarly, in 2009, more than 1000 African grey parrots were seized at the Douala International Airport ready to be exported to the Middle East.<sup>50</sup> More recently, an international bird trafficker was arrested in 2015 with connections in African countries and Europe (Box "International parrot trafficker arrested in Senegal").

Following CITES recommendations from the Significant Trade Review,

Cameroon developed a management plan for African greys in Cameroon.<sup>51</sup> This document raised concerns around what appears to be an international network involved in parrot trafficking.<sup>52</sup> Investigations revealed many of the international traffickers working with the Cameroonians came from other countries in the region. In northern Cameroon, they came from Chad. In eastern Cameroon, they came from the Central African Republic, Equatorial Guinea, and Gabon. In southwestern Cameroon they came from Nigeria and Ghana.<sup>53</sup> Smuggling of parrots was found to be common along the borders between Cameroon, the Central African Republic, Chad, Equatorial Guinea, and Nigeria.<sup>54</sup> When Cameroonian parrots arrived in a neighboring country, export documents would be prepared, falsely certifying a local origin. Shipping parrots by sea results in high mortality, so they were most often shipped by air. Most confiscations have occurred when the parrots are being transported. Following the moratorium on exports (due to recommendations from the CITES significant trade reviews), illegal trade appeared to increase in Cameroon.<sup>55</sup>

According to World WISE, the majority of African grey seizures indicated Cameroon or the Democratic

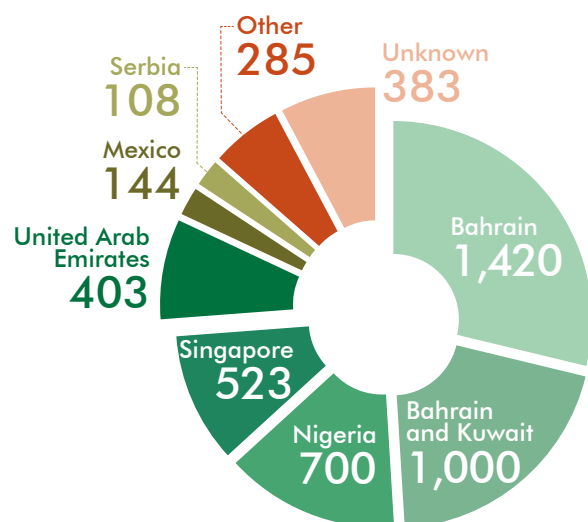
**Fig. 11** Share of African grey parrots seizures by country identified as source (number of live parrots), aggregated 2007-2014



Source: World WISE



**Fig. 12** Share of African grey parrots seized by identified destination country (number of live parrots), aggregated 2007-2014



Source: World WISE

Republic of the Congo as the primary source of shipment. The majority of parrots were destined for the Arabian Peninsula, with Singapore and Nigeria (likely transit countries) both representing a significant share (Fig. 12). Bahrain is the single largest national destination indicated.

## Analysis

In 2013, some 325,000 CITES listed parrots were legally exported, of which over a third were reportedly wild sourced. In 2010, the export quota for wild-sourced African greys was 9,000 birds, and 2,701 were seized, according to World WISE records. The large seizure volume compared to legal trade suggests a highly criminalised market, rooted in Central Africa and destined largely for the Arabian Peninsula.

The trade in live animals, for pets or zoos, is especially challenging for wildlife traffickers, because the stresses of international movement often kill off a significant share of the shipment. Parrot species, which are commonly wild sourced in South America and Africa, are especially vulnerable to these shocks. Some of the largest markets for pet birds have banned the import of wild parrots, for health

or conservation reasons, and breeders in these regions appear to have been able to satisfy demand, but demand for wild birds remains strong in other regions.

## Endnotes

- 1 See, for example, Human Society of the United States "Pets by the numbers": [http://www.humanesociety.org/issues/pet\\_overpopulation/facts/pet\\_ownership\\_statistics.html](http://www.humanesociety.org/issues/pet_overpopulation/facts/pet_ownership_statistics.html), and Pet Food Manufacturers Association, "Pet Population 2013": <http://www.pfma.org.uk/pet-population/>
- 2 European Pet Food Industry "Facts and Figures": <http://www.fediaf.org/facts-figures/>
- 3 J. Refisch and I.Koné, "Impact of commercial hunting on monkey populations in the Taï region, Côte d'Ivoire", *Biotropica*, vol. 37, (2005), pp. 136-44.
- 4 D. Stiles and others, eds., *Stolen Apes: The Illicit Trade in Chimpanzees, Gorillas, Bonobos and Orangutans. A Rapid Response Assessment*, (United Nations Environment Programme, GRID-Arendal, 2013).
- 5 For example, the CITES Secretariat is currently working with the IUCN Primate Specialist Group and GRASP to prepare a report for the 17th meeting of the CITES Conference of the Parties in Johannesburg, (September 2016).
- 6 See CITES and UNEP "Great apes exported from Guinea to China from 2009 to 2011." January 2014: <https://cites.org/sites/default/files/common/docs/CITES-Guinea-China-great-apes.pdf>; and John Caldwell, Guinea – an analysis of recent wildlife trade: A confidential report prepared for the CITES Secretariat, April 2012: [https://cites.org/eng/com/sc/62/Caldwell\\_Report.pdf](https://cites.org/eng/com/sc/62/Caldwell_Report.pdf); and SC61 Doc.30, "Enforcement matters": <https://cites.org/eng/com/sc/61/E61-30.pdf>
- 7 CITES Website "CITES Secretariat confirms the arrest of former wildlife director in Guinea and applauds national authorities' work": [https://cites.org/eng/guinea\\_arrest\\_20150903](https://cites.org/eng/guinea_arrest_20150903)
- 8 Dan Stiles and others, *Stolen Apes – The Illicit Trade in Chimpanzees, Gorillas, Bonobos and Orangutans*. United Nations Environment Programme, GRID-Arendal (2013).
- 9 The scale of the trade can be seen in the COMTRADE data and, for protected species, the CITES trade data.
- 10 For example, the United States' turtle farms annually produce 6-10 million hatchling sliders, map turtles and softshell turtles for the global pet trade and aquaculture. Chinese aquaculture facilities produce and rear millions of Chinese Softshelled Turtles (*Pelodiscus* spp.) for mainly domestic consumption. Peter Paul van Dijk, Director, Turtle Conservation Program at Global Wildlife Conservation, *in litt*.
- 11 See the IUCN Red List for these species.
- 12 In 1976, one family of parrots was listed in CITES (family listing of *Psittacidae* spp.). In 1981, all parrots were listed in CITES (parrot order *Psittaciformes* spp.), except four popular parrot species common in the pet trade: the *Agapornis roseicollis* (Rose-faced lovebird), *Melopsittacus undulatus* (Budgerigar), *Nymphicus hollandicus* (Cockatiel), and *Psittacula krameri* (Rose-ringed parakeet). See CITES Species+ for details.
- 13 16 USC 4901-4916 "Wild Bird Conservation Act": <http://www.fws.gov/le/USStatutes/WBCA.pdf>
- 14 See Official Journal of the European Union, "Commission Implementing Regulation No 139/2013 of 7 January 2013 laying down animal health conditions for imports of certain birds into the Union and the quarantine conditions thereof": <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0139&from=EN>
- 15 From 1985 to 2005, the *Passeriformes* order (perching birds) accounted for 54% and the *Psittaciformes* order (parrots) accounted for 43% of the CITES-listed trade. But in October 2005, the EU implemented a temporary import ban on live birds (due to health concerns) which ran until 2013. In 2007 many of the perching birds were de-listed. After the ban, parrots accounted for 91% of CITES-listed birds in trade; while *Passeriformes* trade dropped to less than one percent, according to the CITES Trade Database.
- 16 Philip McGowan 2008, CITES Non Detriment Finding.
- 17 Ibid.
- 18 J.R. Clemmons, *Status survey of the African grey parrot (Psittacus erithacus timneh) and development of a management program in Guinea and Guinea-Bissau*, report to the CITES Secretariat, (Geneva, Switzerland, 2003).



- 19 If considering the EU as a single exporting market, the EU comprised 6% of the global exports during 1981 to 1993. In such a case it would then be in the top five exporters (the Netherlands and Belgium accounted for 94% of the EU total). The top 10 exporting countries accounted for 84% of the global trade during 1981 to 1993 (Argentina 27%, Indonesia 15%, Tanzania 11%, Uruguay 7%, Senegal 5%, Guyana 5%, Netherlands 4%, Peru 4%, India 3%, and Cameroon 2%).
- 20 The top 10 exporting countries accounted for 74% of the global trade during 1994 to 2005 (South Africa 21%, China 13%, Netherlands 8%, Pakistan 6%, Senegal 6%, Cuba 5%, Guinea 4%, Argentina 4%, Cameroon 4%, and the Czech Republic 3%).
- 21 The monk parakeet is considered an agricultural pest and also an invasive species, thus some places have implemented eradication efforts while others have prohibited their import, sale or ownership. J. Newman and others, "Monk Parakeets: An expanding problem on power lines and other electric utility structures", prepared for the Environmental Concerns in Rights-of-Way Management 8th International Symposium, (Saratoga Springs, New York, 12–16 September 2004); C. van Ham, P. Genovesi and R. Scalera, "Invasive alien species: the urban dimension", case studies on strengthening local action in Europe. (Brussels, IUCN European Union Representative Office, 2013), p. 103. Also see the Global Invasive Species Database (2016) Species profile: *Myiopsitta monachus*. Downloaded from: <http://www.iucngisd.org/gisd/species.php?sc=1021> on 05-05-2016.
- 22 The top five groups of New world and Afro-tropical parrots include the Monk parakeet (*Myiopsitta* sp.), African Grey (*Psittacus* sp.), Conures (*Aratinga* sp.), Amazons (*Amazonia* sp.), and the Macaws (*Primolius* sp., *Anodorhynchus* sp., *Ara* sp., *Diopsittaca* sp., *Cyanopsitta* sp., and *Orthopsittaca* sp.).
- 23 See CITES SC55 Doc.17 "Review of significant trade": <https://cites.org/sites/default/files/eng/com/sc/55/E55-17.pdf> CITES AC22 Doc.10.2 "Review of significant trade": <https://www.cites.org/sites/default/files/eng/com/ac/22/E22-10-2.pdf> CITES AC26/PC20 Doc.7 "Review of significant trade": <https://cites.org/sites/default/files/eng/com/ac-pc/ac26-pc20/E-AC26-PC20-07.pdf> and McGowan, 2008, op cit.
- 24 Nathaniel Annorbah, Nigel Collar and Stuart Marsden, "Trade and habitat change virtually eliminate the Grey Parrot *Psittacus erithacus* from Ghana", *Ibis*, vol. 158 (2016), pp.82-91.
- 25 BirdLife International. 2013. *Psittacus erithacus*. The IUCN Red List of Threatened Species 2013: e.T22724813A48141088. <http://dx.doi.org/10.2305/IUCN.UK.2013-2.RLTS.T22724813A48141088.en>. Downloaded on 18 December 2015.
- 26 D. Dennison, "A nutritional and financial evaluation of breeding Africa grey parrots (*Psittacus erithacus*)", thesis, University of Stellenbosch, 2004.
- 27 One study of the trade in wild-sourced African greys found the value of a single bird to grow from US\$10 to US\$18 for the trapper to US\$1,000 for the wholesale buyer. In 2004, the Government of Cameroon issued licenses to individuals to capture and export parrots at a minimum price of US\$16 per bird. In 2011, trappers in Cameroon would sell juvenile wild parrots for US\$9.50 to US\$11.40 (and middlemen would sell to exporters for USD19 to USD28.50. While in the DRC, trappers would sell parrots for US\$15 to US\$25. See Julius Chupezi Tieguhong, Ousseynou Ndoeye and Thierry Ontcha Mpele, "Commodity-Chain Analysis for the Capture and trade in the African grey parrots (*Psittacus erithacus*) in Cameroon", paper for the Eleventh Conference of the International Association for the Study of Common Property, Bali, June 2006; Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), "Strengthening Capacity for Monitoring and Regulation of International Trade of African grey parrot", report prepared by BirdLife Africa Partnership Secretariat, (Geneva, 2013); and CITES SC62.27.3 Cameroon report.
- 28 CITES SC62 Cameroon report.
- 29 Some notable differences were the reported imports of African greys originating from the DRC (45,633), the Congo (18,493), Central African Republic (6,183), Guinea (5,280), Cameroon (3,119) and other African countries (893).
- 30 CITES, Concerning the Democratic Republic of the Congo, Recommendation to suspend trade in African grey parrots, No. 2016/021 Geneva, 16 March 2016: <https://cites.org/sites/default/files/notif/E-Notif-2016-021.pdf>
- 31 A number of key African source countries have not yet submitted trade data for 2011 to 2013, thus the reported import data and export data may differ.
- 32 In April 2011, a group of porters with four crates of African grey parrots was discovered near the Mozambique/South Africa border. The authorities recovered 161 parrots, which were given to a South African parrot trader who claimed ownership. <http://www.iol.co.za/saturday-star/state-hands-over-parrots-to-mozambique-1123416>.
- 33 Stephen F. Pires and Gohar A. Petrossian, "Understanding parrot trafficking between illicit markets in Bolivia: An application of the CRAVED model". *International Journal of Comparative and Applied Criminal Justice*, Vol. 40, No. 1, 2016.
- 34 Ibid.
- 35 <http://www.birdlife.org/datazone/sowb/casestudy/165>
- 36 Stephen Pires and Gohar Etrossian, "Understanding parrot trafficking between illicit markets in Bolivia: An application of the CRAVED model", *International Journal of Comparative and Applied Criminal Justice*, vol. 40, No. 1 (2016).
- 37 Based on WorldWise data.
- 38 Close to 300 other parrot species were also seized during this time. See CITES Biennial reports from Portugal.
- 39 Close to 360 other parrot species were identified during CITES interventions. See CITES Biennial reports from Spain.
- 40 Cameroon was subject to concern over excess of quotas and was subject to a zero quota for five years. In 2012, Cameroon finalized a population status and management plan for African greys. The zero quota has since been removed with Cameroon having an export quota of 3,000 parrots (2012-2015). African greys were reviewed prior to the establishment of a formalized review process (in 1988). Since that time the species has undergone additional reviews (1992, 2006, 2011). The 2011 review (post Cop15) was to assess those range states that did not already have recommendations in effect.
- 41 CITES AC26/PC20 Doc.7 Annex 5, "Review of significant trade": <https://cites.org/sites/default/files/eng/com/ac-pc/ac26-pc20/E-AC26-PC20-07.pdf>
- 42 CITES Notification Nos. 2013/51 and 2014/017.
- 43 CITES notification No. 2016/021, op cit.
- 44 CITES Secretariat (BirdLife), 2013, op cit.
- 45 Ibid.
- 46 Nathaniel Annorbah, Nigel Collar and Stuart Marsden, "Trade and habitat change virtually eliminate the Grey Parrot *Psittacus erithacus* from Ghana", *Ibis*, vol. 158 (2016), pp.82-91. Prices cited by seven dealers averaged US\$230, but two dealers stated that Grey Parrots could sell for US\$330–660 if bought by expatriates. Prices in an earlier study averaged US\$8–12, and the birds were generally passed on from dealer to exporter usually for less than US\$20.
- 47 Ibid.
- 48 In litt. LAGA and Eagle Network 2016. Also see IUCN press release: [https://www.iucn.org/news\\_homepage/all\\_news\\_by\\_theme/protected\\_areas\\_news/22006/Major-trafficker-of-African-parrots-arrested-and-89-threatened-Timneh-parrots-seized-and-Parrots-Daily-News](https://www.iucn.org/news_homepage/all_news_by_theme/protected_areas_news/22006/Major-trafficker-of-African-parrots-arrested-and-89-threatened-Timneh-parrots-seized-and-Parrots-Daily-News) <http://www.parrotsdailynews.com/senegal-police-arrested-an-international-bird-trafficker/>
- 49 Based on documents provided by Lwiro Sanctuary, DRC. Further information is available in the on-line methodological annex for this report.
- 50 The Last Great Ape Organization – January 2010 Report: <http://www.laga-enforcement.org/Portals/0/Documents/Activity%20reports%202010/Activity%20Report%20-%20May%202010.pdf>
- 51 See CITES docs SC57 Doc 29.1; AC26/PC20 Doc. 7, Annex 5 and SC62 Doc. 27.3, op cit.
- 52 S. Tamungang and R. Cheke, "Population status and management plan of the African grey parrot in Cameroon", (Ministry of Wildlife, Cameroon, 2012).
- 53 Ibid.
- 54 Ibid.
- 55 Ibid.