

OBSERVATIONS OF THE HELMETED HORNBILL TRADE IN LAO PDR

SEPTEMBER 2016

Kanitha Krishnasamy, Boyd Leupen and Or Oi Ching





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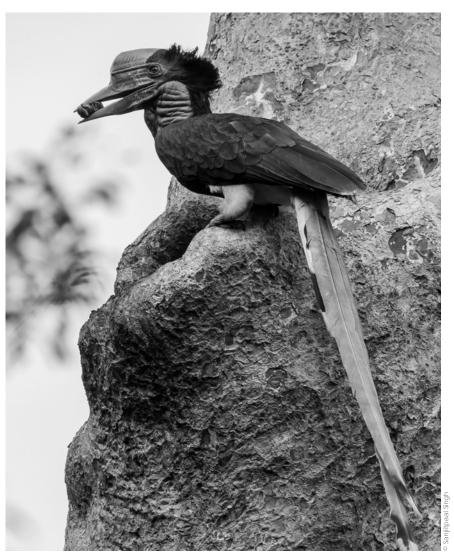
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Front cover photograph: A Helmeted Hornbill photographed at the Belum-Temengor Forest Complex in Peninsular Malaysia Credit: Sanjiitpaal Singh

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A Helmeted Hornbill photographed at the Belum-Temengor Forest Complex in Peninsular Malaysia

HELMETED HORNBILL TRADE IN LAO

A TRAFFIC survey in Lao PDR found dozens of Helmeted Hornbill products for sale. This hornbill is heavily poached and trafficked despite being prohibited from international trade. It is not found in Laos, nor protected by its laws.











3 Locations

8 Shops

74 Parts







Casques

Beads

Pendant

WHERE PRODUCTS WERE FOUND FOR SALE

One shop in Luang Prabang accounted for 46% of total products observed in Lao PDR







HELMETED HORNBILL CASQUES

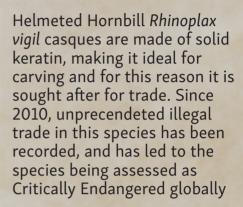






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ABBREVIATIONS AND ACRONYMS

CITES Convention on International Trade in Endangered Species of Wild Fauna and

Flora

CNY Chinese Yuan

DWNP Department of Wildlife and National Parks

EIA Environmental Investigation Agency

IUCN International Union for Conservation of Nature

LKP Laotian Kip

PDR People's Democratic Republic

S-NCSEZ Secretariat to the Lao National Committee for Special Economic Zone

UNODC United Nations Office on Drugs and Crime

USD US Dollar

WCS Wildlife Conservation Society

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EXECUTIVE SUMMARY

Unlike other species of hornbills, Helmeted Hornbill Rhinoplax vigil casques are made of solid keratin, making them ideal for carving, and for this reason they are sought after for trade. Since 2012, unprecedented illegal trade in this species has been recorded, with high numbers of Helmeted Hornbill items being seized in China, Indonesia and Hong Kong, Special Administrative Region (SAR). As a result of high levels of illegal trade in the species over a short period of time, in 2015, the species was assessed globally as being Critically Endangered. However, little is known of the market and trade dynamics of this species in many Asian countries and therefore conservation strategies are hampered.

To understand the trade dynamics in Lao People's Democratic Republic (PDR) better, TRAFFIC conducted an assessment of the open Helmeted Hornbill trade in five locations throughout Lao PDR. Surveys took place over eight days between April and July 2016. Surveys recorded 74 Helmeted Hornbill products in three locations. TRAFFIC recorded 18 Helmeted Hornbill products in Vientiane, 36 in Luang Prabang and 20 in the Golden Triangle Special Economic Zone. A total of 11 whole casques were recorded during the survey, two of which were carved. Beads (24) and pendants (18) were the most commonly observed items. Every shop that sold Helmeted Hornbill products also sold carved elephant ivory items in large numbers—between 100 to over 1000 ivory products each. Where shops advertised prices, these were advertised in either Chinese Yuan or US Dollars—not in local currency. All shops were operated by ethnic Chinese, with all traders in Vientiane and Luang Prabang stating they were from mainland China. This species does not occur in Lao PDR and it is not protected by national legislation. However, it is listed in Appendix I of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), prohibiting any international commercial trade. Lao PDR has been a Party to CITES since 2004. The high volume of products observed as offered for sale during our survey therefore represents a violation of CITES regulations.

Information recorded during this survey provides a baseline for product availability at a given point in time. Although the number of products observed was not high, it is concerning as it involves a Critically Endangered, CITES Appendix I listed species. This has previously been raised as a concern following CITES Secretariat missions to Lao PDR. The most recent of these missions was conducted from 4-8 July 2016, just 11 days before TRAFFIC's second visit in Lao PDR. Foremost to Lao PDR being able to commit to and implement CITES regulations is the crucial need for the government to revise its legislation that control the use, import, export and re-export of wildlife, particularly those involving non-native species. This remains a high priority for the country and the CITES mission in July 2016 identified significant loopholes in the national legislation, including matters related to the trade in specimens of species that are not native to Lao PDR. Lao PDR has previously come under pressure at the 16th CITES Conference of Parties (CoP) to improve its implementation of CITES. A year later, the country was subjected to an oversight process by CITES for its role in the illegal ivory trade—Lao PDR was asked to develop and implement a time-bound National Ivory Action Plan, a process that still remains in place.

Considering the close trade link between China and Lao PDR, including the presence of traders and businesses that stated they were from mainland China, close collaboration on investigations and law enforcement action between the two countries is critical. Intelligence-led investigations into trade routes and individuals and/or organized networks involved in such crime must be made a priority, from point of source to consumer. Given Lao PDRs disinclination to take action on violations involving non-native species in the country, law enforcement efforts at border points become extremely crucial to cut off any supply into Lao PDR.

Trends in the Helmeted Hornbill trade should continually be monitored to document patterns, including in neighbouring countries of Lao PDR. China's influence in places like the Golden Triangle Special Economic Zone points to the significance of—and need for—China-Lao PDR co-operation to end such trade. The CITES Secretariat's mission to Lao PDR reinforced this need, as there are no clear guidelines on the operation of these Economic Zones in relation to trade in CITES-listed species. This should be key to any deliberations for transboundary enforcement collaboration between China and Lao PDR. A pioneering law enforcement workshop between the two countries was recently held, in June 2016, in Xishuangbana in China's Yunnan province, which also borders Lao PDR and Myanmar. This workshop discussed the need to strengthen bilateral co-operation including on information exchange, joint enforcement actions and co-operation and awareness raising.

International pressure for Lao PDR to shut down the illegal trade will be a critical component in safeguarding this species from extinction. For example, one of the locations found to be selling a Helmeted Hornbill casque and pendant (and many ivory products) was a luxury hotel and Convention Centre in the heart of Vientiane. Governments organizing events should be discouraged from doing so at locations such as these that openly violate CITES. Such a position sends a strong message against those openly violating CITES protocols.

Since 2012, the number of Helmeted Hornbill seizures have persisted, with high volumes being reported by Indonesia. If the enforcement and regulation efforts as well as demand for this species, in both source and consumer countries do not succeed in abating demand for this species, Indonesian Helmeted Hornbill populations are likely to reduce significantly and perhaps disappear. Should this happen, it will force poachers to look for the species in the other range States, in particular Malaysia and Thailand, where populations would in turn become vulnerable to poaching, if they are not already. The IUCN Red List of Threatened Species assessment for the species postulates that Malaysia is likely to become the next target for the species once the Indonesian supply is exploited. Only with a suite of all these efforts can the poaching of Helmeted Hornbills be reduced and the illegal trade in their parts and products be brought to an end.

BACKGROUND AND INTRODUCTION

Hornbills have long been the subject of legends, ceremonies and beliefs, particularly for use in traditional costumes and dancing in Borneo (Bennett *et al.*, 1997; Anon., 2012). Their meat has also been reported to be consumed there (Bennett *et al.*, 1997). The birds' most distinguishing feature is undoubtedly their large casques. Unlike the casques of other hornbill species (which are generally hollow), the Helmeted Hornbill *Rhinoplax vigil* casque consists of solid keratin (Kane, 1981; Kemp, 2001). Keratin is one of a family of fibrous structural proteins and is found in the outer layer of animal tissue, e.g. in mammalian hairs, horns, nails, quills, baleen plates, scales, claws and hooves, in reptile shells, nails, scales and claws as well as in birds' feathers, claws and beaks (McKittrick *et al.*, 2012). The Chinese are known to refer this material as "ho-ting" or "He-ding-hong" (智页红) in Mandarin, which also has its origins from the Malay word "gading", which means ivory (Kane, 1981). Keratin is softer than elephant dentine (a calcified tissue of the body, highly mineralized and one of the four major components of vertebrate teeth), making it ideal for carving (Collar, 2015). Combined with its attractive yellow, orange and/or red coloring of the casque, it is prized as a luxury commodity and being traded as "hornbill ivory" or "red ivory" (CITES, 2016a).

The current international trade in—and use of—Helmeted Hornbill products is a direct threat to the survival of the species (Collar, 2015; Beastall *et al.*, 2016). This trade dates back centuries, with Helmeted Hornbill products being sent as tribute gifts to the Tang Dynasty between 618 and 907 AD. Records of similar tribute gifts to the Ming Court in China, from the Boni court (old Brunei Darussalam), in the 14th century also exist (Kane, 1981; Kurz, 2014). A curator of the Japanese section of the British Museum notes that some records exist showing that hornbill ivory was presented to the Japanese Shogun in the 1600s (BBC News, 2015). While carvers in the past mainly created belts and snuff bottles for the Chinese and Japanese markets, carvings and productions today have evolved towards jewelry and decorative items, some even noting interest among Western collectors (Schuyler, 1950; Kane, 1981). The current rising demand for these carved trinkets and ornaments is the single greatest threat to the survival of the species (Collar, 2015; Beastall *et al.*, 2016; CITES, 2016a; IUCN, 2016).

Present trends of poaching and illegal trade are likely to continue and even intensify, with the demand for Helmeted Hornbill products having risen steeply in recent years (Beastall *et al.*, 2016). Between March 2012 and August 2014, a minimum of 31 seizures occurred in China and Indonesia alone, involving no fewer than 2170 heads and/or casques (Beastall *et al.*, 2016). In 2013, an estimated 500 Helmeted Hornbills were reportedly poached each month from three areas in Indonesia (Stewart, 2015). In June 2015, two dealers who were arrested in Sumatra, Indonesia, divulged that they had sold 124 casques to a middleman in China over a six-month period that year (Wildlife Conservation Society, 2015). TRAFFIC's monitoring of 25 e-commerce and antique selling websites in China recorded more than 46 transactions involving Helmeted Hornbill casques within a month period of time (Yu and Jia, 2015). In 2014, TRAFFIC researchers found four carved Helmeted Hornbill casques during a survey in Mong La market on the Myanmar-China border, the first record of trade in this species in Myanmar (Beastall *et al.*, 2016).

In 2016, the Indonesian government submitted a document to the CITES Secretariat, entitled "Illegal Trade in the Helmeted Hornbill (*Rhinoplax vigil*)", proposing that CITES Parties adopt a resolution at the 17th Meeting of the Convention of Parties (CoP17) in September 2016, in order to control the trade in the species (CITES, 2016a). The Indonesian government submitted this proposal on the basis that the species continues to be hunted for trade despite the government's law enforcement efforts, including the arrest of about 20 poachers. Indonesia's proposed resolution urges all CITES Parties to conduct a series of actions including legal and policy reform, introduction of law enforcement control mechanisms to eliminate physical and online market availability,

conservation action planning, awareness raising as well as a report to the CITES Secretariat on the progress of implementation of this resolution.

The largest consumer of Helmeted Hornbill ivory is China, or members of Chinese communities in Southeast Asian countries (EIA, 2015a; Bale, 2016; CITES, 2016a). Documented seizure records show that the majority of Helmeted Hornbills are poached in Indonesian Borneo and Sumatra and then smuggled to China, where the casques are carved for commercial sale (Stewart, 2015; EIA, 2015b; Beastall *et al.*, 2016). Although the levels of poaching in Indonesia as well as the trade in Helmeted Hornbill involving China may be better understood, the same level of understanding of other national markets remains largely unknown. This knowledge is of vital importance if we are to understand and eventually tackle this trade, and prevent the Helmeted Hornbill from going extinct.

In this regard, an assessment of the Helmeted Hornbill trade in Lao PDR, which lies geographically between the Helmeted Hornbill's native range and China, is critical. This is especially so considering the country's proven role of importance in the international illegal wildlife trade, including its wildlife trade relationship with China (Butler, 2009; Foley et al., 2011; Burgess et al., 2014; CITES, 2014; Livingstone and Shepherd, 2014; CITES, 2015; DLA Piper, 2015; EIA, 2015b; Greatorex et al., 2016; Milliken et al., 2016; UNODC, 2016). Stemming from an earlier identification of its role at the 16th CITES CoP on the illegal ivory trade, in 2014, the country was subjected to a CITES oversight process — Lao PDR was asked to develop and implement a time-bound National Ivory Action Plan, a process that still remains in place (Milliken et al. 2013; CITES, 2014; Milliken et al. 2016). The 66th CITES Standing Committee meeting in January 2016 recommended that the CITES Secretariat conduct a technical mission to Lao PDR under Article XIII of the Convention to determine whether provisions of the Convention are being effectively implemented by Lao PDR, including on the issue of trade in CITES-listed species, national legislation, and trade controls (CITES, 2016b). This was initiated after the CITES Secretariat conducted two other missions to the country in 2011 and 2013, the follow-up responses by Lao PDR which were considered insufficient. The most recent mission took place from 4-8 July 2016 and is further discussed below

One investigation in 2015 found a strong relationship between China and wildlife trade activities occurring in Lao PDR, including the trade in Helmeted Hornbills (EIA, 2015b). This investigation revealed that Helmeted Hornbill carvings were obtained from Fujian Province in southern China and subsequently smuggled into Lao PDR. Apart from this investigation, little is known about the nature of Lao PDR's Helmeted Hornbill trade. Given the increasing popularity of hornbill ivory and Lao PDR's role in illegal wildlife trade, TRAFFIC undertook this assessment of Lao PDR's Helmeted Hornbill trade in order to better understand its scale and dynamics. This paper documents the findings from that study.

PROTECTION AND LEGISLATION

The largest of all Asian hornbill species, the Helmeted Hornbill is legally protected in all its range States. It is found in Brunei Darussalam, Indonesia, Malaysia, Myanmar and Thailand (BirdLife International 2016, IUCN 2016). It was formerly native to Singapore as well, but has since been extirpated there (IUCN, 2016). In 2012, the Helmeted Hornbill was assessed by the International Union for the Conservation of Nature (IUCN) as being Near Threatened. However, just three years later, in 2015, owing to the mounting threat of the hornbill ivory trade, Helmeted Hornbills was up-listed to Critically Endangered (IUCN, 2016). It is generally thought to be scarce and occurs at low densities; in Sumatra, Helmeted Hornbills appear to have disappeared from habitats where it was previously abundant (IUCN, 2016). The species is listed in Appendix I of CITES, meaning that all international commercial trade in the species is prohibited.

Lao PDR does not have specific legislation for implementing CITES, however some general text contained within several pieces of legislation is relevant to the implementation of CITES within the country (CITES, 2016b). One of these pieces of legislation is the Wildlife and Aquatic Law 2007, the country's primary piece of wildlife legislation. However, this law only governs native species and the Helmeted Hornbill does not occur in Lao PDR. Thus, like other CITES Appendix I listed species not occurring in Lao PDR, the Helmeted Hornbill is offered no protection under this legislation, impeding legal enforcement of CITES in Lao PDR. Indeed, Lao PDR has been assessed by CITES as being a "category 3 country" meaning that its "legislation...is believed generally not to meet the requirements for the implementation of CITES" (CITES, 2016c).



Hornbill beak tips were among hundreds of animal parts seized in raids in Malaysia in August 2016



METHODS

Market surveys were conducted by TRAFFIC over eight days between April and July 2016. Surveys were conducted exclusively in the northern half of Lao PDR, based upon reports from conservation organizations and media that identified this region as the area where Lao PDR's wildlife trade is most prolific. Shops that sold elephant ivory were visited during the survey, as these outlets were thought to have a higher likelihood of selling Helmeted Hornbill products. Shops and markets were visited in Boten Specific Economic Zone, Golden Triangle Special Economic Zone, Luang Namtha, Luang Prabang and Vientiane (Figure 1). All locations and venues were visited once. All openly available Helmeted Hornbill products were counted. Price data were acquired where possible, either by observing the advertised price or by asking the seller. In the case of the latter, the first price given was recorded and no further bargaining was conducted. All transactions observed were quoted in Chinese Yuan or US Dollars. A conversion rate of US Dollar (USD) 1 = 6.68 Chinese Yuan (CNY) / 1 CNY = 0.15 USD (https://www.oanda.com/currency/converter/ accessed on 25 July 2016) was used. Photographs of displayed goods were taken opportunistically.



RESULTS

Open availability of Helmeted Hornbill products

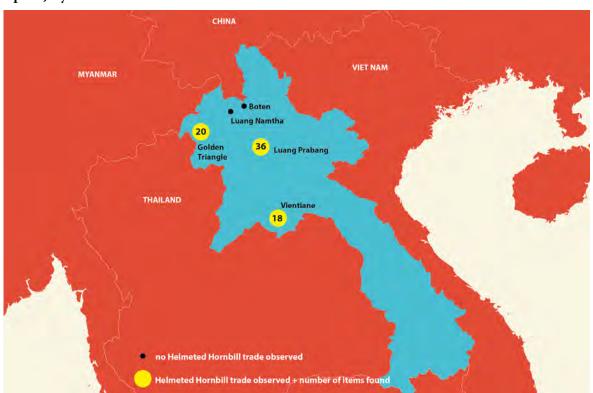
A total of 33 outlets were visited during the market surveys. Of these, eight outlets (Table 1) in three of the surveyed locations, namely Vientiane, Luang Prabang and the Golden Triangle Special Economic Zone were found to be openly selling Helmeted Hornbill products, recording a minimum of 74 individual items. No Helmeted Hornbill products were observed in Boten Specific Economic Zone or in Luang Namtha (Figure 1). The majority of observed products consisted of loose beads, which were likely to be stringed together as bracelets.

Table 1: Helmeted Hornbill products observed for trade in Lao PDR between April and July 2016

Location	Vientiane				Luang Prabang		Golden Triangle Special Economic Zone		Total
Survey Data	19 April	20 April			25 April		20 July		
Shop Name	Outlet 1	Outlet 2	Outlet 3	Outlet 4	Outlet 5	Outlet 6	Outlet 7	Outlet 8	
Casque (carved and uncarved)	1	1	2	2			5 (2 were carved)		11
Pendant	1	7		2	1		7		18
Beads				2	24				26
Necklace (including pendant)					5	1	1	1	8
Necklace (mixed with elephant ivory)							1		1
Bracelet					4	1	4	1	10
Total	2	8	2	6	34	2	18	2	74
Total by Area	18				36		20		



Figure 1: Locations in which Helmeted Hornbill products were found openly for sale between April–July 2016



Of the three locations selling Helmeted Hornbill products, the highest number was recorded in Luang Prabang; a city certified as a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage Site. One shop in Luang Prabang (Outlet 5) accounted for 94% of the total Helmeted Hornbill items recorded in this city, and 46% of the total products recorded in Lao PDR. In addition to the 34 items recorded for sale in this shop, the owner of the store was wearing a beaded necklace, which included a large (approximately 8 cm long) carved Helmeted Hornbill pendant. This item was not offered for sale. The carved pendants that were observed throughout the survey generally measured between 5 and 8 cm in length, and were most often carved so as to represent the Goddess Guanyin or other Chinese deities (Figures 2a, b and c).

Figure 2: (a), (b) and (c): Commonly observed Helmeted Hornbill carvings in Lao PDR in April 2016, representing Chinese deities.



In each shop where Helmeted Hornbill products were found, elephant ivory was also available for sale (between 100-1000 elephant ivory products per shop) (Figure 3). In one shop in the Golden Triangle Special Economic Zone, one necklace was found in which both Helmeted Hornbill casques and ivory had been used.

Traders were engaged in conversation to understand trade dynamics in all places, with the exception of those operating in the Golden Triangle. Traders in Vientiane and Luang Prabang were very conversational and engaging. In contrast, none of the traders in the Golden Triangle was interested in engaging in any type of conversation, therefore limiting researchers to only counting the items for sale, without any further investigations. Price data were also not available in the Golden Triangle, and similarly, no pictures could be taken.

Figure 3: Helmeted Hornbill products (three small bottles with five Helmeted Hornbill beads each), displayed amongst elephant ivory products in Luang Prabang in April 2016



In Vientiane and Luang Prabang, traders claimed that all Helmeted Hornbill products were acquired from China. Through conversations with the shop traders here, all of them revealed that they themselves were from mainland China; some noted that they either have families back home, while others noted having moved to Lao PDR a long time ago. Each of them spoke in Mandarin, and prices on both Vientiane and Luang Prabang were quoted in both CNY and USD. The trader in one shop in Vientiane calculated the price for a carved Helmeted Hornbill pendant in CNY, and later quoted an equivalent price in USD. The price of this particular pendant (Figure 2a) was quoted at CNY300/g, totalling CNY9000 (USD1386) for the whole item. This particular shop advertised all prices, including its elephant ivory, in USD. This shop was also advertising the sale of a Helmeted Hornbill casque for USD 3700 (Figure 4). Traders here mentioned that if the researchers were interested in purchasing, they would also accept Laotian Kip (LKP), although they did not mention the value of the items in Kip. Prices of products in this shop, which is located in Vientiane's upscale Convention Hotel, were the highest compared with prices recorded elsewhere in Vientiane and Lao PDR.

Figure 4: A Helmeted Hornbill head and casque for sale for USD3700 in Vientiane in April 2016.



Sources

All traders in Vientiane and Luang Prabang reported that their Helmeted Hornbill products were brought in from China. One trader claimed that he also had networks in Kalimantan, Indonesia, which enabled him to source Helmeted Hornbill products directly from a range State. Although these statements cannot be verified, they are consistent with previous information regarding international Helmeted Hornbill trade routes. Raw Helmeted Hornbill products are often smuggled from Indonesia and sent to China, for example to the southeastern Province of Fujian (Beastall *et al.*, 2016); the exact mode of transportation is unknown. Fujian's city of Putian has been reported as having a large carving industry for wildlife products, including precious woods (EIA, 2015b). A search on an online platform for China's international trade services showed that at least 100 carvers for all types of arts and crafts exist here (httml?p=5&a=fe&c=4634#). After the completion of carving in China, Helmeted Hornbill products (and other wildlife parts such as tigers and rhino horn shavings) have been reported to be smuggled into Lao PDR (EIA, 2015b).

In 2013, Indonesian authorities arrested four Chinese nationals at the country's international airport in Jakarta for attempting to smuggle 248 Helmeted Hornbill casques and 189 pangolin scales; authorities reported that the items were being smuggled to Hong Kong via a commercial Chinese-owned airline (FoxNews, 2013; Poskotanews, 2013). The same month, Indonesian authorities again arrested a Fujian-born Chinese national who was living in West Kalimantan for attempting to smuggle 24 hornbill casques (Anon, 2013). Although these seizure records do not specifically implicate Lao PDR, China's heavy involvement is noteworthy and perhaps relevant to the open trade in Lao PDR. Given that China has made seizures of Helmeted Hornbill products (Beastall *et al.*, 2016), the likelihood of the country acting as a source or conduit for products being supplied for trade in Lao PDR is suspected to be high. The trade link between China and Lao PDR is undeniable and underscores the need for collaborative action between both governments.

Demand and consumption

The fact that all shops in which Helmeted Hornbill products were found were operated by ethnic Chinese or nationals from that country, points at the dominant trader and customer base for Helmeted Hornbill products. Conversations with customers were held in Mandarin, although in most shops, traders could converse in English. The three cities in which Helmeted Hornbill products were found clearly catered for the ethnic Chinese market. In one shop in Luang Prabang, Chinese tourists were observed purchasing ivory products, with payments made in CNY. While the true nationalities of every purchaser in the shop cannot be assessed, it should be noted that all traders that were engaged in conversations (in six of the eight shops) that sold Helmeted Hornbill products stated that they were from mainland China.

Of the survey locations, Boten is the closest town to the Chinese border, followed by Luang Namtha. However, not a single Helmeted Hornbill product was observed in either location. Luang Namtha is a small, less developed town than Vientiane and Luang Prabang that appeared to have very little in the form of tourism products. All hotels and accommodation types observed here were small, in the form of inns or guest houses. Two of the surveyed locations, namely Boten and the Golden Triangle area, are designated Economic Zones in Lao PDR. Both of these cities are subject to an extensive Chinese influence, with both visitors and investors being predominantly Chinese (Secretariat to the Lao National Committee for Special Economic Zone, 2012). CNY was accepted as a currency in both places, and clocks in Boten were fixed for the mainland Chinese time zone. While no Helmeted Hornbill products were openly available in Boten, a sizable number was recorded in the Golden Triangle. The same holds true for elephant ivory availability.

The reasons behind the lack of any Helmeted Hornbill products (and ivory) in the Economic Zone in Boten is unclear, however the presence of a casino in the Golden Triangle is thought to be

an influencing factor on product availability here as well as trade activity, compared to Boten. A primary reason for the low levels of trade activity observed in Boten could be the shutting down of casinos there which was thought to influence economic activity (Gluckman, 2011; Strangio, 2016; Or and Krishnasamy, in prep). Boten used to receive thousands of tourists a month from across the Chinese border in Yunnan Province. However, the closure of casinos here, as a result of pressure from China in 2011 due to Chinese gamblers being held hostage in Lao PDR to settle debts, reduced the once vibrant place into the sleepy town it is now (Gluckman, 2011; Ganjanakhundee, 2013; EIA, 2015b; Or and Krishnasamy, in prep).



A variety of hornbill products displayed for sale in one outlet in Vientiane.

CONCLUSION AND RECOMMENDATIONS

The information recorded during our market survey provides a baseline for product availability at a given point in time, and while the volume of products is not as high, compared to elephant ivory products that were seen in the hundreds or thousands, this occurrence remains concerning. All trade observations have been shared with law enforcement authorities in Lao PDR. As a requirement under CITES, national legislation of CITES Parties must include provisions to regulate or control the use and trade of CITES-listed species. According to Article VIII of the Convention, this specifically should include the prohibition of trade in specimens that are in violation of the Convention, including to penalize trade in, or possession of, such specimens, or both, whether the species concerned are native to the country or not (CITES, 1973; CITES, 2016c). Without such legislation, Parties will not be able to comply with the requirements of the Convention. Legislation is clearly insufficient in the case of Lao PDR (CITES, 2016b), where traders were found blatantly selling prohibited CITES Appendix I-listed Helmeted Hornbill products. A revision of Lao PDR's wildlife legislation is therefore timely and urgently needed. In the meantime, given Lao PDRs disinclination to take action on violations involving non-native species in the country, law enforcement efforts at border points become extremely crucial to cut off any supply of Helmeted Hornbill ivory into Lao PDR.

The CITES Secretariat mission to Lao PDR was conducted in July 2016 (CITES, 2016b). The CITES Secretariat mission concluded that Lao PDR's efforts to implement CITES must be improved on various matters including those concerning legislation, trade in CITES-listed species and the need for neighbouring countries, including China, to co-operate and ensure effective implementation of the Convention (CITES, 2016b). The CITES Secretariat's mission to Lao PDR in July 2016 noted that it is "concerned that some CITES species included in Appendix I or II are adversely affected by illegal, unsustainable or untraceable trade and that the provisions of the Convention are not being effectively implemented in Lao PDR". Outcomes from this mission reported that Lao PDR intends to update its species listing in the law in 2017, but does not give a specified date by when this will be initiated or completed. Until such time as legal revisions are completed, law enforcement authorities will continue to be disempowered from taking effective legal actions in the case of illegal wildlife trade involving highly endangered wildlife.

Trends in the Helmeted Hornbill trade must continue to be monitored by conservation organizations and law enforcement authorities, including in key markets in Lao PDR's neighbouring countries. China's influence in places like the Golden Triangle Special Economic Zone points to the significance of—and need for—China-Lao PDR co-operation to end this trade. Further, protocols for governing trade in Lao PDR's Economic Zones are important and should be established. The report from the CITES Secretariat mission to Lao PDR in 2016 supports this; it identified an urgent need to adopt clear guidelines regarding the consumption and trade in CITESlisted species within the Economic Zones. This particular area should be key to any deliberations for transboundary enforcement collaboration between China and Lao PDR. A pioneering law enforcement workshop between the two countries was recently held in Xishuangbanna in China's Yunnan province, which also borders Lao PDR and Myanmar (TRAFFIC, 2016a). This workshop discussed the need to strengthen bilateral co-operation including on information exchange, *joint enforcement actions and co-operation and awareness raising.* Given the evident link of trade activity, including traders, for this species between China and Lao PDR, investigation into Chinese nationals that are in any way involved in the Helmeted Hornbill trade will be critical in any successful law enforcement efforts. Intelligence-led investigations along the entire trade chainfrom source to manufacturers to consumers-must be undertaken to determine the scope of the trade chain, including the involvement of other countries and territories not specifically mentioned in this paper. Further, as a form of international pressure, governments organizing official

functions in Lao PDR should avoid doing so at Vientiane's luxury hotel and Convention Centre that was found to be openly selling Helmeted Hornbill products (as well as many elephant ivory products). Such a position sends a strong message against those openly violating CITES protocols.

Since 2012, the number of Helmeted Hornbill seizures in China and Indonesia have persisted, with high volumes being reported by Indonesia. If the enforcement and regulation efforts, as well as demand for this species, in both source and consumer countries does not abate, Indonesian Helmeted Hornbill populations are likely to reduce significantly and perhaps disappear, which will force poachers and traders to look for the species in other range states, such as Malaysia and Thailand where populations in turn will become vulnerable to poaching, if they are not already. Just last month, in August 2016, the Department of Wildlife and National Parks (DWNP) Peninsular Malaysia seized over 200 wildlife parts in a series of raids, which included one Helmeted Hornbill casque and over 45 tips of hornbill beaks (Figure 5) (Cheng, 2016; TRAFFIC, 2016b). This is the first time a seizure of this nature has been reported by the government and serves to illustrate that this trade is expanding to other previously exported countries; the source of these hornbill parts are currently unknown. The IUCN assessment for the species postulates that Malaysia is likely the next target for the species once the Indonesian supply is exploited (BirdLife International, 2016; IUCN, 2016). Only with a suite of all these efforts can the poaching of Helmeted Hornbills be reduced and the illegal trade in their parts and products be brought to an end.

Figure 5: Seizure of Helmeted Hornbill casque and tips of hornbill beaks by DWNP in August 2016



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