





THE USE OF ANIMALS AS PHOTO PROPS TO ATTRACT TOURISTS IN THAILAND:

A Case Study of the Slow Loris *Nycticebus* spp.

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hailand is a popular holiday destination and Phuket is one of the country's tourism hot spots. Some tourism businesses on the island have a history of using animals as props for tourists to pose with for photographic souvenirs. Animals used for such purposes include, in particular, primates, with an increasing use of slow lorises Nycticebus spp. In order to quantify this trade, which is illegal, the authors conducted monthly surveys in Patong (the main tourist resort in Phuket) between September 2012 and March 2013 and discovered that between four and 12 lorises per survey were being used as photo props. Monthly tourist reports of wildlife used for tourist entertainment between 2008 and 2013 (n=1374) further demonstrate that the trade in lorises is growing, with up to 58% of reports comprising loris sightings towards the end of the study period. Three species, including two potential subspecies and one species non-native to Thailand, were identified in the photo prop trade. From 2012-2013, 67 slow lorises were removed from the streets of Phuket (either confiscated by or surrendered to the authorities, or purchased by tourists). Of 10 animals examined during the survey, six had had their teeth clipped to make them less sharp. Apart from the potential detrimental impact of such trade on slow loris populations in the wild, bringing lorises to the island's tourist areas is potentially contributing to the risks associated with the introduction of invasive species. Penalties for offenders are small and although authorities regularly confiscate animals, they lack basic knowledge of loris care, taxonomy and rehabilitation techniques. Widespread education and public awareness campaigns are urgently needed, as are the establishment of appropriate rehabilitation facilities.

BACKGROUND

The modern consumer culture, with its tendency to collect souvenir photographs to record memories of brief and often superficial encounters with wildlife (Bulbeck, 2004; Curtin, 2009) may well be an important contributing factor to the profitable trade using animals as photo props. Taking photographs using threatened wildlife specimens as a prop is common throughout South-east Asia, China, Dubai, Saudi Arabia, Russia, Eastern Europe and the Caribbean Islands, in particular (Right Tourism, 2013). The equally popular public dissemination of such photographs via social networking sites may lead to the public perception that such species are not threatened (Ross et al., 2011, Schroepfer et al., 2011, Nekaris et al., 2013). In fact the photo prop trade is now being recognized as a growing threat for primate conservation (Caine et al., 2011). Although numerous cases can be found of the threats of photographing primates, either illegally caught or in their natural habitat throughout their range (McGreal, 2011)—which can cause stress to the animals-no published studies have quantified this threat yet. Examples of species that should be investigated for the conservation impacts from such trade include slow lorises Loris spp. in India (Kanagavel et al., 2013), the Philippine Tarsier Carlito syrichta in the Philippines (Yang-Martinez, 2011), Barbary Macaques Macaca sylvanus in Morocco (Maréchal et al., 2011) and White-handed Gibbons Hylobates lar in Thailand (Osterberg et al., 2014; Grey, 2012). Indeed Buckley (2012) states that the impact of rare animals used as souvenirs remains one of the leaststudied areas of research into sustainable tourism.

Fig. 1 (top): Slow lorises from the photo prop trade, Thailand, displaying three morphological differences. Left to right: *Nycticebus coucang* (completely dark crown and neck); "*N. tenasserimensis*" (light forking with white neck); and *N. bengalensis* (no forking and white crown and neck).

Introduction

Thailand is one of Asia's most popular foreign holiday destinations, with a concurrent flourishing domestic tourism industry (Cohen, 2009). The country receives more than 10 million international tourists a year, of which more than three million travel to Phuket (Kontogeorgopoulos, 2004; Tourism Authority of Thailand, 2013). Thailand is often marketed in tourism magazines with glossy pictures of exotic wildlife (Cohen, 2009; Curtin, 2009). For many tourists, trekking through dense forests to glimpse wildlife is not an appealing, or practical, option (Cohen, 2009). Instead, hundreds of contrived artificial settings have been established with both domestic and foreign tourists in mind in order to offer close encounters with Thailand's exotic wildlife, often using primates as the star attractions (Agoramoorthy and Hsu, 2005).

In line with the thriving tradition of using animals for tourist entertainment across Asia, Thailand has had a longstanding, flourishing trade in wildlife used as photo props (Cohen, 2009; McGreal, 2011). Animals used for this purpose to obtain money from tourists may range from those being used by licensed businesses promoting photo shoots (Tigers Panthera tigris and Asian Elephants Elephas maximus), or offering tourists the opportunity to film a short performance (i.e. monkey shows, elephant shows, snake charming), to the animals used by the illegal businesses on the streets. The latter typically use smaller, often baby, animals that tourists may hold and pose with for photographs (birds of prey e.g. Brahminy Kite *Haliastur indus*, iguanas *Iguana* spp., gibbons *Hylobates* spp. and slow lorises *Nycticebus* spp.) or pay to feed (street-begging elephants) (Right Tourism, 2013). It is not uncommon practice for these animals to be chained, drugged or mutilated to avoid injuring customers (Right Tourism, 2013). The heavy workload of the animals, combined with a poor diet, exposure to continual flash photography, and unnatural surroundings can lead to stress (c.f. Orams, 2002; Rehnus et al., 2013) and even death. Parallels occur in the ecotourism industry where the welfare of wild primates can be compromised by heavy tourist interactions including photography (Maréchal et al., 2011).

Recently, the trend for using small, nocturnal slow lorises Nycticebus spp. as photo prop animals in Thailand's popular holiday destinations has emerged. Two slow loris species occur in Thailand, the Bengal Slow Loris Nycticebus bengalensis and the Greater Slow Loris N. coucang (Nekaris and Bearder, 2011). Their distribution in Thailand is little known: there may be some overlap between the two species in the south of Thailand. It is not known which species occurs on Phuket (Pliosungnoen et al., 2010). Despite their transferral from CITES Appendix II to Appendix I in 2007, slow lorises remain openly for sale as pets and for use in traditional medicine throughout South-east Asia (Nekaris et al., 2010); the photo prop trade remains the least quantified of the threats to these animals.

In 2008, the International Primatological Society (IPS) issued a statement opposing the use of non-human primates as performers, photo props or actors (Caine et al., 2011). Here, the authors examine the photo prop trade in slow lorises Nycticebus spp. and the problems associated with this trade, presenting a case study from Thailand. They investigate whether the trade increased between 2008 and 2013, the impact of confiscations on reducing the numbers of photo prop animals available for tourists, and the taxonomy of the animals in trade. Recommendations for a conservation strategy are proposed.

METHODS

The authors focused their study on the island of Phuket, principally Patong beach and town, known for its exotic nightlife. Records of illegally kept wildlife covering the period 2008-2013, held by the Gibbon Rehabilitation Project (GRP), were analysed for the presence of slow loris reports. The GRP runs an education centre at the Bang Pae entrance to Khao Phra Thaew non-hunting area, the last sizeable protected rainforest area left on Phuket. Visited by holidaymakers year-round, the project encourages visitors to the centre to report any wildlife they have seen being used for tourist entertainment.

Many tourists who do not know what a slow loris is use alternative terms to describe them in their reports, including: "small, light brown babies", "lemurs" or "possums". Throughout the study period lorises were, with very few exceptions, only reported from the same bar-lined-street in Patong. The authors could therefore use the size and colour of the animals, and the location in which they had been seen to confirm species identity, whenever the reported animals were of vague description. Whenever more than one animal was reported from the same location in Patong, they were also recorded as slow lorises, since few other primates are used as photo props on Phuket at this time and those that may be seen are never used in large numbers.

The authors calculated the total number of lorises handed over, or confiscated, from Patong during the study period. Official reports were referred to in order to estimate the number of animals confiscated by the authorities. Information on lorises that had been confiscated was either communicated directly to the GRP by the Department of National Parks, Wildlife and Plant Conservation (DNP), or obtained from local newspapers. Slow lorises brought in by tourists to the GRP were also included in the total number.

Osterberg conducted surveys of animals used as photo props in Patong from January 2012 to March 2013. Between September 2012 and March 2013, the surveys were conducted on a once- or twice-monthly basis by walking the main tourist streets between two and five times, from mid- to late-afternoon until after nightfall, and recording the number of animals present. Whenever

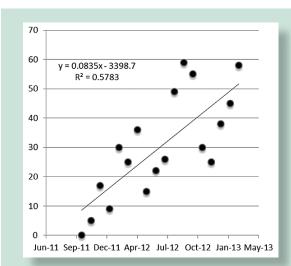


Fig. 2. The regression line shows that reports to the Gibbon Rehabilitation Project of slow lorises used in entertainment (n=135, as a proportion of all illegal wildlife reports, n=468) have substantially increased over time.

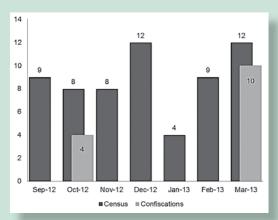


Fig. 3. Slow loris monthly survey results (dark) from Phuket's Patong beach and official confiscation numbers (light) during the same time period.

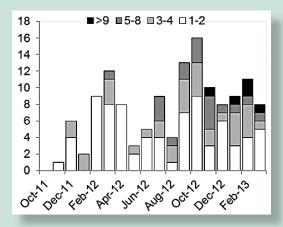


Fig. 4. Each bar represents the number of reports per month of slow lorises used as photo props, with a proportion of reports of I-2 animals (white), 3-4 animals (light grey), 5-8 animals (dark grey), and >9 animals (black).

possible, photographs were taken. Overall numbers may have been underestimated because the touts recognized the first author and avoided subsequent contact.

The taxonomy of lorises was determined from facial markings and colouration, through the examination of photographs and film-clips, and from newspaper articles and online videos originating from Phuket. The ages of the slow lorises in Patong were likewise estimated from photographs based on body size and the prevalence of longer white-tipped body hair, typical of infant or juvenile animals (Wiens and Zitzmann, 2003).

RESULTS

Examining over a thousand tourist reports (n=1374) to the GRP of animals being used as photo props, the authors found none describing slow lorises prior to October 2011, narrowing down further investigation to the 468 reports of wildlife photo props registered between October 2011 and March 2013. Until October 2012 all reports of slow lorises were from Patong beach. Between October 2012 and January 2013 occasional reports also came from Kata beach, another tourism hot spot south of Patong; 135 reports (29%) concerned slow lorises. After January 2012, the percentage of the monthly reports that concerned slow lorises did not fall below 10%, and in general steadily increased. The highest percentage of slow loris reports (58%) occurred in September 2012 and again in March 2013 (Fig. 2).

Between July 2012 and October 2013, 59 slow lorises were confiscated by authorities and eight were surrendered to the GRP, rendering a total of 67 lorises removed from the streets. Authorities seized the first three slow lorises in Patong on 10 July 2012, seven between 5 and 17 October 2012, and 10 on 28 March 2013. Between the end of March and April 2013, DNP authorities confiscated 34 slow lorises from Bangla Road in Patong. A further five confiscations occurred between September and October 2013 after a photo shoot with the singer Rihanna holding a loris from Patong was posted on social media. Confiscated lorises are sent to DNP wildlife sanctuary in Phang Nga Province. Between March and October 2013, eight slow lorises were brought into the GRP by locals and tourists, all of whom claimed that they had rescued the animals in order to save them. Of the ten confiscated or surrendered slow lorises that GRP staff were able to examine, six (60%) had had their anterior teeth cut down.

Confiscations had no discernible impact on the number of lorises observed during surveys or on loris sightings reported by tourists. Surveys between September 2012 and March 2013 revealed between four and 12 slow lorises, with an average of nine animals (Fig. 3). Indeed, tourists continued to report up to 10 animals towards the end of the study period (Fig. 4).

Of 34 images of different loris individuals from Patong beach (examples in Fig. 1), the majority (94%) were colour variants of *Nycticebus bengalensis*. Only two *N. coucang* specimens were seen. Twenty-one lorises (62%) exhibited juvenile characteristics, with a high prevalence of very young animals (<six months).



Fig. 5. Slow lorises used as photo props in

Patong, Phuket (above and below).

The high death rate of slow lorises with clipped teeth suggests that most animals entering Thailand's photo prop trade will likely die and certainly cannot be returned to the wild.



The photographers use instant, flash cameras, which produce a paper image that is immediately sold to the tourist. While previously animal handlers would be suspicious of the presence of people using their own cameras to film them, the prevalence nowadays of small cameras and mobile phones with cameras has made it easier to approach the touts without raising any immediate suspicion. Tourists who are clearly interested in the animals may take photographs with their own cameras provided they pay for the tout's paper image. The price for a photograph with a slow loris ranges from TB100 (Thai Baht) (GBP2.20/USD3.15) to TB500 (GBP10.00/USD15.70).

Discussion

Thailand is recognized as a transit country for illegal trade in various species of endangered wildlife (Nijman and Shepherd, 2011; Stiles, 2009), including lorises and their body parts (Nekaris *et al.*, 2010). Although some local people on Phuket have traditionally kept other primates as pets, slow lorises have not been in demand in this way owing to a long-held belief that these animals possess evil spirits, or are ghosts (P. Samphanthamit pers. comm. to P. Osterberg, May 2012; c.f. Nekaris *et al.*, 2010).

The authors have shown that a trade in lorises as photo props is now established in Phuket's tourism areas. This trend may be a result of the increasing rarity of gibbons in the wild—a popular animal in the photo prop trade—and resulting difficulties in obtaining baby gibbons to supply the markets (Osterberg *et al.*, 2014; Grey, 2012); a reflection of the growing international popularity of the slow loris within the wildlife trade (Nekaris *et al.*, 2013); or the fact that photo touts may find lorises easier than gibbons to handle and conceal when necessary (Navarro-Montes *et al.*, 2009).

Tighter regulation of the international trade in slow loris species (Nekaris and Nijman, 2007) has not had any notable impact in reducing the trade (Nijman, 2010). In Indonesia, the wildlife traders' absence of fear of legal action suggests adequate law enforcement is lacking (Shepherd, 2010) and in Thailand a similar situation has been noted. Throughout the study period, confiscations of lorises used as photo props seemed to have had no noticeable impact on the number of animals used by touts even in the weeks immediately after a raid. This may indicate that the number of lorises kept in reserve by the touts is much higher than the actual number of animals used on a daily basis. The authors are also aware that some foreigners living temporarily, or permanently, on Phuket have been known to buy lorises from touts to keep as pets in their homes, suggesting that the photo prop trade may be part of a larger, emerging, illegal trade in slow lorises (P. Osterberg, pers. obs). Once the loris photo prop trade had become established in Patongreportedly during the first half of 2012—no notable increase in the number of animals used every day was observed, suggesting that the touts may have been aware of a maximum number of animals that could be used profitably at any one time.

Numbers stemming from tourist accounts reported here are likely to be an underestimate simply because tourists confronted with lorises as photo props are often not sure what animal they are looking at. Over time, however, use of the term "loris" in GRP records has increased, perhaps due to project volunteers now being aware of the trade and able to help people identify the animals via photographs, or related to the increasing notoriety attached to the use of slow lorises as pets in popular culture (Nekaris et al., 2013). A similar lack of species awareness was recognized in Indonesia, where people who bought lorises in markets described them as cuscus (a common name for Australian possums), "cuscus angora" (a pet name used for possums), or pandas (Yayasan IAR, 2011). While the internet community demanded action when the singer Rihanna posed with a loris, resulting in the confiscation of five specimens from Patong, the touts were arrested but later released (Hance, 2013). It is understood by the authors that small fines (e.g. TB500 (GBP10.00/USD15.70)) have been imposed, but even the maximum penalty under the Wild Animal Preservation and Protection Act from 1992 for trade in this species—TB40 000 (GBP776/USD1219), or up to four years in gaol—would allow the touts to pay off the fine quickly and return to business. Authorities in loris range countries responsible for confiscation are similarly unaware of how to identify the slow loris, which may result in the introduction of potentially invasive species and welfare concerns for confiscated animals subsequently released (Navarro-Montes et al., 2009). Previously, authors have highlighted the problems of introducing nonnative slow loris species outside their range (Schulze and Groves, 2004; Nekaris and Jaffe, 2007).

The most likely candidate for Phuket's resident wild slow loris is the Greater Slow Loris Nycticebus coucang (Meijaard, 2003). The most common slow loris seen in the photo prop trade is the Bengal Slow Loris N. bengalensis, which occurs north of Thailand's Isthmus of Kra (Groves, 2001) and is likely not native to Phuket. Earlier classifications recognized several taxa within this species, and the variability seen within this study concurs with older taxonomies. Specimens displaying two morphological differences were seen frequently. The first were brown, fork-marked animals that resemble "N. tenasserimensis". Now a synonym of N. bengalensis, this dark-coloured, smaller bodied variant was originally described as a distinct species. The second type has whiter colouring, with sparse fork marks that fall into the specimen description for the larger-bodied, lighter coloured N. bengalensis (Osman Hill, 1953). Any releases of N. bengalensis by well-meaning individuals could disturb Phuket's native loris population and hinder the taxonomic confirmation of Phuket's "true" lorises (Schulze and Groves, 2004). Furthermore, it is known that the non-native Pygmy Slow Lorises N. pygmaeus are also widespread in both Thailand's photo prop and pet trade (Navarro-Montes et al., 2009). Inappropriate reintroduction of this species has also occurred, as can be seen from photos on social media from a wellknown Thai rescue centre. Very little is yet known about Thailand's slow lorises, so the species conservation impact of increased poaching for the illegal trade and of

the release of alien species can only be speculative at best; no taxonomic studies have been conducted to confirm species and sub-species identity in different parts of the country, no behavioural studies have been carried out in the wild to confirm diet and social habits and no country-wide census—or even presence or absence study in different forests—has been conducted to date. It has been recorded, however, that illegal trade in other parts of the range of slow lorises (e.g. Viet Nam, Cambodia, and Java, Indonesia) is decimating populations, and that the species may already be extinct in some areas (Nekaris and Bearder, 2011). The high death rate of animals with clipped teeth (Moore *et al.*, 2014) suggests that most animals entering Thailand's photo prop trade will likely die and certainly cannot be returned to the wild.

In addition to taxonomic and ecological problems issuing from inappropriate reintroductions, animal welfare must be considered too. Animals confiscated from the trade can be expected to be in poor condition due to the cutting and/or removal of teeth, inappropriate diets and unsuitable living conditions (c.f. Nekaris and Jaffe, 2007). Although authorities regularly confiscate animals, they lack suitable facilities to accommodate lorises and basic knowledge of care, taxonomy and rehabilitation techniques. At International Animal Rescue Indonesia, 64% of the 180 slow lorises admitted to their care are deemed unsuitable for reintroduction based on their poor health (Moore, 2012). This study suggests a similar proportion (60%) in Thailand. The release of slow lorises directly into the wild without rehabilitation is still commonly practiced in Thailand, and because this is done without any post-release monitoring or supplementary feeding, the survival rates of released animals are unknown (M. Mason pers. comm. to P. Osterberg, January 2012; P. Osterberg, pers. obs.). Existing scientifically run reintroduction programmes for lorises in other countries have encountered numerous problems. In one study of nine reintroduced Pygmy Slow Lorises N. pygmaeus in Viet Nam, two disappeared, two were killed by predators and two died of hypothermia (Streicher, 2004). The signal on the tracking devices of the remaining three was lost. In a second Vietnamese study of 10 Pygmy Slow Lorises, three died, four lost the radio collars used to track them, one had to be caught again, and only two were in good condition after just two months (Kenyon et al., 2014). In Java, six out of 11 reintroduced Javan Slow Lorises N. javanicus died, one was returned to the centre and, of the four individuals assumed to be surviving in the wild, only one is known to be alive and is still being monitored (Moore, 2012). These data show that reintroduction is no easy task, and that simply returning animals to the wild is rarely the best option.

A number of rescue centres in South-east Asia are dedicated to housing, caring for and rehabilitating captive lorises for eventual reintroduction (Nekaris and Bearder, 2011). The establishment of a species-specific rescue and rehabilitation facility for lorises, in conjunction with an extensive education campaign for tourists to Thailand, seems paramount. It is also recommended that a thorough study be undertaken of the national-level conservation threats to Thailand's two native loris species. Without widespread education and a shift in attitude by tourists, a decline in the use of slow lorises within the photo prop trade is unlikely.

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