

In the mid-1990s, the retail trade in wildlife products in Cambodia's main cities and towns was considerable. In Phnom Penh, the principal markets featured numerous and varied live wild animals and wildlife products for sale, whilst vendors in the small town of Poipet, for instance, offered items from at least 21 different mammal species (Martin and Phipps, 1996). By 2001, due to improved law enforcement by the government, working closely with several non-



PHOTOGRAPHS: CHRYSSEE MARTIN

THE DECLINE IN CAMBODIA'S IVORY TRADE

governmental organizations (NGOs), the quantity and diversity of wildlife products for retail sale had decreased significantly, and the wildlife market in Poipet had almost collapsed. Nevertheless, in Phnom Penh in the same year, there were at least 55 retail outlets offering 1683 ivory items, mainly small amulets carved into the shape of a Buddha (82%) and flower bud pendants (9%); in addition, 13 different elephant parts were on display in retail outlets in the capital city (Martin and Stiles, 2002).

Since 1994, trade in new ivory has been prohibited in Cambodia (Sanderson, 2001). The country ratified the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in 1997, since when there have been few known ivory imports to supply the domestic market; Khmer ivory craftsmen and their customers prefer Asian Elephant ivory to African, and there are adequate quantities available from the country's elephant population to meet limited local demand. In March 2013, the authors undertook a survey to assess the availability of ivory in the country and their findings are summarized below.

Sources and prices of tusks

There are two sources for elephant tusks in Cambodia: one is from the 400 to 600 remaining wild elephants in the country (Prun Sovanna, Deputy Director, Mondulkiri Protected Forest, pers. comm., March 2013; Matt Maltby, Fauna and Flora International, Phnom Penh, pers. comm., March 2013). In 2010, two elephants were known to have been killed illegally: in the Seima Protection Forest in Mondulkiri Province and Mondulkiri Protected Forest (Maltby and Bourchier, 2011); none was poached in 2011 or 2012.

However, five were killed in neighbouring Yok Don National Park in Viet Nam in 2012, some of which may have originated from Cambodia. Their tusks and tushes—the small ivory teeth of female elephants—were probably sold in Viet Nam, where prices are reportedly higher (Prun Sovanna, pers. comm., March 2013).

There has been little elephant poaching in Cambodia recently because the government, with the support of the NGO community, has expanded patrolling efforts, enforced wildlife laws backed by strong penalties, and improved the livelihoods of local rural people (Prun Sovanna, pers. comm., March 2013; Maltby and Bourchier, 2011). Wildlife Alliance, an NGO with strong government co-operation, started closing down retail outlets offering ivory in 2000/2001. In 2010, it deployed its Wildlife Rapid Response Teams in co-operation with several government law enforcement agencies to reduce poaching and the sale of wildlife products, and this effort is ongoing.

In addition to ivory derived from wild elephants, raw ivory for Khmer craftsmen also comes from the tusk tips removed from captive elephants whilst living, or obtained from those that die. There are only 91 captive elephants remaining, down from 101 in 2009, as the local indigenous groups of people who keep elephants have a law against breeding them (Maltby pers. comm., March 2013). Connections to the Thai ivory trade were not established during this study.

IVORY BEING CARVED IN PHNOM PENH (ABOVE); IVORY AMULETS AND PENDANTS ON SALE IN PHNOM PENH (BELOW). THE CROSS-HATCHING CHARACTERISTIC OF IVORY IS VISIBLE ON THE CARVED HEART.



ESMOND MARTIN



ESMOND MARTIN

Prices paid by craftsmen for local Asian Elephant tusks have recently risen sharply: in 2011 an average 2–5 kg tusk could be purchased for USD600–700/kg; USD1200 in 2012; and, at the time of the latest survey, in March 2013, USD1600–2000 per kg, according to ivory artisans. There is no evidence suggesting that African ivory is used by the craftsmen, now or in the recent past.

Ivory craftsmen in Phnom Penh

In 1994, about 30 craftsmen worked ivory in Phnom Penh, but not on a full-time basis (Martin and Phipps, 1996). In 2001, the number decreased to about 25 (Martin and Stiles, 2002). There were even fewer in 2013. The authors found three ivory craftsmen in small, open air workshops in central Phnom Penh, whilst others probably work from their homes.



ESMOND MARTIN

IVORY BEING CARVED IN PHNOM PENH (BELOW) AND IVORY CARVINGS FOR SALE IN THE CITY (ABOVE). IT IS ESTIMATED THAT THE IVORY AMULETS AND PENDANTS—MAKING UP PRACTICALLY 90% OF THE 981 IVORY ITEMS ON SALE IN MARCH 2013—WOULD HAVE BEEN CARVED FROM LESS THAN 30 KG OF RAW IVORY.



CHRYSSEE MARTIN

The craftsmen prefer local Asian Elephant tusks because they claim that the inside of the tusks is slightly brown compared to the whiteness of African tusks. These tusks may also be preferred by customers because they appear to be older—almost antique in appearance, although some ivory items are also stained to give an antique appearance. One carver told the authors that African tusks “have no power and are not attractive”. All three carvers at the time of being interviewed had worked on ivory within the previous few days, but worked most of the time on bones and a variety of woods. The majority of the ivory items crafted in Cambodia are the small 2.5-cm Buddha amulets, whilst the second-most popular items are 3-cm long, flower bud pendants. Additional objects occasionally crafted from ivory include 3-cm miniature tusk pendants, other jewellery items and 1–2-cm animal figurines. Both hand tools and electrically powered drills are used.

Retail outlets and prices of worked ivory in Phnom Penh

In March 2013, 48 retail outlets in Phnom Penh were identified offering some 945 ivory items for sale; this figure is approximate, however, as it was sometimes difficult to identify the raw material used for very small pieces. Furthermore, many of the ivory Buddha amulets are partly covered in metal casing making identification of the raw material more difficult. Criteria used to identify the materials were based on: physical examination of the object; information from the vendors; quality of carving (usually the carving of ivory is of a higher standard than for those items crafted from less expensive raw materials); and price (inexpensive objects are rarely ivory). Over half of the surveyed retail outlets with ivory were jewellery shops (52%), followed by souvenir outlets (16%), shops selling both jewellery and souvenirs (9%), antique souvenir shops (7%), silver shops (7%) and other miscellaneous outlets (9%). Few of the jewellery shops displayed ivory: for instance, of the 74 jewellery shops on the mezzanine floor in the Olympic market, only four displayed ivory items. Of these approximate 945 items, 73% were Buddha amulets. The ivory flower bud pendants comprised 16% of the total ivory items seen for retail sale in Phnom Penh. Others included Buddha and animal figurines, chopsticks, miniature tusk pendants and rings. Importantly, almost all the ivory objects seen in Phnom Penh had been crafted locally, within the past 25 years, apart from a few foreign-made objects such as one pair of old European opera glasses and a few older Chinese chopsticks. There were some older Cambodian items: 10–25-cm Buddha figurines and hair combs. There were no recognizably new Chinese ivory items, which is unusual for a South-east Asian country.

The highest prices for ivory items in Phnom Penh were found in one hotel and in a modern western-style mall. Retail prices for Buddha amulets not covered in metal casing ranged from USD15–150 (with an average price of USD55); flower bud pendants (between USD15–35, with an average price of USD21). Traditionally, Cambodians

believe that owning an ivory Buddha amulet or other ivory item brings good luck, prosperity and good health. Men tend to wear the Buddha amulets around their necks, display them at home, and give them to children. The flower bud pendants are worn by women. Almost all customers buying ivory items were reportedly Cambodians, while the few others are Europeans. The most expensive items were two Buddha figures (of 20 cm for USD3500 and 25 cm for USD5000). Some shops had fixed prices but others would reduce their prices by 20% or more. The prices given here were before bargaining.

Retail outlets and prices of worked ivory in Siem Reap

Siem Reap, the town adjacent to the Angkor Wat ruins, has greatly expanded since the early 2000s due to the massive increase in foreign tourists which, from 2003 to 2011, quadrupled to 1 610 076 visitors (Kingdom of Cambodia, 2012). There are many hundreds of jewellery and souvenir shops in the town, but only three retail outlets were identified displaying a total of 36 ivory items. Only one jewellery shop displayed an ivory Buddha amulet for USD220; a gift shop had nine ivory bangles from West Africa made over 25 years ago (that were priced for between USD550 and USD1100 each) and an ivory armband (USD1350). In a third shop, selling antiques, 25 Asian Elephant ivory items that had been locally crafted were found, some about 100 years old, the vendor said. These included 19 Chinese-style hairpins (USD300 each) and two pairs of polished tusks: one pair measured 68 cm (USD4600) and the other was one metre (USD12 000). The vendor warned the authors not to try to carry ivory items out of the country, but to post them, mixed with other objects. The main buyers of these few ivory items in Siem Reap are foreigners, but not Chinese.

Although there are carvers practising their craft in Siem Reap, they hardly ever work ivory. At the “Artisans Angkor” workshops visited daily by hundreds of tourists, craftsmen were carving stone and wood, but not ivory, working a five-and-a-half day week and earning about USD100 a month. No ivory items were seen at the souvenir stalls at Angkor Wat.

Alternative materials for elephant ivory

There were thousands of Buddha amulets for sale in Phnom Penh in 2013, but the great majority were made of plastic, wood, and bone from cows, water buffaloes and elephants. Retail prices for these Buddha amulets were around USD5–10.

DISCUSSION AND CONCLUSION

Where large amounts of wildlife items were on sale in Phnom Penh’s retail outlets during surveys carried out in 1994 and 2001, these had all but disappeared by the time of the current survey. Furthermore, most of the 981 ivory items observed for sale in Phnom Penh and Siem Reap in 2013 had been carved some years earlier. There

are several reasons for this significant reduction in ivory. First, the government and NGOs crack down on elephant poaching has reduced the supply of tusks in the Cambodian market. Secondly, stronger law enforcement has made it riskier to sell newly-made ivory objects, so prices have become too high for many Cambodians. In 2001, ivory craftsmen in Phnom Penh paid on average USD350/kg for tusks weighing between two and five kilogrammes (Martin and Stiles, 2002) compared to USD1800/kg in March 2013. Over the same period, the average retail price for an ivory Buddha amulet increased from USD11 to USD55, and for a flower bud pendant from USD7 to USD21. Thirdly, Cambodians reportedly now prefer to purchase gemstones and gold. No-one was seen to buy ivory during the March 2013 survey. Despite the fact that some 334 000 Chinese nationals visited Cambodia during 2012 (Kingdom of Cambodia, 2013), it was reported that Cambodian-style amulets and pendants do not appeal to the Chinese, even though they are the principal buyers of worked ivory elsewhere in Asia.

It is estimated that the ivory amulets and pendants, making up practically 90% of the 981 ivory items on sale during March 2013, would have been carved from less than 30 kg of raw ivory. Thus, unlike in neighbouring countries—Lao PDR, Myanmar, Thailand and Viet Nam—the Cambodian domestic trade in ivory is no longer significant and does not appear to be a major threat to elephants.

ACKNOWLEDGEMENTS

The authors are most appreciative of the financial assistance provided by The Aspinall Foundation and Elephant Family for their research in Cambodia; Lucy Vigne is also gratefully acknowledged for her assistance.

REFERENCES

- Kingdom of Cambodia (2012). *Tourism Statistics Annual Report 2011*. Statistics and Tourism Information Department, Ministry of Tourism, Phnom Penh.
- Kingdom of Cambodia (2013). *Tourism Statistics Annual Report 2012*. Statistics and Tourism Information Department, Ministry of Tourism, Phnom Penh, unpublished.
- Maltby, M. and Bouchier, G. (2011). Current status of Asian Elephants in Cambodia. *Gajah* 35:36–42.
- Martin, E. and Phipps, M. (1996). A review of the wild animal trade in Cambodia. *TRAFFIC Bulletin* 16(2):45–60.
- Martin, E., and Stiles, D. (2002). *The South and South East Asian Ivory Markets*. Save the Elephants, Nairobi and London.
- Sanderson, J. (2001). *Wildlife Trade in Phnom Penh, Cambodia*. Center for Applied Biodiversity Sciences, Conservation International, Phnom Penh. Unpublished report.

Esmond Martin and Chryssee Martin are independent researchers who have been carrying out studies of the international ivory trade since the 1970s. Esmond Martin is a long-standing member of the IUCN/SSC African Elephant Specialist Group, the Asian Elephant Specialist Group, as well as both the African and Asian Rhino Specialist Groups. E-mail: rhino@wananchi.com



IVORY STOCKPILES:

PHILIPPINES: On 21 June 2013, more than five tonnes of elephant tusks were destroyed by the Philippines Government. The ivory was part of a stockpile that had been collected over a 17-year period.

In the most recent Elephant Trade Information System (ETIS) analysis, presented to Parties at the 16th meeting of the Conference of the Parties to CITES in March this year, the Philippines was among the nine countries and territories identified as being most heavily implicated in major illegal ivory trade flows. These nine are now required to submit action plans to improve their implementation of CITES ivory trade requirements. This obligation was directed at China and Thailand as end-use markets; Malaysia, Philippines, Hong Kong and Viet Nam as transit countries/territories; and Kenya, Tanzania and Uganda as ivory source, transit or exit points in Africa.

USA: Authorities in the USA have announced their intention to destroy some six tonnes of raw and carved whole tusks seized by US agents over the last 25 years in a push to deter the illegal trade in elephant ivory. The initial date for the event was postponed.

www.scmp.com/news/asia/article/1266100/manila-destroys-us-10m-seized-ivory-send-message-prevent-theft; www.cites.org/eng/cop16/doc/E-CoP16-3-02-02.pdf

ZIMBABWE: In recent months, poachers in Zimbabwe have resorted to killing elephants with the use of poison. More than 90 elephants died in Hwange National Park after a water hole was deliberately contaminated with cyanide. Nine poachers were arrested after rangers tracked them to a cache of ivory hidden in the park. The chemical also resulted in the death of smaller animals and predators feeding on the elephant carcasses.

www.bbc.co.uk/news/world-africa-24234927, 25 September 2013; TRAFFIC

ASIAN ELEPHANT LOANS FROM LAO PDR TO JAPAN

The Asian Elephant is included in Appendix I of CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) and trade is only permitted in exceptional circumstances. Lao PDR became a Party to CITES in 2004. Formerly known as Lan Xang, the land of a million elephants, Lao PDR now has a small remaining population of perhaps 1000 elephants, half of which live in the wild and the remainder in captivity (IUCN, 2012). In recent years it has become clear that Lao PDR plays a much larger role in the trade in ivory and elephant parts than previously thought, acting in part as a gateway into China (Nijman and Shepherd, 2012).

In June 2012, it was announced that six Asian Elephants *Elephas maximus* from Lao People's Democratic Republic (Lao PDR) were to be loaned to Tohoku Safari Park (Fukushima Prefecture), Iwate Safari (Iwate Prefecture), and World Monkey Park (Tochigi Prefecture), Japan, for a period of three years to support areas devastated by the 2011 tsunami (Anon., 2012). Known as "Japan-Lao Goodwill Elephants", the pachyderms arrived in July 2012. Reportedly the elephants are privately-owned but it is unclear if the animals were wild-caught or born in captivity.

CITES allows the loan of Appendix I species to circuses or travelling exhibitions provided the transactions are non-commercial and that none is exported pursuant to the criteria in Article III, paragraph 3 (which would require Lao PDR to declare a non-detriment finding), but similar exchanges of Asian Elephants have been heavily criticized in the past as being detrimental to the species (Hedges *et al.*, 2006). The loan is one of a series and after Thailand, Lao PDR now has the largest number of outstanding inter-country elephant loans. In 2000, 2003 and 2008, a total of 22 elephants (10 wild-caught, 12 captive-bred) were loaned to South Korean zoos, and in 2009, two individuals (origin unknown) were loaned to Pyongyang Zoo, North Korea. Another 12 Laotian captive-bred elephants were sent on loan by Thailand to South Korean zoos in 2001 and 2008. None of these elephants seems to have been returned to Lao PDR. In addition to these loans, since 2000 Lao PDR has exported 26 elephants to international zoos: two wild-caught individuals to Greece, 10 wild-caught and two captive-bred individuals to Kazakhstan, and 12 captive-bred individuals to China (CITES, 2013).

It should be noted that the reliability of the records in the CITES database is entirely dependent on Parties' accuracy in reporting these data. As well as discrepancies between officially reported import and export figures and the actual import or export figures (Blundell and Mascia, 2005; Nijman and Shepherd, 2010; Chen *et al.*, 2009), significant numbers of individuals declared as captive-bred are in fact wild-caught (Nijman, 2010). Prior to export, the Scientific Authorities of both importing and exporting Parties must provide assurance that the export is not detrimental to the survival of the species. The export of some 68 elephants from Lao PDR over a relatively short time period may suggest that this is detrimental to a wild population of possibly only 500 specimens, and calls for prudence in allowing any further exchanges.

The revision of *Resolution Conf. 10.10 Trade in elephant specimens* at the 16th meeting of the Conference of the Parties included insertion of a recommendation that "all elephant range States have in place legislative, regulatory, enforcement, or other measures to prevent illegal trade in live elephants". Trade in live Asian Elephants is likely to become an issue at future meetings of the CITES Standing Committee.

References

- Anon. (2012). Laotian elephants to spend 3-yr sojourn in Tohoku. *Yomiuri Shimbun*, 24 June.
- Blundell, A.G., and Mascia, M.B. (2005). Discrepancies in reported levels of international wildlife trade. *Conservation Biology* 19:2020–2025.
- Chen, T.H., Chang, H.C., and Lue, K.Y. (2009). Unregulated trade in turtle shells for Chinese Traditional Medicine in East and Southeast Asia: the case of Taiwan. *Chelonian Conservation Biology* 8:11–18.
- CITES (2013). CITES Trade Database. http://www.unep-wcmc-apps.org/citestrade/expert_accord.cfm?CFID=50066473&CFTOKEN=91932369.
- Hedges, S., Tyson, M.J., Sitompul, A.F., and Hammatt, H. (2006). Why inter-country loans will not help Sumatra's elephants. *Zoo Biology* 25:235–246.
- IUCN (2012). *IUCN Red List of Threatened Species*. www.iucnredlist.org. Viewed 11 April 2013.
- Nijman, V. (2010). An overview of international wildlife trade from Southeast Asia. *Biodiversity and Conservation* 19:1101–1114.
- Nijman, V., and Shepherd, C.R. (2010). The role of Asia in the global trade in CITES II-listed poison arrow frogs: hopping from Kazakhstan to Lebanon to Thailand and beyond. *Biodiversity and Conservation* 19:1963–1970.
- Nijman, V., and Shepherd, C.R. (2012). The role of Lao PDR in the ivory trade. *TRAFFIC Bulletin* 24(1):35–40.

Vincent Nijman, Oxford Wildlife Trade Research Group; Email: vnijman@brookes.ac.uk